JOSÉ RAFAEL MONEO VALLÉS: 1965-1985

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ABSTRACT

Rafael Moneo, a Spanish architect and educator who has been practicing architecture in Madrid since 1965, rose in the profession from local practitioner to designer of international reputation in the mid-1980s with his Museum of Roman Art in Mérida (1980-86) and into the highest ranks of academe when he assumed the chairmanship of the Department of Architecture at the Graduate School of Design at Harvard University (1985-1990).

Moneo's work falls into three distinct periods: the pre-Harvard Spanish years (1965-85), the five Harvard years (1985-90), and the post-Harvard international years (1990-present). This dissertation traces the systematic and reflective character of Moneo's double practice up to 1985; it fits his uninterrupted professional practice into the context of his academic career, suggesting that his commitment to both professional practice and knowledge of the discipline is what led him to form a coherent philosophy of design. Throughout the years the contents of his teaching and writing have imbued his built projects with a programmatic character derived from his critique of modern architecture in the 1960s, investigations in architectural theory in the 1970s, and interpretation of the history of Western architecture in the early 1980s and allowed him to achieve a synthetic reading of the modern within the Western tradition of building. It is his drive to design and explain the building, not as part of a local tradition, but as the work of a cultured architect able to transcend national borders that has allowed him to have an all-encompassing career that combines practice and teaching.

Moneo is generally considered to be the most independent thinker and the most intellectual of the architects of his generation. Through the influence of the Spanish philosopher José Ortega y Gasset Moneo's ability to "reabsorb his circumstances" was a source of necessity and freedom to connect practice with intellect: he could become both architect and educator furthering the cultural development of Spain. Using the Italian aesthete Luigi Pareyson's theory of "formativity," which regards material and form as inseparable, Moneo realized that the making of architectural form lay in its construction and formalized the principles of his philosophy of design.

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Preface

Rafael Moneo, a Spanish architect and educator who has been practicing architecture in Madrid since 1965, has over the years risen in the profession from local practitioner to designer of international reputation. At the same time, his name has also become increasingly prominent among postwar scholars of architectural theory, especially for his studies on type and typology published in the 1970s.

In the post-Franco years–from 1974 onwards–Spain has produced some notable architecture, and Spanish architects have attracted international attention, but none can claim to have reached the degree of prominence Moneo has attained. His reputation was made in the late 1980s when his Museum of Roman Art in Mérida (1980-86) was published to international acclaim. Soon thereafter he became chairman of the Department of Architecture at the Graduate School of Design at Harvard University, a post he held from 1985 to 1990. In 1996 he became the first Spanish architect to win the Pritzker prize. After more than fifteen years in the international limelight, however, the evolution of his singular work and career still remains largely unstudied, even as more and more of his projects are built on both sides of the Atlantic and receive broad coverage in the international architectural press.

Moneo's work falls into three distinct periods: the pre-Harvard Spanish years (1965-85), the post-Harvard international years (1990-present), with the five Harvard years (1985-90) acting as a transitional period in between. Each period is distinct from the others with regard both to his intellectual activities and his built production. In the pre-Harvard years teaching was an essential part of his career. Then his rigorous and systematic teaching and writing–some of it published in Spanish architectural magazines or by the schools of architecture in Madrid and Barcelona, and some presented in class or in conferences which remains unedited and unpublished in its original form–imbued his built projects with a programmatic, revisionist character that derived from his critique of modern and current architectural theory and his thorough knowledge of the history of

Western architecture.

During the Harvard years, administrative responsibilities were added to his teaching, but he still kept his professional practice alive with large commissions brought in through personal contacts in Spain. Designed from a distance, these projects are more independent, intuitive, and experimental than their predecessors. Since that time he has substantially reduced his teaching to accommodate an expanding practice both in Spain and abroad. His projects of this recent period are of a wide-ranging character, as he tries to capture the appropriateness of the place and culture in which they are built and make them suitable for public use. Some are reminiscent of his earlier work; others are experimental, but while his recent built work appears more independent and formalistic, it retains its continuity with the early work in its methodological rigor, reworking of themes and typological elements, and ability to absorb current trends.

It is now time to assess these projects in their entirety. To do so one has first to trace the evolution of Moneo's thinking through a synthetic analysis of his written and built work and to follow his rise from the ranks of what architectural critics and historians had classified as a regional but critical architect in the 1980s to an international architect in the 1990s. An accurate reading of his architectural production after 1985 is impossible without first achieving a thorough understanding of how Moneo produced his Spanish projects in the first twenty years of his career. This dissertation is meant to take a first step in that direction by focusing on his work up to 1985, both his written work–articles and essays published mainly in Spanish architectural magazines and journals and unpublished papers for lectures and conferences–and his built projects studied separately and presented chronologically to see what each contributed to his philosophy of design.

A cursory reading of Moneo's built work shows an array of diverse responses, as if he were able to respond to the projects presented to him in a manner free of prejudice, on the one hand, and fully aware of his obligations to the discipline, on the other. Some critics view his work as eclectic or mannerist, comparing him to, or seeing him as an extension of, his early master, Javier Sáenz de Oíza, a modernist architect who practiced in Madrid in the 1950s, in that they both approach each design *de novo*, drawing on a fresh reception of forms. Others explain his architecture as a reflective collage of

modernism. Those who have followed his career since the early years may feel some element of opportunism behind his moves in that he readjusts his projects to fit or respond to the current architectural discourse.

Moneo's work has always been studied on the premise that it responds to a particular problem with an intensely intellectual architectural language that seeks austerity and abstraction in architectural representation, on the one hand, and protection from criticism, on the other. In the early years of his career, his work attracted the attention of the architectural press in Madrid. His apprenticeships with Sáenz de Oíza–another Madrid architect and Jörn Utzon, his success in winning first prizes in architectural competitions and his early travels and writings opened the way for a successful professional career in Madrid. In 1968, the Madrid journal *Hogar y Arquitectura* published his first monograph on built projects and competitions. Juan Daniel Fullaondo, Moneo's classmate, his successor at Oíza's studio, and the editor of the journal *Nueva Forma,* first introduced him in an editorial and a monograph on his built work published in 1975. As someone close to Moneo's career since its inception, he took the liberty of providing hints about Moneo's personality in his diary-style notes, describing him as a great strategist with a cold intelligence hidden under the cover of a disingenuous primitivism; a man of diverse talents with an affinity for the nomadic life; patient and careful not to rush into the professional life; and with an infinite capacity to make the most of what he has. While most of these characterizations may be true, in 1975 no one could have suspected the intelligence that allowed Moneo to ascend the academic and professional ladder simultaneously, while safeguarding the freshness that continuous refinement of skills brings to a career.

Since then the architectural press has focused mainly on presenting his built work, ignoring his diverse talents in teaching and writing. In the analyses of Bankinter–his most celebrated building of the 1970s–by his fellow Spanish architects and critics, Moneo was portrayed on the one hand as a true disciple of Oíza, who replaced Oíza's

sensible and fluctuating mannerism with a cold and lucid mannerism,[1] set against Alejandro de la Sota's modernist purism. On the other hand, his "voluntary eclecticism," that allowed him "to incorporate successive discoveries of other authors in his architecture,"[2] was reviewed within his affinity with the critique of modernism in Europe. In the early 1980s, Daniele Vitale, an architect and professor at the Polytechnic Institute of Milan, presented Moneo's works in the pages of the Italian magazine *Lotus* as being the result of his analytical approach and his ability to interpret a theme, an occasion and a place rather than a program or type.[3] A year later Ignaci de Solá-Morales, architect and critic from Barcelona, expanded on Vitale's comments in the same magazine, noting Moneo's interpretive skills in the way the Mérida Museum evoked the way the Romans constructed their buildings. De Solá-Morales recognized the clarity of his critique of current architecture and his opinions on international trends. He argued that "at a time when current architecture seems dominated by a desire for an architectural discussion that rises to new levels of generality about some paradigmatic form, the work of Rafael Moneo directs its efforts towards the object and the circumscribed case which it has to resolve...."[4]

In the late 1980s after he was appointed chairman of the architecture department at Harvard, the international architectural press and architectural historians and critics in Europe and the United States started looking more closely at Moneo's work. Since then most of his buildings have been extensively published. While Kenneth Frampton's *Modern Architecture: A Critical History* (rev. ed. 1985) fails to acknowledge Moneo's Mérida museum, he does mention him briefly for the Bankinter, identifying him as a member of the regional school of Madrid. The same year Peter Buchanan presented the Mérida museum in the pages of *Architectural Review* (November 1985) and a year later in the *Progressive Architecture* (June 1986) and Moneo himself in the *Architectural Review*

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[1] Juan Daniel Fullaondo, "Notas de sociedad," *Nueva Forma* 108 (January 1975): 7.
[2] Gabriel Ruiz Cabrero, "Sobre Bankinter o un Americano en Madrid?," *Arquitectura* 208-209 (September - December 1977); *Bankinter 1972-1977* (Almeria: Colegio de Arquitectos de Almeria), p. 89.
[3] Daniele Vitale, "Rafael Moneo Architect: Designs and Works," *Lotus* 33 (1981): 67.
[4] Ignaci de Solá-Morales, "Support, Surface: Rafael Moneo's Design for the Archaeological Museum of Mérida," *Lotus* 35 (1982): 91.

(May-June 1986). In 1989 Francesco Dal Co wrote an article on the Mérida museum for the *a+u* (the first international coverage of Moneo's selected works in a magazine), in which he refers to the skill at construction that Moneo had acquired in his youth with the remark that "he continues to question it deeply in his architectural planning, continually scrutinizing his architectural principles."[5]

In 1992 Alan Colquhoun was invited to comment on Moneo's work by the *A&V Monografías de Arquitectura y Vivienda*, which was planning to publish Moneo's work between 1986 and 1992. Colquhoun was the first to analyze Moneo's work juxtaposing it to his most celebrated essay "On Typology," explaining how he applies the notion of type in his projects. According to Colquhoun, Moneo, in contrast to Rossi, uses context and a type chosen from a repertory of possible solutions as his starting points. Each project is singular in its specificity, clearly executed by an individual of talent.[6] William Curtis in his *Modern Architecture since 1990* (3rd ed. 1999) acknowledges at length the contribution made by Moneo's Mérida Museum. Moneo's work, far from belonging only to a regional architecture, is, according to Curtis, one of those "key works that refuse to fit the dictates or theoretical prescriptions of any movement thus blurring our understanding of the debate modernism-postmodernism of the 1980s."[7]

Until today the architectural press and books on twentieth-century architecture have only looked at Moneo's work in terms of his buildings. In 1999 Moneo published an anthology of his essays in recognition of his extensive written work spanning his career.[8] While he has published extensively in architectural magazines since 1961 and has an unquestionable reputation for his enlightened and critical teaching, it is mainly his built work and his skill as an architect that have been under scrutiny. But it is his drive to design and explain the building not as part of a local tradition but as the work of a cultured architect able to transcend national borders that has allowed him to have the all-encompassing career combining practice and teaching; studying it requires a careful

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[5] Francesco Dal Co, "On Moneo's National Museum of Roman Art, Mérida," *a+u* 227 (August 1989): 71.

[6] Alan Colquhoun, "Entre el tipo y el contexto: formas y elementos de una obra singular," *A&V Monografías de Arquitectura y Vivienda* 36 (1992): 8.

[7] William J. R. Curtis, *Modern Architecture since 1900, 3rd ed.* (London: Phaidon Press, 1999), p. 618.

[8] Rafael Moneo, *La Solitudine degli edifici e altri scritti.* Andrea Casiraghi and Daniele Vitale eds.

reading of their meeting points and interrelations.

Moneo's Spanish contemporaries and students may claim to have the inside line on his beginnings, saying that one has to understand the determination of the Navarran mentality (the Spanish province he originates from) that attaches Navarrans to their soil forever; that one has to be immersed in his affinity with bullfighting before one can begin to unravel his personality; that one has to experience firsthand the perennial competition between Spain's two major cities, Madrid and Barcelona, before one can understand the achievement in how Moneo conquered Barcelona with his teaching in the 1970s and his buildings in the 1980s; that one has to have a full understanding of the repercussions of the Franco era in postwar Spain, and so forth, before one is able to tell Moneo's story.

This thesis is not about Moneo's character; it is about the reflective character of his work. It is not about Moneo's Spanishness; it is about the atemporality of his work. That Moneo is the most intellectual architect of his generation is a statement that very often begins an analysis of his built projects, but no one has ever tried to explain precisely what that means. It is a statement used passively to note his double role as architect and educator, which could become instrumental if examined under the light of how he has produced his work. His uncanny interpretation of construction through experience and knowledge has raised his synthetic skills from the level of the factual to that of the intellectual. Such an examination of Moneo's work–both written and built–up to 1985 demonstrates that it is less occasional, less circumstantial, and less eclectic than is sometimes assumed. It shows that when viewed in the light of his teaching and writings, his buildings are the result of a coherent, realistic philosophy of design.

Moneo developed his philosophy of design primarily out of personal experience, enriched by his knowledge of the history and theories of architecture. Moneo claims to have found the principles of his philosophy of design in the Italian aesthete Pareyson's theory of "formativity." For Moneo as for Pareyson, the reality of architecture–the making of architectural form–is concluded in its construction. Material and form are inseparable. On the other hand, the dual commitment to the project (client, site) and the discipline (history, theory) is reinforced in his Ortegan position that architecture, unlike

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(Torino, London: Umberto Allemandi& Co., 1999).

art, is not a personal activity, but a social responsibility. Moneo claims that today's architecture has lost the coherence of the architecture of the past, which was based on the intimate connection between project and production, architecture and construction, form and image. The liberties he takes in the projection of the building and the capacity he has shown to use diverse themes, places, and programs are the result of fusing a solid structure that generates form with an interpretation of the project's circumstance that takes its inspiration from context, site, and history grounded in a strong tradition of building.

Moneo has never been interested in capturing the extraordinary or the original in the modernist sense that the new is oblivious to established traditions. According to Pareyson, tradition plays an active role in creation: it contains the paradigm that is the result of originality and innovation. Thus tradition and originality are closely tied to ensure continuity.[9] Moneo's work has evolved around a sequence of thoughts leading to the claim of architecture's autonomy through the recognition of its historical condition. Although the most recent perception is that Moneo's work, as Michael Hays put it in his *Architecture Theory since 1968*, "arises from a modernist understanding of production, tectonic density and compositional rigor" coupled with "a keeping-in-mind of the modernist tradition, a willingness to traverse it once again, but not to return uncritically to its heroism,"[10] it has become Moneo's mission to connect the modernist project with the Western tradition of building. Any claim for architecture's autonomy cannot stem from its attachment to extraneous theory, as most of his contemporaries tried to do in the late 1960s and 1970s, but from its historical continuity within a certain building tradition. It is in the act of building that solutions to problems of structure, form, construction, materials and techniques are tested for their commensurability, indivisibility and durability.

In the almost forty years of his career Moneo's work has been marked by his insistence on reworking models and themes that eventually provide him with landmark buildings able not only to summarize the evolution of his thinking, but also to materialize his critique of the professional and theoretical concerns of his time. Moneo produces

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[9] Luigi Pareyson, "Tradición y innovación," *Conversaciones de estética* (1966; Rpt, Madrid, 1987), p. 37.
[10] Michael Hays, *Architecture Theory since 1968* (Cambridge, Mass, 1999), p. 614.

architecture by applying an intellectual operation that is based on a critical approach to current architecture and history. His insistence on reviving the principles of architecture rather than form or function meticulously selected to solve the problem leads him to an atemporal, ahistorical architecture in which modernism's rationalism and expressionism are his codified, but not his stylistic, repertory.

Moneo could not have reached the level of refinement and maturity in his building production without the rigorous study of the architectural project that teaching compelled him to do and vice versa. In his writings, produced for teaching, conferences, or publications, the insider's view prevails as the most appropriate way to talk about the problems that concern the architect in his daily practice, as if his interest in building a building were driven by the need to write about it. In that respect Moneo followed what Ortega had claimed in his 1907 *Teoria del clasicismo* (Theory of Classicism): "For the one for whom problems do not exist, solutions are artificial, forced and paradoxical."[11] Following Pareyson, Moneo believes that generalization cannot occur without concrete reference to a learned skill. Reflection that ignores this skill falls into sterile abstraction, and skill that is denied a genuine philosophical elaboration is reduced to simple description.[12] His writing could not have acquired its interpretive, highly phenomenological understanding of architecture without the uninterrupted experience of building and construction.

Moneo elevates the experience of building from a purely architectural to an intellectual one in his attachment to the specificity of the circumstance, the interpretation of structure and material to form space, the methodological rigor, and the contemplation of form in the making of the architectural project. It is the two former that allude to diversity and dispersal in Moneo's production. It is the two later that bring continuity and unity to his work. This dual commitment in building and thinking about the building is what distinguishes Moneo's practice from that of his contemporaries. In this respect, the systematic labor of both activities–writing and building where one informs the other–and cannot be separated from each other without losing their coherence. It is the

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[11] Julian Marías, Introduction to José Ortega y Gasset, *Meditations on Quixote* (Chicago: University of Illinois Press, 2000), p.16.

parallel production of building and writing in the first twenty years that led to a philosophy of design ambitious in its conception, unique in its execution, paradigmatic in its totality, and impossible to emulate.

During these years his teaching assignments took him from Madrid to Barcelona and Cambridge, Massachusetts with shorter assignments in New York, Syracuse and Lausanne in between. From Tudela to Madrid to Barcelona to Cambridge, Massachusetts, Moneo fit an uninterrupted professional practice into a consolidated academic career, suggesting that his commitment both to knowledge of the discipline and to professional practice was what allowed him to dominate the field. He slowly and methodically expanded the boundaries of both together. The understanding produced by his combined role as architect, teacher, and thinker was recognized by his peers who, by giving him awards and commendations, enabled him to find an international clientele. Clients and juries who have considered Moneo's architecture and have been attracted as much by his mind and by the way he approaches a building and solves its problems as by his aesthetic, and all those in the architectural community who have come in contact with him and his work have sought to uncover the nature of his architecture. To that end this dissertation has tried to identify the events that have defined the seminal points in his career both as an architect and an educator as well as the principles and methodology that connect his writing with his building activities, and which together have resulted in the synthetic philosophy of design that led to his international recognition in the mid-1980s.

Moneo is as academic as he is professional; he is as intellectual as he is a builder; he is as much a classicist as he is a modernist. All these skills put together do not come without some failings. However, the essence of Moneo's work is to be found in its persistence in demonstrating the rewarding experience to be attached to architecture as construction. As a professional and builder he has been able to go beyond the guild's expectations and demands to elevate practice to theory; as an academic and intellectual he has managed to consolidate his positions–modern architecture filtered through the classical tradition, the role of theory in practice, the definition of architectural form–in the scrutiny of the building as a constructive experience. His career would not have been

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[12] Pareyson, "La contemplación de la forma," *Conversaciones de estética*, p. 86.

the same without these circumstances: the combination of a strict Jesuit and disciplined classical education and a liberal-progressive modernist formation; a phenomenological understanding of the profession and life at large that allowed him to make the most of his circumstance; attachment to an aesthetic theory of form and the reality of its materiality that cannot but attach architecture to its construction; and, most of all, an ability to redefine contexts.

His built work of the first twenty years represents his search for an appropriate contemporary architecture for Spain; it is an investigation into what constitutes the "Spanishness" of contemporary architecture since the "modern" had become the norm in Spanish architectural design. Spain and the circumstance provided Moneo with the theme, the idea, and the territory in which to act. He approached the architectural project with what has been called the "Madrileño sensibility," that is, a sensibility which, as Hernández-León wrote, "connects the most valid aspects of the city's architectural tradition to make an architecture committed to a tangible space and history."[13] This was confining for him as it catered more to the profession and the built product–in which Moneo was expected to excel–than it did to the discipline and theory to which he was equally attracted. Ortega y Gasset led Moneo to escape the confinement of the local mentality by connecting practice with intellect through his concept of the reabsorption of the circumstance: he could become both architect and educator with the object of furthering the cultural development of Spain. That was his circumstance, and he used it "just as it was," with its limitations, peculiarities and specificity to act on and reinvent it - and in imposing his will each time to reinvent himself. Thus, although Moneo attaches his work to the reality of its materiality, to architecture as construction, it is in the realm of culture that we have to seek its structure and value.

Writing and teaching are Moneo's additional tools for practice and cultural venues. To be able to talk about architecture in purely intellectual terms will not suffice: he has to experience firsthand the possibilities of materials, structure, form and construction before he can theorize about the role of architecture as culture. Building

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[13] José Miguel Hernández-León, "The Impossibility of the School of Madrid," *UIA International Architect*,

exposes him to the issues that matter in the profession; teaching keeps him abreast of the problems, concerns, and ideas discussed in academia; writing synthesizes both and allows him to attach his buildings to the discipline.

As his buildings carry the load of a particular building tradition, so his writings reflect the defensive or critical position of the current discourse of the insider. As the plan registers the building's circumstance, structuring the canvas for the act of building to take place, so his writings are set against a discursive background that organizes the direction of his thinking. As he directs movement in his buildings so that they slowly unfold before the visitor, so in his writings his opinions unfold indirectly to inform the reader what architecture is. Although writings and buildings stand alone in their specificity and singularity, it is in their coexistence that they become instrumental in defining Moneo's methodology. Without an understanding of how his thinking evolves through his writings (and teaching), any study of his built work will be incomplete or incomprehensible. His writings demonstrate that Moneo has always been attentive to issues discussed in the discipline; his buildings, attentive to their circumstance, absorb his critical positions in a programmatic manner. His writings juxtaposed to his buildings convert the buildings into cultural products.

Moneo's architecture is built on the premise that the contemporary architect's heritage is modern architecture. With his eye constantly on history and construction, Moneo's perception of modern architecture has evolved along with his work. In the 1960s modern architecture served as the immediate paradigm. By the 1990s he had removed the label of paradigmatic from previous generations to place it upon his own generation. In the 1960s he experimented with materials and techniques by interpreting the modern masters in the design of his building to fit a specific program and the context of northern Spain. His writing was also focused on the modern paradigm reviewed through its critique and history. In the 1970s he positioned himself opposite Rossi's typological investigations in theory and in practice to look for architecture's creative capacity to regain the lost coherence of the city, supported by Venturi's theories of complexity and contradiction. His teaching assignments broadened his interest in theory, which he viewed as invaluable to practice. In the early 1980s he came up with an answer

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2 (1983) p. 14.

to how to build in historic settings. He had achieved a synthetic reading of the modern within the classical tradition, which could stand as a coherent philosophy of design. In the late 1980s he turned his critical mechanism inwards to assimilate the international exposure into his work.

It is the general perception that Moneo modified his early work to fit it into the new cultural environments. His attachment to a strong methodology that allows him to solve the problem facing the specificity of its circumstance and to the principle of making architecture to last ties his work together while it provides him the flexibility to experiment with the invention of form.

In examining the Harvard and post-Harvard periods, the question to answer is how did Moneo adjust his revisionist, programmatic architecture of the Spanish years to meet the demands of new markets, international-competition juries, and specialized clients. When he expanded his practice to the international market, he abandoned his Ortegan Spanish regionalism just as he had shed Oíza's modernist dogmatism and iconographic attachments for an alternative modernism in the 1960s and the obsessive attachment of his peers to theory over practice in the 1970s. In maintaining a reflective practice divorced from stylistic attachments but connected to the idea of lasting architecture appropriate to its site and culture, he is able to convince his clients that he cares more about solving their problems than imposing a personal stamp on the building. Architecture that is constructed to last–his axiomatic principle–helps him avoid temporary trends and fads, critical regionalism and academic constructs, to present the reality of architecture that is based on the act of building sound, durable and viable buildings. During the first twenty years the construction of structure emerges as the dominant concern in Moneo's architecture. At a time when theoretical investigations were trying to find architecture's autonomy in ideas or definitions or methods borrowed from other disciplines, Moneo's attachment of his architecture to the expressive powers of material and structure brought a unity to his work that makes any argument about stylistic inconsistencies or diversity irrelevant.

With regard to the project, following Pareyson, Moneo conceived the idea, developed the design, and delivered the building through a process that viewed all

three–idea, design, building–as a single entity. The ideological or moral attention paid to structure has hardly a trace of the overblown passion for technique, that illusion of the engineer as the historical forerunner of modern architecture. Moneo took a firm stand against introducing techniques which originate in pure scientific research into architecture on the assumption that science can solve any problem at all, as if by a miracle. Moneo's technique springs from the problem itself, as a method of assimilating its data and elaborating them over time into an ever more rapid and decisive dialectical relationship. To achieve this, he uses a technique that appears to be inclusive and circular–methodical and yet not systematic–in that it allows one to embrace the conception of form through structure and constructive realization. It begins by discarding all presuppositions in answering particular needs and questions, and then goes on to reabsorb all the details and occurrences of experience into an exploration of the design and project. Thus, the project is born and grows together with the building and is more of a verification than a proposal.

Moneo's insistence on capturing the project's circumstance rather than developing a personal expression is what is experimental in his work: he seeks to create a cultural product rather than to make a personal statement. It is the experiment behind the building rather than the building as a final product that is always of importance to him and that bears the burden of evaluation. It is in the experimental character of his enterprise that his buildings are allowed to fail, while Moneo reemerges intact.

The international expansion of the studio has almost overwhelmed his practice for the past eleven years, but it may prove to be the most fertile and challenging time of his career. His spring-term commitment to Harvard still ties him to academia but with less intensity. He continues his writing, which is always directed towards his favorite subjects–the building and the architect.

This monograph on Rafael Moneo is part of a larger project whose beginnings dates back to 1990. At that time I had decided to apprentice myself to three architects–Charles Correa (1931-) in Bombay, Rafael Moneo (1937-) in Madrid, and Henry Cobb (1925-) in New York. Each operated his practice using a specific routine

based on experience gained from 25 to 35 years of practicing architecture and each had achieved international recognition. My short-term goal was to have a cross-cultural experience and to view three different models of established contemporary architectural practice from within. My long-term goal was to write on the status of the modernist architectural project as a commodity for export from both the periphery and the center at the end of the twentieth century.

Educated during the period of enthusiasm for post-modernism in the 1980s, I contested its substance in the 1990s only to realize from this experience that the modern architecture of the 1920s and 1930s was still at the source of contemporary architecture. All three architects belong to the generation of the 1950s and 1960s who carried the message of the modern masters and interpreted their beliefs and commitment to modern architecture through the formulation of modern architecture's critique, introducing the richness of culture, science, theory and history into their work. They interpreted the modernist project in a critical, reflective manner that sought to enrich the substance of modernism when the link with that origin was highly contested. As the distance grows between ourselves and its beginnings, perceptions, theories and histories of modern architecture proliferate. These many interpretations have dissipated its original coherence. Now in the apogée of their careers these architects continue to challenge the project of modernity through their practice. While they face the new millennium skeptical of their antiquated methods and techniques and anxious about competing with the new trends and practices as they emerge and are aggressively marketed, they thrive in the present building scene and enjoy their status as public figures.

I had selected these three architects because their professional work focuses primarily on the design and delivery of the building rather than on theory while they are interested in theory. They treasure their role of architect in society and have the highest standards of professionals and producers, but all three have also extended their activities to teaching and writing.

While expanding and diversifying our territories of action, it is imperative that we preserve, fortify and celebrate architecture's core–the art of making the building–as its ever-present point of reference. With such strong paradigms the young architect can skillfully position himself in the world's market as entrepreneur and academic or builder

and consultant or marketer and designer. Our generation looks at architecture in terms of the broader spectrum of action, as the basis for penetrating new markets and new areas of design. The goal is to open up the professional scope of the architect to satisfy a client and a public that has become more knowledgeable, more sophisticated, more demanding and more sensitive to the spaces they inhabit than they once were.

Practicing architecture in different countries entails learning different regulations and understanding different cultures, norms, attitudes, and expectations. Contemporary architecture has assumed a different direction in every country depending on the way the modernist project was imported, that is, what kind of modernism or which of the masters the architects of that country had come to know and revere. My cross-cultural experience to the practice of architecture not only exposed me to this diversity of directions, but also allowed me to investigate architecture as a culture in itself, transcending national borders and cultural traditions with its own networks of promotion, mechanisms for diversification, and schools of thought.

My apprenticeship in Bombay with Charles Correa, whose Indian architectural practice is intimately linked with post-independence projects (the British Council in Delhi and the Astro-Physics Center in Puna [1991] were the projects I worked on) showed me how far India's modernist experiment had gone since Le Corbusier had imported modernism to the subcontinent in the late 1940s. Correa still remains one of the most independent critics of his generation's obsession with the dogmatism of Corbusian late modernism in India. My time in Moneo's studio (where I worked on the extension of the Town Hall in Murcia [1992]) provided me with an inclusive perspective on postwar theory and history, since Spain had not come into touch with alternative versions of modernism and its critique until long after the Second World War. My experience at Pei, Cobb, Freed, and Partners (working on the Silver Crown Tower, Shanghai [1995-1996]), a strong corporate firm organized into independent studios/teams, brought me in touch with the optimization of architectural design in terms of the architectural project, the team, and client management, as well as with the preservation of the modernist Miesian aesthetics of the tall building.

The export of expertise and culture through architecture is not a recent phenomenon. However, recent advances in communications and technologies that made

notions of national economies and markets obsolete have had their impact on the structure of contemporary architectural practice. Architectural practices that consolidated their operations and expertise locally or nationally in the 1960s and 1970s, such as those I worked with, were given opportunities to perform internationally in the 1980s. Internationalization - or globalization as it has come to be called in the past two decades - had the opposite effect from what it had on architectural practice of the 1920s and 1930s. Contemporary architecture is being exported and imported, not for its universal attributes or ideological connotations, but for its marketability as a signature piece and a consumer commodity, for its know-how or for responding to the specific tastes and needs of a particular group. The organization of the discipline and the profession around its institutions, along with the rapid expansion of the media, has been instrumental in assisting those architectural practices that can compete and represent the architectural community on the international level.

I began to write this thesis at the end of 1996. When I left my apprenticeship with the three architects, I had planned to write a comparative study of their three architectural practices, showing the way each one had achieved recognition through the successful deployment of circumstance in the cultural reaffirmation of the modernist project. Having lived a cross-cultural experience, I was going to reenact the cultural implications in the way the architectural project was produced. Each culture received and reworked the modern architectural project with its limitations, its restrictions, but also its distinct qualities. What all three architects shared to a certain extent was the treatment of the project as something more than a professional transaction. Each project was conceptualized not only to accommodate the client's needs, but also as part of a larger discourse pertaining to the discipline. It was this transcendence that I regarded as the contribution of these men to the discipline. There was no point in trying to classify these practices as historiography usually tries to do. Studies such as those by Magali Sarfatti Larson (*Behind the Postmodern Façade,* 1993), Robert Gutman (*Architectural Practice: A Critical View,* 1988), Dana Cuff (*Architecture: The Story of Practice,* 1991), Judith Blau (*Architects and Firms: A Sociological Perspective on Architectural Practice,* 1984) and Andrew Saint (*The Image of the Architect,* 1983) who examine architectural practices from a sociological perspective in order to classify them into specific types are important

as informational tools, but they remain peripheral to the architect's main question, which is the making of the architectural project. Classifications and taxonomies of architectural practice based on generalized categories such as size (small or large), orientation (art- or service-oriented), the public's perception (routine or extraordinary), or statistics create predetermined models of architectural practice intended to inform both the practice and the discipline.

Another kind of study on practice, such as those of Pierre Bourdieu, conceive of the scholar as being or becoming a "native" of the practice under study in order to be able to gain "a practical understanding of the logic of pre-logical practices" before theorizing about it. Because of their bases in taxonomy and categories, these studies can only partially resolve the question of objectivity and perception. Even more questionable is their effort to frame practice in terms of some generalized theory or set of rules. My decision to place myself in the study as both participant and observer was not dictated by any interest in writing on theory. Instead, I wanted to record and assess the status of architectural practice in its effort to safeguard the experimental (but not necessarily the polemical) character of the modernist architectural project.

Although I had intended to write on all three architects' work concurrently, in reassessing the material I had collected it soon became obvious that I had to make a detour to acknowledge the distinct experimental character and rigor of Rafael Moneo's architectural practice: the extensive material gathered on Moneo's written and built production had overwhelmed the rest of my work and there was no time left. While I still intend to complete the original project, writing on Rafael Moneo's work and career has taken on a life of its own. It is the general consensus that Moneo is one of the most intellectually driven of contemporary architects. His ascendance to the upper echelon of the international architectural community could not have been achieved solely through his meticulous, almost obsessive, dedication to each of his buildings. His dedication to academia, his frequent publications, coupled with his curiosity for learning, commitment to building, and ambition have added to his attractions. It is a story that until now has never been told. The conclusion was inescapable that if I wanted the complete story of how Moneo developed his philosophy of design and became one of the world's leading architects, I would have to write it myself.

Rafael Moneo developed his practice on the premise that he did not need to reinvent the wheel in order to maintain a contemporary sensibility in responding to architectural problems. He feels strongly that he belongs to a certain tradition; he bases the contemporaneity of his practice on the innovative examination and sensible adaptation of the architectural vocabulary that in the modernist architectural project binds his architecture to its time and place. While in the age of cyberspace and virtual reality, he could be criticized as too modest or even complacent in his approach to design, nostalgic or pedagogic in his approach to the discipline, his enterprise still proves to be intellectually daring, ambitious, and above all beneficial to the discipline in reinforcing the value of a solid, intellectually oriented, and professionally grounded architectural practice.

Moneo's practice can well serve as the paradigm for future generations, not only because of his extraordinary designs and innovations, but for his discipline in safeguarding and perpetuating the essential mechanisms of making architecture that lasts. In order to achieve that, one has to feel a sense of belonging to the tradition of building. One has to start by acknowledging the history of architecture and the profession as part of oneself. Practical experience of the profession and theoretical knowledge of the discipline (history and theory) can assist the architect in developing critical awareness of the limits implied in the conditions of architectural production and thus enable him over time to come up with a coherent philosophy of design through his work.

I want to express my gratitude to all these people whom I met these past years and who helped me realize this project, for without them it would not have been possible. Many of them changed my life by making it richer and more meaningful. I would like to acknowledge all my colleagues and friends in Bombay and New York for their continuing support and patience. I am grateful to Charles Correa for allowing me to experience architectural practice in India from within and Henry Cobb for allowing me to work on his architectural team. Their professional and theoretical commitment to architecture is exemplary to the following generations.

The conversion of a comparative study to a monograph required additional information. I returned to Moneo's studio twice to gather material and bring myself up to

date on the practice and the new projects. I held extensive interviews with Moneo himself, who supported this work not only by granting me access to his archives, but also by taking the time to read and comment thoroughly on the document as it was being written. My colleagues in Moneo's office–Luis Rojo, Belén Hermida, Ignacio Quemada, Collette Creppell, Luis Moreno Mansilla, Emilio Tuñon, Alexandra Rush Dominguez, Francisco González Peiró and Cristina Carriedo–have also been of immense assistance. Many Spanish architects and architectural historians granted me interviews and I would like to thank them for their insights, time and generosity: the architectural historians Juan Antonio Cortés and Maria Teresa Muñoz; the architects Francisco Sáenz de Oíza, Alejandro de la Sota, Miguel Fisac, Oscar Tusquets, Alberto Viaplana and Enric Miralles received me in their offices and granted me interviews. Thanks are also due to the Aga Khan Program in Islamic Architecture at Harvard and MIT for supporting my research into the 19th-century influences of Mudéjar architecture in Seville, Barcelona, and Madrid.

It is difficult to incorporate my long association with the Department of Architecture at MIT in such a brief space. Professors and colleagues in the program on History, Theory, and Criticism have shaped my thoughts and altered the course of my career in unexpected ways for over a decade now. My thanks go to the architectural historians Rejean Legault, Mitchell Schwarz and Nasser Rabbat for transmitting the bug of history and theory in a rigorous manner; Maha Yahya and Aysen Savas for making Cambridge a hospitable place; Sibel Bozdoğan for introducing a new theoretical dimension to my initial project by addressing issues of colonialism and post-colonialism current in academia in the United States. Peter Rowe gave constructive comments at the initial stages of my proposal. Roy Landau and Hilde Heynen provided their critical insights on the directions of architectural theory. Julie Eisenberg, a partner of Eisenberg König Ass, and Bruno Pfister, of Kalmann MacKinnell in Boston, offered me another view of architectural practice. I would like to thank my editor, Margaret Ševčenko for her challenging editing and unfailing advice in the progress of the thesis. My thanks goes to the Onassis Foundation and the Schlossman Award for supporting my studies at MIT.

There are a few people that have remained close to this work throughout these

years. Hélène Lipstadt has shown unlimited enthusiasm and invaluable advice at times of doubt and self-questioning. Francesco Passanti has always been available, critical in his drive to transmit that sense of perfectionism that the field demands and instructive in issues of modern architecture with a deep, authentic interest in, and enthusiasm for my topic. Without their presence this thesis would not have been the same.

This project would not have been possible without the ever presence of my long-time adviser Professor Stanford Anderson who believed in and encouraged it since its inception and Rafael Moneo himself, who has been so generous with his time and comments for the past ten years and has given me the opportunity to see and reflect on how architecture is produced through the architect's eyes and mind. Professor Mirka Benes said once to me with envy: "I wish I could have had Palladio in front of me. I have still so many questions to ask." I am deeply honored and lucky to have been able to count on my subject's response to all my questions.

It is customary to wait until the end to acknowledge the ones we love most. There is no way to put into words my gratitude for my husband's patience, enthusiasm for architecture, and unconditional support over the years this project has taken. He has willingly agreed to look after our children for long stretches of time and has always made sure I have had a well-equipped place to work in the various places we have lived around the world. This thesis is therefore dedicated to Pericles and to my sons Menelaos and Platon whose love has made it all worthwhile.

I. The Formation of an Architect and a Career

Rafael Moneo was born in Tudela in the Spanish province of Navarra in May 1937. His father, an industrial engineer, had married Teresa Vallés, an administrator's daughter from Madrid in 1935. Moneo was sent to a Jesuit high school in Tudela (1947-54), where he showed an interest in philology, philosophy and the plastic arts, but his father pushed him toward architecture as a more practical profession, combining as it did creativity and contact with real life as opposed to the sheltered existence of an academic career.[1] In 1954 he enrolled in the University of Madrid to study mathematics and the arts, and in the evenings he attended one of the so-called *academias de dibujo* (academies of design), which prepared students for the entrance examinations to architecture school. He was admitted to the School of Architecture in Madrid two years later–impressive considering that the average time it took to gain admission was five or six years. In retrospect, Moneo never regretted having chosen the path of architecture instead of fine arts, because it allowed him "to create the work while keeping it at a certain distance and without assuming the responsibility of imposing his way of seeing things on others."[2]

While pursuing his studies, he became particularly attracted to the works of Unamuno, a Spanish poet who wrote about the idiosyncrasies of the national character, and of the German-trained Spanish philosopher José Ortega y Gasset (1883-1955), who was allowed to return to Madrid in the 1950s from exile imposed by the Franco regime. Ortega had been influenced by Brentano and Husserl's phenomenological thinking and had reached the conclusion that philosophical thought was essentially secondary to the fundamental reality of one's own life. In addition to this fundamental reality, however, man had also to live within the set of circumstances connected to the

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[1] From an interview with Moneo, Madrid, January 7, 2001.
[2] Ibid.

specific place and time in which he found himself; his mission was to remain afloat.[3] It was the transmutation of circumstance into doctrine and method so characteristic of all Ortega's writings that was instrumental in the development of Moneo's career. Following the Ortegan way of thinking, Moneo's continuous attachment to his circumstances was a source of liberation from doctrines and orthodoxies he might have fallen heir to; it was an act of freedom, and at the same time an act of necessity.

Through Ortega's influence, Moneo became convinced that he could live an authentic intellectual life by reinventing his own circumstance; his life would be immersed in the reality of his profession–his necessity–and yet liberated in the fiction of its interpretation–his freedom. "The reabsorption of his circumstances is man's concrete destiny," Ortega wrote; "life's meaning is for each to accept his own inexorable circumstances and in accepting them make them his own creation. Man is the creature who is condemned to translate necessity into liberty."[4] If he tried to be or become someone else, his life would become a masquerade. One's life, the immediate, the circumstantial, if sought out, could in its very limitations and its peculiarities become the drive for creation.

Ortega's theories on the role of the intellectual in Spain connected Moneo with Spain's modernity. Moneo shared with Ortega not only a Jesuit education, but also a passion for living an intellectual life that was connected to Spain's daily realities and could contribute to the elevation of Spanish culture. Ortega regarded his countrymen as essentially unintellectual, so "deeply entrenched in the immediacy, sensualism and materialism of daily life [that they do] not have the capacity to involve themselves in the cultural uplift of Spain."[5] The few Spanish intellectuals who did exist tended to remain aloof from public life. Under the influence of Ortega's ideas, Moneo decided he would assume the role of the missing intellectual for the architectural community of

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[3] E. Inman Fox, *José Ortega y Gasset: Meditaciones sobre la literatura y el arte: la manera española de ver las cosas* (Madrid, 1987), p. 23.
[4] Ibid., p. 56.
[5] Ramiro de Maetzu, "Cultura y alta cultura," *Nuevo Mundo* 30 (1908); the quotation is taken from José Ortega y Gasset, *Meditaciones sobre la literatura y el arte: la manera española de ver las cosas*

Madrid.

Ortega denied becoming what he called a German *Gelehrte* or a French *écrivain* indifferent to the worries of ordinary people; in a similar manner Moneo claimed to face the circumstances of the intellectual in Spain, adding to the role of the Spanish architect-builder the dimension of architect-intellectual. For him architecture was not merely a profession, it was a passion, and it became Moneo's mission to honor his profession by facing and guiding his circumstance. Thought and work, study and practice, discipline and profession were never to be separated and never to be based on idealized assumptions. The practical aspects of building would always be at the center of Moneo's architectural production; they would be the circumstance that would lead to deeper reflection and result in a coherent theory of architectural practice.

Moneo enjoyed teaching, writing, and designing in equal measure. Although design was his main vocation, connecting him to reality and his own circumstance, teaching and writing compensated for his unfulfilled attraction to the classical arts. Teaching brought new stimulus to his practice, and if one is to look for a principle by which to organize his work, it is not unreasonable to find it in the dates of his teaching assignments: Madrid in 1965-70, Barcelona in 1971-80, Madrid in 1980-85, and Cambridge in 1985-90, the year that marks the end of this study (though he continues the association with Harvard part-time until today). In 1990 he returned to Madrid and since then he has maintained an active international practice.

The Formative Years, 1958-65

In the 1950s and 1960s architecture in Madrid was in a state of confusion. Modernism had touched the profession in the late 1920s and 1930s, but had then been forbidden by Franco after he came to power in 1939. Franco, like his contemporaries Hitler and Mussolini, favored an eclectic historicism, which meant that the schools were obliged to follow a traditional Beaux Arts curriculum. From 1939 to 1949 Madrid was

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(Madrid: Clásicos Castalia, 1987), p. 17.

dominated by the example of the Escorial and Barcelona by a Brunelleschian nostalgia. Faced with Franco's invocation of a neo-imperial style, Spain's best architects had gone into exile or disappeared.

By the early 1950s, when Spain's diplomatic isolation ended, thanks to the politics of the cold war, Franco became less doctrinaire about individual expression, and modernism was allowed to reappear. With the country on the brink of economic ruin and political disaster, Franco introduced a program of stabilization between 1949 and 1955. He promoted tourism to open Spain up to the Western world and expand the market for its growing industries. In 1955 Spain was admitted to the United Nations and received American aid. This complex and contradictory pseudo-fascist regime–advanced in certain fields and backward in others–reflected the society in which its architects were asked to perform. The 1950s was still a time for pioneers, when the only thing that mattered for the limited Spanish avant-garde was being "modern."[6]

The building for the Delegación de Sindicatos (1949; fig. 1) by Francisco de Asis Cabrero (b. 1912) and Rafael de Aburto, low-income housing designed by a group of young modernist professionals to shelter the waves of rural migrants who poured into the city in the 1950s, and the competition for a government building in Tarragona in 1957 won by the Madrid architect Alejandro de la Sota Martínez (b.1913) with an idealistic, purist proposal linked to the Bauhaus and Terragni, were the first indications that official architecture was finally going modern, a trend confirmed when José Antonio Corrales (b. 1921) and Ramón Vázquez Molezún (1922-94) won the competition for the Spanish Pavilion for the Brussels World's Fair in 1958. In 1955 the first conferences on modern architecture brought Zevi, Aalto, Pevsner, Roth, and others to Spain.

In the early 1960s the architecture in favor was still traditional and local and used indigenous materials, but the postwar modernist trends of the time–initially the

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[6] Ricardo Boffill. "The Present Situation of Architecture in Spain," *Zodiac* 15 (March 1966): 95.

neo-empiricist approach, and later the neo-liberty and brutalist movements[7]–were allowed in, as were some Italian revisions via Rogers's *Casabella*, historical revisions via Kahn, Team X and the Smithsons as the leading figures in the postwar efforts to salvage modern architecture and the late masters. Publications filtered into Spain through Spanish translations published in Latin America.

Moneo studied at the School of Architecture in Madrid from 1956 to 1961. During those five years he absorbed both the classical and the modern traditions, which have remained fused in his work up to the present day. Moneo learned the classical tradition through the study of 19th-century treatises taught at the school by the architectural historians Victor d'Ors, Luis Moya, and Leopoldo Torres Balbás, who encouraged his interests in history, criticism, and the timeless values of architecture.

It was Francisco Javier Sáenz de Oíza (b. 1918 in Caseda, Navarra)–one of Spain's most distinguished modernists and a teacher at the school since 1949–who first introduced Moneo to modernism. Oíza had graduated from the school of architecture in Madrid in the 1940s and belonged to the generation of the 1950s that had completely divorced itself from its predecessors. They rejected the academic architecture favored by Franco that supported the rampant nationalism of the period. The generation of the 1950s had been introduced to modernism through contact with the modern masters and through the few publications that circulated in Spain about them. Oíza, a very gifted architect and educator described by Moneo in 1988 as the modern Vitruvius,[8] was the first of this new generation of Spanish architects to visit the United States and study firsthand the glass buildings of Mies and his followers. He faithfully followed the masters and their beliefs about function, technology and society, abstract figuratism and elemental plasticism. By the late 1950s he was already known for his enlightened teaching and modernist work.

Oíza's generation, influenced more by the Italian architectural critic Bruno

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[7] Ignaci de Solá-Morales, *Contemporary Spanish Architecture: An Eclectic Panorama* (New York: Rizzoli, 1986), p. 21.

Zevi's propositions for a modern architecture than by the Swiss architectural historian Sigfried Giedion's understanding of it, denied any possibility of continuing what the previous generation was doing and tried to make up for lost time by filling in the blank chapter of modernism in Spain with almost fanatical fervor. Moneo's main criticism of the program of Oíza's generation was that it adhered too strictly to the early principles of modern architecture just at a time when those principles were being called into question and were being revised elsewhere in the West.[9] In the early 1960s Oíza endorsed "organic expressionism," a notion Zevi introduced in an essay, "Towards an Organic Architecture" (1945), which presented Wright's idea that architecture was intimately connected with nature and that individual expression was the true solution to the crisis in modern architecture.

In the mid-1960s Juan Daniel Fullaondo, a Madrid architect of Moneo's generation who worked with Oíza, launched the *Nueva Forma*[10] magazine to promote the work of a young group of architects of the 1960s, who were followers of Oíza, Corrales and Molezún. Fullaondo set about establishing a "school of Madrid" that would unify the work of Madrid architects and rival the already established "school of Barcelona" (a name given by Oriol Bohigas, a leading figure of the architectural community in Barcelona.) The group around the *Nueva Forma* magazine thought that the answer to modernity was to be found in Oíza's design for the high-rise apartment building called the Torres Blancas (1959-68; fig. 2), but their ideas about how to provide an alternative to the speculative architecture that was built in the 1950s never really managed to gain a foothold.

Antón Capitel, a student of Moneo and a professor at the school in Madrid who

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[8] Rafael Moneo, "Perfil de Oíza joven," *El Croquis* 32-33 (February-April 1988): 176.

[9] Rafael Moneo, "Madrid '78: 28 arquitectos no numerarios," *Architectura-bis* 23-24 (July-Sept. 1978): 23.

[10] The *Nueva Forma* included Sáenz de Oíza, Vázquez de Castro, Corrales, Molezún, Fernández Alba, and Juan Daniel Fullaondo; the last was also editor of the journal *Nueva Forma.* See Juan Miguel Hernández León, "The Impossibility of the School of Madrid," *UIA International Architect* 2 (1983):

has written extensively on contemporary Madrid architecture, says that Moneo was linked to the Nueva Forma group, though he did not support their dogmatic approach to architecture.[11] Their unquestioning faith in Zevi's claims for "organic expressionism" as the new alternative to the impasse of modern architecture went against Moneo's Ortegan principles of necessity and freedom. He associated with them because they were the most progressive group of architects in the city and provided an audience for his opinions. Through them he also kept himself informed about what was going on in the field and gained visibility, but he also kept his role in the group marginal to avoid compromising his independence.

Moneo first met Oíza in 1956 at his entrance examinations–examinations that Oíza had helped reform. They were called *los cursillos* and were a much modified version of the tedious, highly academic entrance examinations to which students had been subjected in the Franco era. They included mathematics, descriptive and analytic geometry, calculus, painting, drawing and technical design. The architectural curriculum had been modernized as well, and Oíza was also behind that reform.

In 1958, when Moneo was still a student, Oíza had called him on the recommendation of a common friend José Erbina, a fellow student in architecture, to do research for the Torres Blancas project. Moneo's admiration for Oíza as architect and teacher was based in part on their common enthusiasm for books and in part on the conviction they shared that architectural expression was not in conflict with the practice of good construction–on the contrary "good construction guarantees beauty."[12] Oíza had spent two years on a design for remodeling the basement of an office building for use as exhibition space, a project given to him by an enlightened developer named Huarte. He designed everything down to the staircase, the ceilings, and the lighting, taking advantage of his technological expertise to perfect his

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[11] Antón Capitel, "Apuntes sobre la obra de Rafael Moneo," *Arquitectura* 236 (May-June 1982): 9.

aesthetic, a meticulousness that impressed Moneo very much.

It was in the design of the Torres Blancas apartments (fig. 2), however, that Moneo most clearly recognized Oíza's synthetic capacities. In the beginning Oíza had been inspired by the work of Louis Kahn, but he soon abandoned him for the Corbusian concept of *unités d'habitations*–the tower in the landscape, a vertical garden, but adopting a more organic, Wrightian character in the way he linked the form of the tower with its structure (fig. 3). He used a hexagonal plan that was an adaptation of Wright's St. Mark's-in-the-Bowerie Towers project in New York (1927-31) and the Price Tower in Bartlesville, Oklahoma (1952-56; fig. 3), and analyzed to exhaustion the Corbusian and Wrightian models in his attempts to reach a synthesis that would retain the values of each (figs. 4–6). The resulting modifications led to the sculptural design of his final tower, "the tower as tree." According to Capitel, "during its construction the Paradise of Modernity seemed so close. . . . The moment the Torres Blancas was finished in 1968 the expressionist and organic dream no longer epitomized Modernity ... the victory of Torres Blancas–of the School of Madrid–was a pyrrhic one: it had expelled tradition only to replace it with a formal vocabulary and an obsession with 'modern language' that was already questioned elsewhere."[13]

Moneo left Oíza's studio in 1961.[14] From 1961 to 1965 he traveled extensively in Europe and entered nine competitions, coming away with three first prizes (see Appendix A). In 1962 he collaborated briefly with the Madrid architect Fernando Higueras on a design they entered in a national competition for a restoration center for the University in Madrid (fig. 7). Juan Daniel Fullaondo has suggested that the entry

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[12] Rafael Moneo, "Perfil de Oíza joven," *El Croquis* 32-33 (February-April 1988): 176.

[13] Antón Capitel, "La Aventura Moderna de la Arquitectura Madrileña," *Arquitectura* 237 (July-August 1982): 17.

[14] Moneo never really cut his ties with his first mentor. As both share a common origin – Navarra – and their professional establishment in Madrid, they have reunited on a couple of occasions to participate in competitions: the autonomous university in Bilbao (1969) and the Olympic Ring in Montjuic, Barcelona (1984).

reflects Higueras's ideas more than it does Moneo's, who had favored a design involving an aggregation of domes, but in any case it won first prize.[15] It also identified Moneo with a group establishing a movement they called Tardo-orgánica (late organic), inspired by Jörn Utzon's opera house in Sydney and by the work of Paul Rudolph and Eliel Saarinen. Its members believed that modern architecture should move in the direction that Wright and Le Corbusier had anticipated in their most recent projects and that Zevi promoted in his writings. The project (1965-1986) was finally built by Fernando Higueras and Antonio Miró. It remained unfinished until the 1980s, testimony to the impasse in the group that eventually marked the careers of its members (fig. 8). But Moneo had already distanced himself from this group as well, as it proved to be limited in its efforts to find an alternative to contemporary architecture that would endure. He left Spain to work and travel in Scandinavia, using the scholarship he had won as prize for the restoration-center competition.

Moneo had first seen Utzon's work, including the winning entry for the opera house in Sydney, in the pages of *Architecture d'Aujourd'hui* and *Zodiac* 5, and had written to Utzon asking for a place at his studio at Hellebaeck, Denmark. The response was positive, and Moneo spent almost a year working for Utzon on the structure of the shells for the Sydney opera. For this work he was sent to London to meet with the structural engineers of the consulting engineering firm of Ove Arup, to look for a solution to Utzon's problem: Utzon, under the influence of Felix Candela's architecture, had initially designed the shells as independent forms of reinforced concrete, but they would not stand up unbuttressed as designed, so he had to find another solution. Utzon and his engineers finally came up with the idea of pairing the shells so that they would support each other. Utzon's expressionist bent was finally conditioned by a degree of structural veracity. This experience made a lasting impression on Moneo, laying the foundation for his theory of form conditioned by structure.

When Moneo decided his apprenticeship with Utzon had ended, he went to

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[15] Juan Daniel Fullaondo, "Notas de Sociedad", *Nueva Forma* 108 (January 1975): 7.

Sweden to look at Asplund's work. Utzon also put him in contact with Alvar Aalto, Utzon's mentor, in Finland and gave him a book he had just published of drawings of the Sydney opera to present to his old master. Since the 1950s Aalto had been revered in Madrid for offering an alternative to orthodox modernism. Moneo became acquainted with the materiality of his architecture and its spatial effects by visiting the town hall and the university he built in Jyväskylä and his Imatra church (1957-59). In the two days he spent in Aalto's studio, Moneo learned firsthand the importance of maintaining a dynamic relationship between drawing and construction.

In 1962 Moneo returned to Madrid and set to work on another design competition–this time for a cultural center in Obradoiro Square in Santiago de Compostela (figs. 9-10); he won, and shared a prize with another Spanish architect, Dionisio Hernández Gil. In his design, Moneo introduced a small hexagonal module that determined the scale of the building vis-à-vis the public square. His use of the hexagon clearly connects the project with the Torres Blancas apartments and its references to Wright. Its context, fragmentation, and scale connect the project to Italian architecture of the 1950s. Moneo made special mention of Carlo Scarpa's architecture. The project also demonstrates his affinity with Aalto's architecture in the mystic, dense, almost archaic atmosphere it generates in its hexagonal protrusions.

The influences of Wright, Aalto, Asplund, Oíza, and Utzon taken together led Moneo to his alternative modernism. "Wright and Aalto were creators interested in inventing a particular language," Moneo wrote; they used their accumulated experience from earlier work to feed the creative process; they never started from scratch.[16] "Asplund was attracted by history; for Oíza and Utzon each project was a new illumination that allowed them to return to their origins."[17] Looking at the modern masters Le Corbusier and Mies van der Rohe as well as those mentioned above through the expressive poetics of Oíza and the geometric precision of Utzon,

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[16] Rafael Moneo, "A vueltas con la metodología," *Arquitectura* 82 (October 1965): 12.
[17] From an interview with Rafael Moneo, 9 July 1999.

Moneo developed an approach that gave him a broad conceptual repertory for use in reflecting on the main problems of architecture as a discipline and dealing with them in his practice. His subsequent two-year fellowship at the Spanish Academy of Rome allowed him to distance himself from his direct models–Oíza and Utzon. In Rome he concentrated on the history and theories of Western architecture and the condition of contemporary architecture and exposed himself to the modern paradigm through his travels, which gave him the critical positioning he needed to reflect on his experiences.

Before leaving for Rome he married Belén Feduchi, daughter of Luis Martínez Feduchi, an established architect in Madrid. Rome was an extended honeymoon for them. But Rome also became Moneo's departure point from which to commence his future professional activity. He spent the two years in study, reflection, travel, and making acquaintances. The first year he remained in the city, renewing his interest in the classical tradition and becoming acquainted with modern Italian architecture, which in the 1960s had a strong theoretical and cultural base. He studied the work of such Italian moderns as Albini, Gardella, Quaroni, Ridolfi, Samoná (whose houses, one on the Zattere, the other built for the Olivetti family, he visited and admired), Banfi-Belgiojoso-Peressutti-Rogers, Scarpa and Moretti. He made friends with his Italian contemporaries, such as Aymonino and Gregotti. On Monday evenings he attended Zevi's sessions on modern architecture at the Palazzo Taverna where he also met the architectural historian Manfredo Tafuri–politically engaged but not yet well known – and the architect Paolo Portoghesi. He also attended lectures Rudolf Wittkower gave on Italian Renaissance and Baroque architecture at San Giorgio and on Palladio in Vicenza. While still in Rome Moneo entered the competitions for the opera house in Madrid (1964; fig. 11) and the Spanish Pavilion for the New York World's Fair (1964; fig. 12) and he started drawings for the factory Diestre in Zaragoza (fig. 14).

The second year he traveled. He went to Turkey and Greece where he spent a month in Delphi studying Greek antiquities. Oscar Tusquets, an architect from Barcelona, joined him for the trip around Greece and remembers Moneo walking

around the ruins with book and tape measure, noting plans, reconstructing ruins, verifying dimensions, and measuring and drawing just as a Renaissance architect would have done.[18] Then he went to Austria, France, Holland, and England to look at modern buildings. These field explorations provided the opportunity to collect a store of material from which he would draw in his future practice. These two years were seminal insofar as they exposed him to mature architectural cultures and laid the foundations for a career that made theory a tool of practice and practice the generator of theory. It was from Rome that he sent his first seven articles back to Madrid for publication.

Madrid, 1965-70

In the late 1960s the opening up of Spanish architecture to so many different trends kept the profession from following a single direction. The internationalization that led to both the formal and theoretical expansion of the architectural project lent a peculiar hybrid character to Spanish architecture. Western trends that aspired to futuristic technological utopias (Archigram) or revisions of the masters (Team X and the Smithsons) were incorporated into Spain's strong realistic tradition of construction and location devoid of utopian undertones. The best Spanish architecture of the late 1960s is "reflective, defensive, curious and committed to internal elucidation and personal production."[19] Although in the previous twenty years Spanish architecture had recouped most of the time it had lost, individual practices were established on the borders of the status quo, neither confrontational nor completely involved.

In 1965 Moneo accepted a position as associate professor in the Department of the Analysis of Forms (Cátedra de Analisis de Formas) at the School of Architecture in Madrid, from which he had graduated four years earlier. The department in which he taught was headed by Professor López-Durand, a member of the old guard who taught

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[18] From an interview with Oscar Tusquets, Barcelona, November 1992.

[19] Ignaci de Solá-Morales, *Contemporary Spanish Architecture: An Eclectic Panorama* (New York: Rizzoli, 1986), p. 22.

design. Its curriculum was still based on the academic treatises of the previous century, at least until the student upheavals of 1968 when the students demanded change (see Appendix B). Years later Moneo confessed that these were hard years; the classrooms were empty, the students were only interested in the most advanced technology and in finding a method that would produce architecture automatically. He lectured to his students about Venturi and Rossi but not Archigram.[20]

In the same year (1965) he opened his studio at Oria 17 in El Viso (in the house where he also lived; fig. 13), beginning a professional practice in Madrid that he has maintained ever since. In Madrid, Moneo's colleagues were essentially builders, which bred in him a respect for rigor in construction and skill in the use of materials and techniques that became the hallmark of his work. Although young and eager to establish a practice, he also continued to write on topics that pertained to personal and professional aspirations that would bear directly on his practice, as well as to teach. He soon gained a reputation as a young, cultivated, and esteemed professor; his built work, however, although published, remained little known outside his immediate circle.

In the 1960s Carlos de Miguel, the editor of *Arquitectura*, the official journal of the Colegio de Arquitectos of Madrid (the official syndicate of architects), organized a small group of young architects which met once a year to discuss projects by both foreign and Spanish architects. These conferences, called *pequeños congresos* (little congresses), were attended by the Spanish modernists Oriol Bohigas, Federico Correa, and Oscar Tusquets from Barcelona; Oíza, Corrales, Molezún, and Moneo from Madrid; Luis Peña Canchegui from San Sebastián and several architects from the Basque region; invited guests included Siza, Rossi, Aymonino, Giancarlo di Carlo and Gregotti. In 1968 the group received an invitation to participate in a conference on design in Aspen, Colorado, organized by Eliot Noyes, an American architect who at the time was working for IBM. Moneo, Bohigas, Correa, Fernández Alba (another

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[20] Márquez & Levene, "Entrevista con Rafael Moneo," *El Croquis* 20 (April 1985): 6-7.

Madrid architect), and Nuño Portas, a Portuguese colleague, went to the conference–their first trip to the United States.

In Aspen about 20 participants–among them Reyner Bahnam, Hans Hollein, and Peter Eisenman, members of the New York 5 group who were experimenting with the application of linguistic principles to architecture, heard from the Spanish delegation a brief presentation on the current state of the profession in Spain. After the conference ended, the Spanish group went to Chicago to visit some of Wright's and Sullivan's buildings, then to San Francisco, and back to New York. The next year they reciprocated by inviting Eisenman to one of their *pequeños congresos*. In that same conference, Moneo met Aldo Rossi. Both Eisenman's and Rossi's studies coincided in that they favored an understanding of architecture that was dependent on theoretical reflection. Moneo followed their paths critically, elaborating on his earlier hypothesis that gave primacy to practice over theory. These contacts were stimulating enough to allow Moneo intellectually to escape the difficult moments at the school of Madrid. Moneo maintained his friendship with Eisenman, who was later to introduce him to the American scene as a scholar and a teacher.

By the end of the 1960s Moneo had learned to strike a balance between the studio and academe. His projects in the late 1960s were mainly private commissions, ranging in character from purely modernist to traditional, classic, and historically fused designs demonstrating the architect's unwillingness to align himself with prevailing organicist and utopian revisions. Moneo justified formal plurality in attaching form to structure. His projects were all built in the north-central plateau of Spain and used a variety of types, materials, and construction techniques. One of them was the factory "Diestre" in Zaragoza, a zone that had been converted from agricultural to heavy industrial use (fig. 14). This project, built in 1965, was Moneo's first tour-de-force in modernism: in it he experimented with spatial effects, scale, proportions, new materials, and new technologies. Its wavy roofs, reminiscent of Aalto's buildings, reflected the programmatic distribution of the plan, creating an intelligible modern shell that could house both a production line and administrative offices under the same

roof. As an industrial building, its metal structure appeared naked and exposed, with no effort made to hide its real purpose. The administration building in brick is testimony to Moneo's affinity with the material whose constructive possibilities he explored in subsequent projects during the first twenty years of his practice.

Moneo also designed and built an extension for the bullfight stadium in Pamplona (1966-67, competition, 1st prize; figs. 15, 16), where again he experimented with construction techniques, the structural strength, and formal expression of reinforced concrete as it was being used by Italian modernism in the 1950s. Another important project of the period was his competition entry for the town hall in Amsterdam (1968, competition, 2nd phase, 2nd prize; fig. 17), which laid the foundations for his urban projects of the 1970s. In projects for a school at Tudela (1966-69), a house for a prominent family in Madrid (1967-69), and the Urumea apartment building in San Sebastián (1969-73) he elaborated on ideas that had informed his first projects, competition entries, and essays. They were his first attempts to combine his theoretical position with professional practice.

Barcelona, 1971-1980

In the 1970s, a period of economic crisis and political transition in Spain, architects tried to reestablish order in the various aspects of the architectural project: architecture and the city, the public domain, architecture and construction, and the composition of form. The origins of these four subjects and the way they were used resulted in the eclectic Spanish architecture of the 1970s.[21] Moneo took advantage of the fact that his practice was limited to expand his academic commitments and network from Spain to the United States.

In November 1970 Moneo was offered an appointment as professor in the Department of Elements of Composition (Catédra de Elementos de Composición) in

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[21] Ignaci de Solá-Morales, *Contemporary Spanish Architecture: An Eclectic Panorama* (New York: Rizzoli, 1986), p. 23.

Barcelona,[22] which he accepted and where he taught until 1980. In his years there his teaching became more systematic and informed than it had been, and he began to feel more confident intellectually. Barcelona provided an experimental environment ideal for testing Moneo's theory of design as he had formulated it in the *memoria:concepto,* a 65-page document he had included in his application for the professorship, together with an explanation of how he conceived his course, the methods he used, and a bibliography for the twenty lectures he would give in the course of a year (see Appendix C). His teaching material was published by the school annually, including the regular multiple-choice examinations he gave to the class every fifteen days or after the completion of a given topic.

His established routine was to spend three days a week in Barcelona, teaching and attending the meetings of a group of sympathetic colleagues that included the architect Federico Correa, a leading figure in the Barcelona school, Bohigas, a partner in the architectural firm of Bohigas Mackay Martorell, and the younger architects Lluis Domenéch, Luis Peña, Helio Piñón, the urbanist Manuel de Solá-Morales, the philosopher and art critic Tomas Llorens, and the industrial designer Enric Satué. At their meetings the group discussed the state of architecture through a critique of the immediate past they had inherited and through the history of architecture. They also explored the possibility of reintroducing a fresh theory of architecture in or through practice.

In 1974 the group began publication of a progressive journal–the first to adopt the format of a weekly newspaper–called *Arquitecturas-bis: Información gráfica de*

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[22] When Moneo applied for the chair, three new positions – one each in Madrid, Barcelona, and Seville – had opened up and were to be competed for publicly for the first time. The applicants had to submit a written statement, a course proposal and their portfolio of works, which they had to defend in a presentation open to the public. The applications were reviewed by a jury of three members, all professors at the schools. It was believed that Alejandro de la Sota would receive the position in Madrid and Federico Correa the one in Barcelona, but the Seville position was open. In the end, Fernández Alba placed first and he chose Madrid; Alberto Donaire – an architect thought to be supported by the Opus Dei – placed second, and chose Seville; Moneo placed third and was left with Barcelona. Gabriel Ruiz Cabrero, *Spagna: Architettura 1965-1988: Tendenze dell' architettura contemporanea*

actualidad. Editorially it assumed no particular ideological position; its goal was the broad dissemination of all architectural developments. Its name was indicative of the plurality of approaches its editors had agreed to: the word *bis* (twice) allowed for revisiting and interpreting both past and contemporary architecture. The participants sought to solve a wide range of problems by combining architectural history, theory, practice, and criticism.

The publication legitimized and formalized the work of the group and gave it a vehicle for participating in international debates on the future direction of contemporary architecture. It brought them into contact with architectural groups of their generation worldwide, such as those architects, architectural historians and critics associated with the journals *Oppositions* (published in New York by the Institute for Architecture and Urban Studies), *Lotus,* and *Contraspazio* (both Italian progressive architectural magazines), and sought to restore the connection between history, theory, and criticism in architecture. Moneo published most of his essays in the pages of *Arquitecturas-bis* as he shifted from passive observer to active participant in international debates. Some of his writings assumed the responsibility of informing the reader about current trends, books, buildings, and architects. But generally he formulated arguments in favor of contemporary architecture for a wide audience that also clearly favored it.

The rest of the time he spent in Madrid, but he kept his distance from his Madrid colleagues, whose terrain was purely professional and who had no interest in theory, though on occasion he collaborated with other architects on projects.[23] Fullaondo wrote in an ironic tone in an editorial for *Nueva Forma* in 1975 that in Barcelona Moneo "had crossed the cultural frontier into 'radical chic,'" stressing the intellectual distance between Moneo of the Barcelona years and the always pragmatic Madrid architects.[24]

(Milan: Electa, 1989), p. 65.

[23] His most consolidated partnership of the 1970s was with Ramón Bescós with whom he collaborated on the residences at the Paseo de la Habana, the Bankinter building, both in Madrid, and on the competition for the congress house of Huesca.

[24] Juan Daniel Fullaondo, "Notas de Sociedad," in *Nueva Forma* 108 (January 1975): 7.

Of the school at Barcelona, Moneo wrote, there is a "strong tendency to identify with the most up-to-date theoretical research that is inclined toward an abstract, uncontaminated architecture."[25] In contrast to Madrid, the strong modernist tradition in Barcelona effected a definite liaison between the school and the profession: in the 1930s Le Corbusier had designed a project for the Diagonal–the main boulevard of the city–and Sert had left built work behind dating from before the Spanish Civil War. In the 1950s, architects who called themselves Group R, among them Josep Maria Sostres, Josep Maria Martorell, Josep Pratmarsó, Gili, Antonio Moragas Gallissá, José Antonio Coderch (who left the group early on), and Oriol Bohigas, had renewed contacts with the modern architecture movement, especially Rogers and Zevi, Team X, and Louis Kahn. All the efforts to elevate the critical discussions on architecture were finally consolidated in the appointment of Oriol Bohigas as the Director of the School of Architecture in the late 1970s.

Moneo respected Coderch's architecture (although he never befriended him–Coderch was considered sympathetic to Franco's regime) which was influenced by Rogers's advocacy of the "pre-existing surroundings" in architecture through the pages of *Casabella*, and which combined contextualism, rationalism, and the Mediterranean vernacular.

In 1974, with two of his projects on hold because of the economic situation in Spain, Moneo returned to the United States, this time to stay in New York with some of his teaching assistants from Barcelona to see for himself the developments there. He renewed his acquaintance with Eisenman who, since their Aspen meeting, had founded the Institute for Architecture and Urban Studies (IAUS), whose purpose was to encourage discussion on the discipline through research and the organization of conferences, exhibitions, and lectures. *Oppositions* had been their official journal since 1973.

Two years later (1976-77), he was given a one-year sabbatical and returned to

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[25] Rafael Moneo, "La llamada 'Escuela de Barcelona,'" *Arquitectura* 121 (January 1969): 2.

New York once again, this time as visiting scholar at Eisenman's Institute. He also taught at the Cooper Union and he extended his stay for a third semester in the fall 1977 to teach a design course at Syracuse University–his first experience teaching in the United States–on Eisenman's recommendation. In New York he renewed acquaintance with Kenneth Frampton, whom he had earlier met in Spain, Anthony Vidler, and James Stirling, who were also at the time visitors at the institute; Frank Gehry, who at the time no one would have picked out as destined for later success; and the Dutch Rem Koolhaas, who had just graduated from Cornell and had been sent to the Institute by his mentor O. M. Ungers.

In the course of the year Moneo began to expand his theoretical investigations to include the new ideas issuing from the American side of the Atlantic, while firmly holding on to his point of reference in Europe. It was there also that he wrote the essay "On Theory," which he presented at a conference but never published, reformulating his positions following his most acclaimed essay "On Typology" (1974). He also presented a paper, "On Entering the Last Quarter of the Twentieth Century," as co-representative of the *Arquitecturas-bis* group with Oriol Bohigas at a conference on the status of modern architecture in the last quarter century organized in New York by *Oppositions.* In it he clearly expressed his affiliation with modern architecture.

His academic sojourns in the United States gave him the lead as an educator. In 1979 both Moneo and Oriol Bohigas were invited to give a lecture at the School of Architecture in Lausanne through the recommendation of Martin Domínguez, who was teaching at the school at the time.[26] Moneo was then invited to return as a visiting professor in summer 1980.

Throughout his years of teaching in Barcelona, Moneo maintained his practice in Madrid, which he operated out of Urola 8 (1970 - 1980; fig. 13), but the recession that had followed the transition from dictatorship to constitutional monarchy made commissions scarce. Out of the nine competitions he entered he won three 1st prizes, but none was converted to a commission (see appendix A). He also had several

projects on his drafting board that were never built; they included the restoration of the historic center of Aranjuez, a theoretical study based on the typological mode with which Aranjuez was built (1974-75) and an urban design plan for Lacua de Vitoria (1977; fig. 18), which used Rossian typological investigations and on which he worked in collaboration with Manuel de Solá-Morales, an urban planner and the director of the Department of Planning at the School of Barcelona.

Madrid became the testing ground for his designs, while Barcelona continued to provide a receptive audience for his intellectual and academic activities. The two cities cultivated a rivalry that extended to all levels of social interaction. Moneo's living in Barcelona classified him as the Madrileño ally of the Barcelona group. Unlike other Madrid architects he not only received recognition from his Barcelonian peers, but also was asked to build in Barcelona in the 1980s when the city was getting ready to host the Olympic Games. Commenting on those years, Moneo said: "Barcelona was a blessing for me in the long run. And not many Madrid architects can build in Barcelona."[27] But Barcelona mainly promoted his international academic reputation, while Madrid exhibited his skills as an architect.

Three projects exemplify his work in the Barcelona period: the extension of the Bankinter headquarters in Madrid (designed in 1973; constructed 1974-77); the town hall of Logroño (designed 1973-75, constructed 1976-81); and a competition entry, which won first prize, for an extension to the headquarters of the Banco de España (1979-80). All three projects dealt with the problems involved in building or expanding in a city. Bankinter and the town hall–his only projects built in the 1970s–are more abstract and free from the classical aspects of his earlier projects.

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[26] From my conversation with Alexandra Rush Domínguez, 3 February 2001.

[27] Interview in Cambridge, Mass., April 1998.

Madrid, 1980-85

If, in general terms, the 1980s has been described as the "golden decade" for Spanish architecture by international critics and historians, it would be equally valid to claim that it was Moneo's "golden decade" as well. As the economy recovered and democracy was established in the late 1970s, architects turned to the task of rescuing urban spaces, historic districts, and neglected monuments. In the 1980s the Olympic Games in Barcelona, the International Exposition in Seville, and Madrid's designation as the capital of Europe, all planned for 1992 combined to generate numerous public buildings and infrastructure projects. Spanish architecture was attracting attention in international architectural magazines as the architectural community was curious to see how it would respond to the task of representing the new democratic state. Gabriel Ruiz Cabrero describes the Spanish architecture of this period as a combination of the revivalist Spanish rationalism of the 1920s and a realism that ties it to its own place and time.[28] Although it always remained peripheral, it was still attentive to prevailing Western trends, including the postmodernism that characterized the early 1980s. The Spanish production of the 1980s is diverse in its visual expression. At its best, it maintains an abstract modern order while it absorbs the lessons of history, it articulates the ideas through construction and combines the generic typological aspect with the memory of the place.[29]

In 1980 Moneo was offered a tenured post at his alma mater in Madrid and returned home to teach. The circumstances at the school had changed in its effort to respond to the demands of the students, it remained bureaucratic and little interested in theory. Moneo moved his studio to the basement of his house at Miño 5 (fig. 13). He had completed his Barcelonian adventure and was ready to concentrate on the building of democratic Spain. He had thus far been disappointed with the production of the younger generations of architects in Madrid. Although they were promoting culture

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[28] Gabriel Ruiz Cabrero, *Spagna: Architettura 1965-88* (Milan: Electa, 1989), p. 109.
[29] William J. R. Curtis. "Una perspectiva histórica: España durante los ochenta," *A&V Monografías de Arquitectura y Vivienda* 24 (1990).

and theory as fundamental criteria in their practice, their architecture lacked distinction and was detached from the discipline's current concerns; it seemed to be trying to cope with the problems the modernists of the 1950s had already grappled with rather than those of their own time.[30]

In the early 80s Moneo focused his practice on large commissions, such as the Mérida Museum (1980-86), the Banco de España in Jaén (1980-88), the Previsión Española in Seville (1982-86), the Colegio de Arquitectos in Tarragona (1983-92) and the Atocha Railway Station in Madrid (1984-89). These projects defined by their own circumstances (architecture in historic settings, site, program) aimed to respond to both the ambivalent direction contemporary Spanish architecture was taking and the widespread phenomenon of historicist postmodernism abroad. Most of these projects were published in the international architectural press by attaching construction to the history of the site. In addition, Moneo had established his network abroad with both the New York and Venice groups, and this, combined with the success of the Mérida Museum, pushed him into the international limelight. His superiority to his Spanish colleagues was becoming increasingly evident.

After he returned to Madrid, Moneo maintained contact with former Barcelona colleagues by publishing articles in *Arquitecturas-bis* (until 1985, when the group dissolved and the journal ceased publication). In 1982 he edited a book of selected essays on typology by both architects and architectural historians called *Sobre el concepto de tipo* (On the concept of typology) based on his lectures on typology in Barcelona in the 1970s. In 1986 the School of Architecture in Madrid published his teaching material from the years 1980 to 1985, a summary of the topics he dealt with and the problems he set to the students following his lectures. The publication of teaching material not only allowed it to be presented in a systematic way, but also introduced his educational methods to a wider public.

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[30] Rafael Moneo, "Madrid '78: 28 arquitectos no numerarios," *Arquitecturas-bis* 23-24 (July-September 1978): 22.

In his writings throughout the 1980s Moneo continued to examine the work and careers of other architects, ranging from Sir John Soane in the 19th century to Kahn, Aalto, and Mies in the 20th, and I. M. Pei, Cobb, Eisenman, Venturi, and Gehry in his own generation; and to reflect on both the precedents they used and the new trends in architecture they represented. Through the articles he published in *Arquitecturas-bis,* he revisited the modern masters to rediscover the sources of modern architecture in history. From historical figures he sought to find his own place in the discipline. From his American contemporaries he sought a deeper understanding of the new directions produced by the recent trends there, such as cardboard architecture (mainly the work of the New York 5 in the late 1960s and 1970s), postmodernism, poststructuralism and deconstruction (1980s), and reevaluated architecture's relationship with the arts and other disciplines.

In the spring of 1982 Moneo returned to the United States once again, this time to teach a design course at Princeton. In the same year, he received an invitation to participate in a closed conference of architects on architects held at the University of Virginia in November 1982, where Eisenman's partner Jaquelin Taylor Robertson was then dean. It was organized by Peter Eisenman to celebrate the tenth anniversary of the founding of his Institute for Architecture and Urban Studies. The event was not just a celebration. Its proceedings were published a couple of years later under the title, *The Charlottesville Tapes.* The published proceedings aimed to re-create the atmosphere of a collective effort through its publicity. Each architect was asked to present a previously unpublished project for criticism by his peers. Moneo presented the Mérida Museum for the first time. Later in the same year it was published in the journal *Lotus*, and thereby became the first of Moneo's buildings to receive attention in the international architectural press while still in its design phase.

The conference proceedings were presented in a new journal that would henceforth be published annually, implying that there would be more conferences of architects on architects. The participants were drawn from the network of architects who had been associated with Eisenman's institute and the New York scene in the 1960s and 1970s. Most were in their fifties, aside from the already elderly Philip

Johnson who was attending yet another architectural event organized by a protégé. It was at this conference that Moneo first became acquainted with Henry Cobb, co-partner with I. M. Pei in their New York-based architectural firm I.M.Pei & Partners and at that time also chairman of the Department of Architecture of the Graduate School of Design (GSD) at Harvard. They were to renew the acquaintance in Venice in 1983.

In the summer of 1984 Moneo was asked if he would be interested in succeeding Cobb as chairman of the Department of Architecture, after a committee headed by then Dean Gerald McCue had come to his Madrid studio to see his work. He was offered the chairmanship for a five-year term starting in the fall of 1985. In the spring, before this appointment was to take effect he was to come and teach a course. By that time Moneo had expanded his professional practice nationally and consolidated his academic work internationally. To boost his practice before taking off for America, he participated in seven competitions between 1984 and 1986 (see Appendix A). His entry for the limited competition for the "Progetto-Bicocca" in Milan for Pirelli industries (fig. 19) stands out for its complete rejection of any typological interpretation of the city (as opposed to his 1977 entry for the Lacua, Vitoria project). Moneo conceived an almost non-existent city based on a road structure that left open the formalization of its architecture. He made a conscious decision not to define the image of the city or the meaning and representation of industrialization in the late 20th-century.

Cambridge, 1985-90

At the time he took up the post at Harvard, architectural education in the United States was under attack for concentrating too much on interdisciplinary theoretical investigations to the detriment of the proper art of building and construction. To respond to this criticism, the school had chosen two accomplished professionals, first Henry Cobb and then Rafael Moneo, to revive it. In his announcement of the appointment, Dean McCue said:

> This is a critical moment in the field, when norms are challenged and unproven hypotheses abound. I know of no one better suited to guide the intellectual environment for exploring architectural theory than Rafael Moneo. Through his work as a designer and his contributions to the literature of theory and criticism, Moneo has proven himself to be one of the leading intellectuals in the field, standing above polar positions in his enlightened discourse.[31]

Moneo put a curriculum together that would allow students to acquire competence in what he called the "lost skills" of the architect. He invited architects accomplished in various areas of expertise to show their work to the student body. He encouraged younger professionals by inviting them as visiting critics to the studios. He established evening sessions, which in the fall of 1986 were converted to a more formal architecture lecture series, to provide a forum in which students and faculty could have more direct access to the work of individuals currently at the forefront of architectural practice.[32]

Each month, the department invited an architect who was also prominent in the field of architectural criticism, theory, or history to visit for a week. In addition to showing their work in the lobby of the GSD's Gund Hall, they presented several evening lectures, ending in one on their own work, and participated in daytime seminars to provide students and faculty with an occasion for more direct, informal discussion.

A considerable number of these visitors came from Europe, reviving the practice of introducing a European understanding of the directions of contemporary teaching and practice to American education, as in the years of Gropius and later of Sert. European architecture was filtered through the promotional media and publicity of the school–exhibitions, public lectures, publications–to demystify the deconstructivist and postmodern trends in contemporary architecture that were then emerging in the United States.

In his capacity as chairman Moneo also promoted student work by exhibiting it

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[31] *GSD News*, Winter 1985, p. 12.
[32] *GSD News*, Summer 1986, p. 6.

in the Gund Hall lobby and producing an annual student catalogue. He introduced career-advising programs, where representatives from big firms were invited to give lectures to the students and initiated resume-writing workshops. He himself taught the basic course, "Introduction to Design and Visual Studies in Architecture," for first-year master's degree students and a lecture course, redesigned from the series of courses he had taught in Madrid. He structured it using the case-study system made famous by the Harvard Business School. Through case studies he could touch on the subjects he wanted in one or two lectures instead of spending a whole semester on a subject, as was more commonly done in the American system of education.

In the first year, instead of focusing on theory and its use in the practice of architecture, he analyzed selected buildings by earlier and modern architects (e.g., H. H. Richardson's Sever and Austin halls at Harvard; McKim Mead & White's Boston Public Library, and buildings by Louis Kahn and Le Corbusier). Moving from one building to the next Moneo aimed to show his students the contribution of these architects to the evolution of the discipline. In the following years his lectures were restructured to focus on the reading of buildings through individual careers. The diversity of the student body and their interests, as well as the international standing of the school required an approach that stressed individual careers over theoretical problems.

The architects he lectured on included the usual seven–Aldo Rossi, Robert Venturi, Alvaro Siza, James Stirling, Peter Eisenman, Rem Koolhaas, and Frank Gehry, whose careers he had followed closely since the 1970s. Moneo traced their thinking through a chronological reading of their major buildings and writings. For Moneo those architects had been instrumental in the consolidation of a discourse on architecture that combined theory with built work.

Moneo's association with Harvard and his exposure to architecture in the United States also influenced his own work as reflected both in his writings and in his designs. He embraced the new ideas and new concepts, such as minimalism and abstraction, promoted by the emerging American generation in both art and architecture, which he experimented with in his subsequent projects. America gave

him the opportunity to ground his ideas on a philosophical base.

American architects believed that architecture was becoming an ephemeral art, "especially in the United States where the society is so sensitive to changes and advancements in building technology [and] ... does not believe in the lasting condition of its own creations." Moneo fought against this attitude, even though he was aware that he could be mistaken.[33] His proximity to American architecture reinforced his belief in the importance of durability, permanence, and materiality in architecture, ideas that he had been dealing with since the very beginning of his career. While American architects understood the building as the physical representation of the drawing or of a process, Moneo argued for the building's own reality implied in its construction.

Moneo's five years in the United States opened up a new world to him, and he was ready to start all over again with fresh ideas. Spain was still his base, but the world had become his new territory, albeit a world that he defined solely in terms of Western culture: "I have to acknowledge," he admitted, "that I am a curious person, but it is a curiosity that does not extend to other cultures. I understand that this is limiting ... but I have to confess that I do not feel attracted by the exotic or the distant."[34]

Two events at the GSD had a particular impact on his work. In October 1988 an exhibition called "Emerging European Architects," the work of 13 architects from 8 European countries, was mounted in conjunction with a symposium on the same topic. At this event Moneo came in contact for the first time with Jean Nouvel's recent work (the Tokyo Opera House, 1987), which was later to influence the design of the competition entry for the Cultural Center of San Sebastián (1989).[35] In April 1989 a conference on "Thinking the Present: Recent American Architecture" with presentations by practitioners, journalists, and theoreticians, focused on theoretical and ideological issues that had arisen over the past twelve years in American architecture.

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[33] Rafael Moneo, "The Idea of Lasting. A Conversation with Rafael Moneo" *Perspecta* 24 (1988): 154.
[34] "Entretien" with Charles Poisay in *Architecture Movement Continuité* 8 (June 1985): 84.
[35] Interview with Louis Rojo, Cambridge, 15 April 1998.

In his introductory notes, Moneo praised Frank Gehry's work as an authentic paradigm that tied materials to construction and form. It was clear that Moneo had made the alliances needed to provide him with new material for the critical thinking behind his work.

While at Harvard, Moneo still managed to maintain his professional practice in Madrid. His duties at Harvard did affect how he managed his projects, but the few architects and students who worked in the small satellite office he maintained in Cambridge off Harvard Square assisted him to balance his schedule of teaching and practice without difficulty. The distance did not allow him to travel very often to Madrid, but his collaborators in the studio came often to Cambridge to work with him. He also had at least one local project: in 1989, a year before his contract as chairman ended, he was commissioned to design the Davis Museum at Wellesley College in a nearby Boston suburb.

Barcelona came to his rescue in granting him two important commissions: the Manzana Diagonal in collaboration with Manuel de Solá-Morales (1988-93) and the Auditorium (1987-93). In 1987 he was chosen to design the San Pablo Airport in Seville. But it was his commissions for the Fundación Miró in Palma de Mallorca (1987-92) and his winning entries for the Cultural Center at San Sebastián (competition, 1st prize, 1989-99) and the museum of modern art and architecture in Stockholm (competition, 1st prize, 1990-97), all taken up while he was at Harvard, that secured his international reputation and guaranteed commissions for years to come. They also clearly showed the new influences of his American years. When he returned to Spain, after his commitment to Harvard had ended, he opened his practice to international commissions.

Madrid: 1990 to the Present

When his five years were up, Moneo returned to Madrid with new energy, confidence, and commitment. Until then all his buildings–and all of those we are concerned with

here – had been built in Spain, but the attention the Mérida Museum and the three Cambridge-period projects were given in the press, combined with his five-year chairmanship at Harvard, increased his prestige abroad. By the time he left the United States, Moneo could claim that he had established an international practice.

In the early 1990s he participated in the "Any-conferences" ("Anyone" in Los Angeles, May 1991; "Anywhere" in Japan, June 1992; "Anyway" in Barcelona, June 1993, meetings designed for prominent international architects to meet and discuss current issues concerning the discipline and projects; the coordinator was Cynthia Davidson, Peter Eisenman's wife). His work was exhibited in Lugano in September 1992, in Vienna in April-May, 1993, in Basel in June-September 1993 and in Stockholm in October 1993-January 1994. He received several prestigious awards, including an honorary doctorate from the University of Louvain in 1992 and the Pritzker Prize, the most prestigious award in architecture, in 1996.

Expanding his practice abroad required a revamping of the way the studio was set up and the way the projects were run. The studio was moved entirely from his house basement to a nearby house by 1995, which was remodeled to accommodate the 24 architects he now employes, together with their computers and equipment and the architect-librarian who organizes the archives and prepares the material for publications and exhibitions, activities that are now a vital part of the apparatus needed to meet the demands of an international practice. The transition from the basement to Cinca 5 (fig. 13) took five years.

By the time the studio had completed the move, Moneo's close collaborators of the previous ten years had left to start their own practices. A very few still have part-time commitments with the studio to finish off projects. Moneo never made an effort to keep the most talented of them with him, although in the 1970s he had recognized that the unity and coherence of Gaudí and Frank Lloyd Wright's work could be attributed to the loyalty of their collaborators.[36] But Moneo not only likes to

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[36] Rafael Moneo, "Jujol and the Tragedy of the Gaudinists," paper presented at the Drawing Center, New York, 11 April 1977; "Wright o el disfraz de la ortodoxía," three lectures given at the Escuela

retain complete control over his work, he also regards architecture as a work of its author and thinks that every architect should try to work independently. A new generation of architects, educated with computer rather than the pencil that remains Moneo's favorite means of expression, now work in his studio.

While Moneo still continues to build in Spain, his projects are now spread over two continents. In the early 1990s he participated in 14 competitions most of them in Europe, and received four commissions out of the total of 13 new projects he had in the office. Most of his international projects are museums. In the late 1990s he secured two commissions from six competitions for a total of eight new projects in the office (see Appendix A). The expectation that he would produce and deliver innovative and experimental work coupled with the increased number of projects he receives places enormous pressure on this seasoned architect who still prefers to work alone. This pressure has been severe in the extension of the Prado, for which he submitted the third and final phase of design in January 2001. Cities outside of Spain that have given a home to his buildings include Berlin, Stockholm, Louvain, Venice, Houston, Detroit, Washington, D.C., and Los Angeles. He has joined the small, select group of international stars.

Técnica Superior de Arquitectura de Barcelona on 5, 12, and 19 November 1974.

II. Writing: Reflections on Building

Moneo published his first article, a critique of Francisco Javier Sáenz de Oíza's low-income housing project on the Poblado Dirigido de Entrevías, in 1961 in the journal, *Hogar y Arquitectura* right after he ended his apprenticeship at Oíza's studio.[1] The project design had its roots in the late-nineteenth-century "garden city," which the modernist rationalism of the 1920s had converted into the notion of the satellite city. Although Moneo was critical of Oíza's project in his article, he did not dismiss it outright. Though he found it outdated, he recognized that it had at least brought the Spanish architectural community into contact with modern rationalist housing designed by the likes of Gropius and Oud, but he found it outdated. More realistic solutions were required in contemporary practice based on the needs of society and circumstances of the project rather than modernist orthodoxies detached from Spain's current realities.

The article is mainly important because, by publicly criticizing the previous generation of modern architects still building in Madrid–and especially his own mentor–Moneo had made it clear that he regarded his apprenticeship as being at an end. Now he had to establish his place in the professional scene as someone no longer content with just copying the masters. As a student he had cultivated the knowledge that enriched him as a person through the readings of Ortega y Gasset; as an apprentice, he had tested architecture in both its practical and its theoretical dimensions through Oíza's projects. Now as a professional he would place design at the center of his interests and use his writing to advocate and criticize.

Writing has taken up a significant part of Moneo's time. The published articles and teaching material that he had produced over the years are useful in tracing the

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[1] Rafael Moneo, "El Poblado Dirigido de Entrevías," *Hogar y Arquitectura* 34 (May-June 1961): 19.

development of that part of his thinking that underlies his diverse building production. Moneo established the foundation for his writing on the practice of architecture in a series of seven articles that recorded what he had learned during his early trips to Scandinavia, Italy, and Greece; they were published in various architectural journals in Madrid between 1964 and 1965 while he was a fellow at the Spanish Academy in Rome.[2] These articles can be considered as memoranda written to inform his colleagues as to what the latest subjects on architecture were that were being discussed in Italy as well as on his experiences there. Collectively they cover three main areas: 1. Exemplars: the nature of the Paradigm, 2. On the definition of architectural form: Typology and Theory and 3. On the role of history in architecture. These also became the central themes in the evolution of his thinking thereafter.

Before sitting down to write, Moneo first read all he could find on particular projects and visited sites and buildings. When he visited a building, he concentrated on trying to reconstruct the creative process that had gone into its design. He kept in touch with his Italian contemporaries, whom he singled out because he had been particularly impressed with the maturity of Italian architectural culture. The diversity of themes he managed to master in the two years of his travels indicates how eager he was to acquire a global perspective. These themes range from questions of method and theories about the making of the architectural project, to problems of durability, permanence, and preservation in architecture, to modern architecture and its precedents, and the creative process in architecture. The prose style of these pieces is conversational; his comments range from the laudatory to the totally critical. He is sometimes objective in his criticism, at other times polemical. The essays are short and in them typically a single remark triggers a whole series of questions on a larger theoretical subject.

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[2] "Notas sobre el desarrollo urbanístico de Roma en los últimos cien años," *Hogar y Arquitectura* 50 (January-February 1964): 35-49; "Sobre un intento de reforma didáctica," *Arquitectura* 61 (January 1964): 42-46; "Una obra de Ignacio Gardella," *Arquitectura* 71 (November, 1964): 43-50; "Una visita a Poissy," *Arquitectura* 74 (February 1965): 35-41; "Sobre Gaudí," *Arquitectura* 75 (March 1965): 9-14; "Notas sobre la arquitectura griega," *Hogar y Arquitectura* 51 (July-August 1965): 67-82; "A vueltas con la metodología," *Arquitectura* 82 (October 1965): 9-14.

The range of subjects he touches on in these seven articles does not allow him to delve deeply into any one theme. However, the continuous reworking of the same subjects in his subsequent writing allowed him to consolidate his thinking over time. Teaching, too, gave him the opportunity to elaborate on theoretical and historical subjects, and practice gave him the rigor of what he calls the "insider's" perspective that realizes what the nature of architecture is in the designing and construction of the architectural project.

1. *Exemplars: the nature of the Paradigm*

Since his early years Moneo had identified what he regarded as exemplary modernist buildings in his search for new directions in contemporary architecture. In the 1960s he looked at the buildings and architects of the previous generation; his critique of that paradigm served as a basis for reflection and a foundation for his own practice. In his Barcelona years, he looked to his Mediterranean contemporaries, such as Aldo Rossi, Vittorio Gregotti, and Alvaro Siza in an effort to locate himself within his own generation and within the modern culture of architecture. In the 1980s he looked at exemplary buildings and their architects in the United States. His academic and theoretical pursuits allowed him to grasp American culture and to expand his professional practice internationally in the 1990s.

Two of the seven articles he wrote in Rome, "Una obra de Ignacio Gardella" (November 1964) and "Una visita a Poissy," (February 1965) are on modern architecture. In the first, Moneo considers Gardella's house on the Zattere in Venice, using it to focus on how a work of architecture has to acknowledge its urban setting. Rejecting a criticism commonly leveled against the house, Moneo denied that it was a work of regressive historicism, placing it instead within the modernist tradition. Half the article he devotes to other modern buildings he had visited that linked Gardella's house to a postwar alternative modern architecture that stressed the importance of context (using as examples Asplund's Gotheburg City Hall, Aalto's Enzo Gutzeit offices in Helsinki, Saarinen's American Embassy on Grosvenor Square in London,

and Le Corbusier's Carpenter Center at Harvard as the modernist counter-example). He analyzes the project (plans, elevations, details of construction) to support his argument.

Moneo prefers Ignazio Gardella to the established model of Le Corbusier. In the second article, "Una visita a Poissy," he defends this preference by comparing Gardella's house on the Zattere with Le Corbusier's Villa Savoye. A project has to consider the ravages of time on materials and especially on the technology used because construction is costly. Because Gardella's house was still in perfect condition after eight years–it was built in 1957 and Moneo visited it in 1965–whereas the Villa Savoye, the impeccable building he had so treasured in books, was in reality visibly deteriorating, he argued that Gardella's house, built with durable materials based on the local Venetian tradition, was closer to the modern architecture needed to meet current requirements than was Corbusier's villa. The Villa Savoye was an experimental work, a modernist manifesto that had failed the test of durability.

Representative of his phenomenological understanding of architecture, he walks the reader through both houses in the way he had experienced them, introducing the buildings through the eyes of a practitioner intent on getting into the mind of the architect who had designed and built them. He was interested in the experience that direct contact with the architectural work offered as an additional stimulus to learning–plans and photographs cannot convey the reality of a building; only close inspection can convert plans into something real and concrete and help someone understand the creative process in his future practice.[3]

Finally, he broadens the argument to a larger theoretical context that shifts the discussion from mere architectural experience to an intellectual event and seeks to answer questions such as, what constitutes reality in architecture? In what way is the architectural product a result of a vision of the world? What is the relationship between architecture and the other visual arts? These are some of the questions he formulated in his writings and which he sought to answer in his built work.

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[3] Moneo, "Una visita a Poissy," p. 36.

Ten years later, in 1975, still obsessed with durability he singled out José Luis Sert's apartment building on 348 Muntaner Street in Barcelona, built in 1930, as an example of the indifference of architects in the thirties to questions of durability, leading them to use techniques and materials that would not last.[4] They were more interested in expressing the aspirations of a new society in their programs than in assuring the longevity of their productions. Both Le Corbusier and Sert's buildings would have to be restored, or, in contrast to classical architecture, in growing old they would disappear.[5] Moneo regarded them as paradigms that needed to be preserved in order to serve as texts for the future.

With regard to the architects themselves, Moneo appreciated Gardella's pragmatism connecting the project to its circumstance. In Le Corbusier he found an originality that seemed false when reproduced by other architects. It was in Gaudí, however, in whom Moneo detected the incommensurability of the creative act. In the third of his seven essays, "Sobre Gaudí," Gaudí came as close as one could to the Creator, even as he revealed the anxiety of every architect, and was envious, ambitious, and eager to find whatever it was that guaranteed him immortality through his creations. For Moneo, Gaudí is the most tectonic and creative architect. Although his forms are overcharged with deep feelings, he was one of the few architects who generated form from construction.[6] In studying Gaudí, Moneo discovered that an architect's work cannot be understood divorced from his personality. Gaudí did not need to rely on any man-made theory or experience to create architecture. He was self-sufficient.

One could say that Gaudí, by penetrating the formal criteria of Nature, sought to offer to the Creator the world of which he dreamed, a fantastic world, primary, elemental, in which hidden beings that had almost been lost reappear, miraculously

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[4] Rafael Moneo, "Si te dicen que caí: Las últimas obras de J. L. Sert en Barcelona," *Arquitecturas-bis* 6 (March 1975): 10.
[5] Ibid., p.11.

recovered by Gaudí, who delved into the spatial capacity of men as perhaps no other architect had done before. The world of Gaudí is not a linguistic experience, but a profound study of the wishes and necessities of man, a profound study of his desires.[7]

When Moneo was first introduced to the critique of modern architecture in the early 1960s through the Scandinavian and Italian practitioners, he had been bent on escaping the limitations of a regional architecture that was applying outmoded dogmas to the discipline. His exposure to the modern paradigm and its critique outside Spain reinforced his conviction that the contemporary architect should stop imitating the masters, who wanted to be original out of "strictly personal motives." In an article published in 1966, "A la conquista de lo irracional,"[8] he argued that the contemporary architect should try to incorporate the invaluable contributions of modern architecture into his work, for he acknowledged the modern architects' successes in revitalizing architecture through their "revolutionary plans" and methodological rigor. (Moneo here is referring to functionalist and rationalist theories of the 1930s.) What he objected to was that their proposals were based on abstract notions of invention and originality that totally rejected tradition, history, the nature of materials, and experience. Although Moneo's position was still somewhat undefined and dispersed, he was already clear about not supporting any dogmatic, utopian, or technological experimentation merely for the sake of originality. He believed that the architect's social responsibility was to construct by tempering experimentation with experience. To radical progress he answered with the alternative of efficient realism. Methodical planning can assist the architect in defining his domain of action.[9]

Moneo was to go a step further in establishing his position on architecture and its practice, when he briefly engaged the larger questions of the autonomy of architecture and architecture as language, topics the architects of the 1960s chose for their experimentation. In the 1950s function and rationality could not sustain the

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[6] Moneo's observations in our meeting on January 7, 2001.
[7] Rafael Moneo, "Sobre Gaudí," *Arquitectura* 75 (March 1965): 12.
[8] Rafael Moneo, "A la conquista de lo irracional," *Arquitectura* 87 (March 1966): 1-6.
[9] Moneo, "A vueltas con la metodología," p. 13.

creation of form. The next generation of moderns–Rudolph, Stirling, Ungers, Kahn, and Aldo van Eyck–had recovered the meaning of form, experimenting with "irrational elements" (meaning elements such as formal language), to recover "the possibilities of communication through form in space."[10] Now Moneo's generation had been called upon to synthesize the experience of previous generations to obtain a modern architecture that respected and coexisted with other architectures.

Circumstance called for an architecture that would ensure a building's permanence within the modern tradition; an architecture that was concerned with construction, techniques, materials, and meaning in a building's form. The correct use of materials and the revival of techniques would provide meaning to form without recourse to revivalist historicizing allusions, such as those found in the work of Rudolph, Stirling, and Ungers.[11] "Communication through expressive liberty requires a mental activity capable of capturing the most hidden nuances, able to give place to the immediate."[12] At the time Moneo associated "the immediate" with spontaneous, anonymous vernacular architecture; an architecture closely attached to local materials and techniques.

Moneo's models were Kahn and Aldo van Eyck, who sought to capture the symbolic content of form where form is not only language, but idea. Form should reinforce communicability; it should contain or capture direct, real experiences that go beyond representation. These direct and real experiences were embedded in the materiality, the construction, of architecture. The architect who brought together this expressionist sentiment surpassing all limitations is once again close to home–Gaudí.

In the 1970s Moneo also reaffirmed his affiliation with modern architecture when postmodernism posed a threat to the modernist project. This loyalty to modernism was partly to provide the material to escape Spanish architecture's stagnation, but it also served as his meeting point with architectural discourse abroad.

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[10] Moneo, "A la conquista de lo irracional," p. 1.
[11] Ibid., p. 5.
[12] Ibid., p. 6.

At the time Rossi and Gregotti–both Milanese architects of the 1960s whose mentor was Ernesto Rogers–opposed Zevi's approach to architecture that privileged the organic to look for architecture's proper fundamentals: for Rossi especially, coming from a Marxist perspective, architecture could be a proper, autonomous science that could define its own territories of action. Rossi viewed this path to autonomy of architecture in the typological analysis of the elements that comprise the city, introduced in his seminal book, *Architecture and the City* (1966). On the other side of the Atlantic, the New York Five were seeking architecture's autonomy in their experiments with linguistic theories as a mechanism for generating form to enhance the formal components of theoretical statements, ignoring the circumstances of landscape, site, and program. Eisenman, who had an affinity with European architecture, was determined to reach the authentic spirit of modernity, which he thought was hidden in the already forgotten formal principles of modernity–hence his determination to free architecture from any tangible obligation to program, function, place, or construction as seen in his Houses I to X (1968-78).

Although Rossi and Eisenman viewed architecture from different perspectives, they both advocated its autonomy. For both, the mental activity supersedes the sensory one. On the other hand, Venturi, who had developed an affinity with history as Kahn's disciple and a Fellow at the American Academy of Rome, had advanced the theory that "communication in the physical world is based more on the support of non-architectural mechanisms than on those that see architecture as a discipline through which the physical world is both transcended and intruded upon,"[13] which he had put forward in his most influential book, *Complexity and Contradiction* (1966).

In contrast to all these theoretical investigations, Moneo found Alvaro Siza to be the most successful of his generation in restoring the validity of modern architecture

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[13] Rafael Moneo, "Aldo Rossi: The Idea of Architecture and the Modena Cemetery," *Oppositions* 5 (1976): 53; written in 1973 before the Triennale of September 1973; first published in 1973 in Barcelona by the Escuela Técnica Superior de Arquitectura en Barcelona, as a response to the manifesto of the Tendenza, an Italian group led by Aldo Rossi, for a rational architecture which was presented at the Triennale of Milan in 1973 and made a name for Rossi in the United States.

through his built work. Siza's work is described as "his will to non-style, in the lack of a stylistic compromise. ... Siza's non-style lies in the evidence of the real, of the concrete. The formal motives, architecture, will appear in the understanding of the program, the place, the concrete, and the recompense for his effort was the meeting with architecture."[14] For Siza,

> knowledge of modern architecture transcends strict information and permits [the architect] to incorporate the formal patrimony of the modern tradition in his work with an instrumental character. . . . it is frequent to see various languages superimposed on one and the same episode in Siza's architecture, and this superimposition helps him resolve diverse demands . . . the architecture of Siza is radically impure, contaminated . . . to achieve unity in the dispersal would be the essential for Siza now. The order of space is only in the space itself: it is not something exterior to it, imposed or added.[15]

In reading this passage, one senses that Moneo was talking about himself. He saw himself in Siza's modest and sensitive decision to work within the modernist tradition at a time when current trends were questioning the validity of modernity. The lesson Moneo drew from his study of Siza's work was that there was no crisis in modern architecture, and that the efforts of the architects of his immediate past can be useful to his own generation. It became Moneo's task to investigate the possibilities of a synthetic understanding of Eisenman's love for theoretical investigation, Rossi's obsession with the city, Venturi's promised land of complexity and contradiction and Siza's non-stylistic commitment to modern architecture.

At a conference on the status of modern architecture in the last quarter-century organized in New York by *Oppositions* in February 1977, Moneo enriched his previous endorsement of Siza's modernism by openly bringing history into the creation of the new. Moneo argued that contemporary architects were still working on the premises of the modern movement. The project of modernity and what was inherited as dogma should not be taken at face value; it should be interpreted taking

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[14] Rafael Moneo, "Arquitecturas en las márgenes," *Arquitecturas-bis* 12 (March 1976): 3
[15] Ibid., p. 4.

new circumstances into consideration. The project of modernity could only benefit from its opening to history and the discipline should acquire an active role in proposing the right interpretations. Moneo was assuming a polemical position to the rising phenomenon of postmodernism as it had been proclaimed by Charles Jencks that same year in his book, *The Language of Post-Modern Architecture* (1977).

> We should forget the modern movement as a direct point of reference, and return to reflections on architecture that will permit the construction of the new, without fear of the inevitable links that the dream from which we are awakening [i.e., history and memory] has produced because in these links one should look for the meaning that the specificity of the discipline has, without forgetting that the construction of architecture has always entailed the invention of form. In that respect, history and the new can coexist. [16]

In the 1980s Moneo brought his critique of contemporary architecture across the Atlantic. Three papers delivered between 1982 and 1990 summarize Moneo's thoughts on contemporary American architecture, whose impact can also be seen in his proposal submitted to a limited international competition for the Kursaal in San Sebastián in 1989.

In 1982 he presented a paper he called "Unexpected Coincidences"[17] at a conference at Ohio State University on Peter Eisenman's Wexner Center of the Visual Arts at that university. In 1985 he published his last article in *Arquitecturas-bis* on I. M. Pei and Henry Cobb's controversial John Hancock building in Boston.[18] In April 1990 he presented his critical study, "Reflecting on Two Concert Halls: Gehry versus Venturi"[19] as the Walter Gropius Lecture at the Graduate School of Design at Harvard.

In the paper on the Wexner Center for the Visual Arts, Moneo argued that the

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[16] Moneo, "Entrados ya en el ultimo cuarto de siglo," *Arquitecturas-bis* 22 (May 1978): 4.
[17] Rafael Moneo, "Unexpected Coincidences," in Peter Eisenman, *Wexner Center for the Visual Arts* (Rizzoli: New York, 1989)
[18] Rafael Moneo, "Sobre el John Hancock de I. M. Pei & Partners," *Arquitecturas-bis* 52 (December 1985): 4-12; published in English in the *Harvard Architectural Review* 7 (February 1989): 176-81.
[19] Rafael Moneo, "Reflecting on Two Concert Halls: Gehry versus Venturi," the Walter Gropius Lecture, 25 April 1990, published in *El Croquis* 64 (February 1994): 156-75.

building proved that architecture cannot be produced without considering outside circumstances. In this case the site was so important that the architects had to reinvent its context. As a continuum of Eisenman's contextual investigations in his European projects of the 1970s (Cannareggio, Venice in 1978, and the building at Checkpoint Charlie in Berlin, 1983), he rejected traditional contextualism to investigate the metaphorical meanings of context. "He base[d] his architecture on the implicit premises of the site" in an effort to suppress time and the figural aspects which once characterized buildings. What made architecture were structures and grids. The reinsertion of the tower of the Old Armory as a referent to make the building visible was an attempt to restore the ambiguity of the main idea of the single building vanishing to create a landscape that engages its surroundings.

Of the John Hancock building Moneo wrote that it acknowledged the urban context of its site and had its impact on redefining a vision to complete the city. However, architecturally Moneo perceived it as an abstract object linked to the artistic experience of minimalist art as expressed in the conceptual work of Robert Morris. Morris had described as "new painting" the direct manifestation of color without any reference to the form that made it visible and as "new sculpture" the presence of a volume without any allusion to the material that supported it.[20] Moneo's investigation focused on whether "these concepts could be translated into architecture. Or . . . was not architecture the most adequate field to explore the primogenital condition of form, on which not even construction is evidenced?" The John Hancock building was intended to do both–to adopt primary forms in the negation of its orthogonality and the perspectival world and to find an enclosure where the construction of the plane and the texture of the elements that composed the plane would disappear. This proved to be almost impossible. The linear horizontal structural components of the plane were still visible. Architecture–even as artistic inspiration–could not circumvent its umbilical connection with construction. The point of transition from abstract form to the materiality of construction is the most crucial moment in architecture. The John

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[20] Moneo, "Sobre el John Hancock de I. M. Pei & Partners," p. 6.

Hancock building had failed to meet the challenge.

Moneo wrapped up his five years of intensive commitment to the education of young architects at the Graduate School of Design with a comparative study of two recent American buildings, both of them music halls: Robert Venturi's hall for the Philadelphia Orchestra and Frank Gehry's Disney Concert Hall in Los Angeles. For Moneo, Venturi and Gehry's careers were summarized as the "determining forces in understanding the last 25 years of American architecture."[21] Whereas Venturi was a catalyst in promoting complexity in architecture and bringing architecture close to societal contradictions and populism, Gehry "tried to walk away from the deadlock that gripped American architecture after a run of commercial post-modernism, and after the academic interest in post-structuralism in the 1980s."[22]

Venturi's concert hall represents continuity with the great institutions of the past; it is full of memories. Gehry's building signals the arrival of new blood. Moneo begins his analysis by considering how both architects conceived their buildings in terms of context, the image that would best represent their patrons, their own individual signature, program, materials, and construction. Venturi manipulated the steel frame and veneer façade construction to create a pure illusion of past architecture, a simple image whose value is recognized only when consumed.[23] Gehry is committed to construction; he associates forms with materials, which provide the key to understanding formal meaning. "Gehry pretends to rescue, phenomenologically, the material that allows it to speak."[24] Moneo closed his comparative study by reflecting on the "slippery grounds of context and site."

Context and site have been the underpinnings of Moneo's projects throughout his career. In the 1990s the impossibility of identifying notions equal to theory and type to underlie a universal understanding of architecture raised the question of context and site in Moneo's theoretical agenda. Venturi had always been sensitive to site and

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[21] Moneo, "Reflecting on Two Concert Halls," p. 7.
[22] Ibid., p. 7.
[23] Ibid., p. 21; Moneo had already written this critique of Venturi's conversion of an old type to image in his article "On Typology," p.39.
[24] Ibid., p. 24.

program which in a sense defines form. Gehry's hall responded to decontextualized Los Angeles by receiving energy from a "gravitational force where, when construction occurs, the forcefield freezes and the architectural form emerges."[25] Moneo considered both buildings appropriate to their surroundings and context. In that respect, the problem of context is better addressed when substituted by the concept of appropriateness which "is more open, giving more leeway to intervention, to dialogue, without dictating a formal decision. . . . This concept would allow us to work in different cities . . . which does not necessarily mean employing a previously established language or submitting to existing circumstances."[26]

For Moneo, Venturi's and Gehry's concert halls represent the present condition of contemporary architecture that lies between "contingency" and "necessity," a distinction he borrowed from his reading of Pareyson.[27] Necessity is defined as the idea that "something has to be the way it is, an absolute need," and contingency as explaining that "something could also happen otherwise." Contingency is at the root of creativity, and Gehry's architecture represents it, "and yet, I would like to believe that architecture is needed under certain circumstances, that there are moments when only architecture, understood in a traditional sense, is able to solve some problems"[28] and Venturi's architecture is dictated by necessity.

Moneo recognized the value of Eisenman's lifelong intellectually sophisticated investigations in the design of his later buildings and Cobb's investigations into the artistic form of the tall building–both enabled by the sophistication of state-of-the-art technologies. However, in the 1990s he defined his position as being somewhere between that of Venturi and of Gehry. His architecture should lie between necessity and contingency; it should be appropriate to its context, site, and circumstance and still creative in the materialization of its form.

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[25] Ibid., p. 29.
[26] Ibid., p. 30.
[27] Luigi Pareyson, *Conversaciones de estética*, p.80.

2. *On the Definition of Architectural Form: Typology and Theory*

Although Moneo has always rejected the notion of style in the making of the architectural project and his reading of history, he has always viewed architecture as attached to a formal theory. Luigi Pareyson's theory of formativity, which not only defined a theory of form, but also explained the relationship between the work of art and its author, became the compass of his career and critique.

Teaching helped Moneo consolidate his thinking regarding the definition of architectural form through the need to critique in the classroom the ideas of the moment: structuralism, linguistic theories, and scientific methods in the 1960s, the role of theory and typology in the 1970s, and postmodernism, deconstruction, and post-structuralism in the 1980s. His line of thinking on these subjects was initiated at a series of conferences on education held at the University of Rome in 1964, which resulted in two articles, "Sobre un intento de reforma didáctica" (January 1964) and "A vueltas con la metodología" (October 1965). In the first, Moneo agreed with the Italians Quaroni, Portoghesi, Fasolo, and Zevi that architectural education has to be connected with the social reality of the architectural project, allowing history to play an operative part in the creative process. In the second, he stressed the value of methodological rigor in converting experience and theory into creation while maintaining continuity with the past. Knowledge and experience was to be used methodically for the definition of architectural form.

His handwritten lecture notes from the School of Architecture in Madrid for the years 1965 to 1970 are ample evidence of his efforts to structure his reading of architectural history and theory according to the subjects he taught. They include specific types (e.g., reiteration of buildings in urban settings; the history of the window, its types and functions; the patio as a spatial element), composition, form and structure (e.g., the supertexture [openings] of a building and its relation to structure; the modern tradition from an analysis of the theory of composition; elements of

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[28] Moneo, "Reflecting on Two Concert Halls," p. 31.

composition and formal analysis of rationalist and utopian architecture), and history (e.g., historical evolution of space, historical analysis of utopia). Moneo was asked to structure his classes in a way that was directly opposite to the structure of traditional classes, based on the reading of history and historic treatises and taught by "old guard" professors like Victor d'Ors and Luis Moya. By doing this, he sought to place modern architects such as Wright, Le Corbusier, Mies, and Aalto in the Western historical architectural tradition by portraying them as reacting to 19th-century academic architecture and trying to address changes in society and technology. The masters had called their reaction a revolution, thereby attaching architecture to the larger social and political debates of the time; he preferred to see it as an adaptation, a synthesis of modern additions to the Western tradition, thereby attaching architecture to its history.

The most characteristic example of his approach was the way he structured his reading on the evolution of the concept of space in various periods of Western architecture up to the 20th century. In Moneo's view, the work of Wright, Le Corbusier, Mies, Aalto, and Louis Kahn offered distinct notions of modern space – all of them important for a critical understanding of modern architecture and as modern interpretations of Western architecture. Moneo's reading was based on the notion that the study of architecture should deal with all its facets; it should not be limited to polemical and shortsighted dogmas. At the time he was reacting to the old guard's insistence on teaching obsolete academic schemes, as well as the confusion among the postwar generation of architects in Madrid caused by their attempts to remain faithful to the first principles of the International Style while simultaneously criticizing it. The students sought him out for his critical capacities, and this forced him to present in class the theories currently being discussed in the discipline and being tested in architecture abroad, such as structuralism, linguistic theories, and the theories of design based on scientific method formulated by Alexander and Norberg-Schultz.[29]

Of his writing on architectural education, the 65-page "memoria:concepto," included in the *Oposición a la Catédra de Elementos de Composición en las Escuelas*

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[29] From my interview with Antón Capitel, a former student of Moneo, in Madrid, July 9, 1999.

Superiores Técnicas de Arquitectura de Madrid, Barcelona y Sevilla, that Moneo had submitted in his application for a professorship, is perhaps the most important. Inspired by current writings of Rossi and Venturi, in the "Memoria: concepto" he makes his first and last attempt to write a prescriptive theory and discuss methods for the creation of architectural form. Although the *Oposición* had originally been inspired by earlier writings and his previous five years of teaching, it was structured as a critique of the failed efforts to modernize the Catédra de Elementos de Composición in Madrid.[30]

Moneo's search for a definition of form was again aided by Luigi Pareyson. Pareyson also substantiated his critique of current trends that promoted a systematization of design through method–structuralist and linguistic theories, investigations of type, and so forth–in attaching the creation of the work of art to the subjectivity of its author rather than the objectivity of scientific method. His task would be to rethink modern architecture within the framework of history as well as within its current cultural, social, and economic reality produced through the interpretative skills of its authors. Pareyson's theory was that "the work of art is the rule and the result of the creation."[31] "Formativity" describes an organic process that moves from the seed to the mature fruit, but is also contingent on the relationship between the artist and his work. It determines the vision of the form and its realization. If the artist, absorbed by his own work, does not obey the internal coherence of the work, the work fails. At the same time, this internal coherence is created by the artist. This is what dictates "freedom and necessity" in the work of art, "in that the work of art is contingent and original in its existence, but necessary and rigorous in its legality."[32] The artist is at the same time the author and obedient

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[30] A condensed version of the "Memoria:concepto" was published as the *Programa de Elementos de Composición* in 1972 and the project exercises were published annually under the title *Ejercicios del curso de Elementos de Composición* between 1972 and 1978 by the Escuela Técnica Superior de Arquitectura de Barcelona.

[31] Luigi Pareyson, "Lectura y Crítica," *Conversaciones de estética* (Milan, 1966; Madrid, 1978), p. 28.

[32] Ibid., p. 31.

subject, as well as the creator and inventor. What for the work is seed, embryo, growth, and maturity, for the artist is intuition, project, test and result; the result is ascertained when the artist discovers in his test the rule of organization that proves that the finished work is the mature fruit. Once the work is complete, the artist realizes that, given the circumstances, there was only one way to do it.

Among the many possibilities that the act of making creates, the real one is inherent in the work. There is a dialectic between the artist's activity and the intentionality of the work. The will of form acts only inside and through the labor of the artist, and the artist's activity reaches its maximum intensity when it is incorporated into the independent will of the form. "The synthesis of activity and receptivity," in which speculation and truth meet, defines the fundamental characteristic of human beings for Pareyson.

Formativity implies an inclusive activity that starts with the conception of the work, its realization and its contemplation: ". . . the structure of 'formativity' uncovers the uncertain and accidental character of knowledge and creation while at the same time it confirms the firm and durable peace that derives from it [creation], either through the tranquil enjoyment of contemplation or through the definite continuity of the form."[33]

The "Memoria:concepto" became Moneo's working manual for a course in Barcelona that combined theory and design. The essay summarizes the results of a long period of reflection on topics relating theory to practice, such as the validity of language, style, and type in contemporary architecture as seen through the lens of history, which Moneo had started elaborating on his trips in the early 1960s and through his teaching of the late 1960s and which was integral to his architectural production–both built and written–in the 1970s. Since the old system of apprenticeship had been abandoned, Moneo proposed to reform the making of the architect by basing education on a knowledge of theory. Theory would become the indispensable tool in the architect's hand. Projects would not be designed merely for

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[33] Ibid., p. 33.

practice, but also for the opportunities for analysis and reflection on the concepts that they presented.

Moneo argued that the profession had lost contact with reality; it had been vacillating between a degraded pragmatism, which converted every project to an administrative document, and utopian schemes. Thus the project was converted to a document useful for administrative purposes or for personal satisfaction, but which rarely became a reality.[34] An architectural project cannot rely on a priori theories and methods of design, such as those proposed in Christopher Alexander's "Notes on the Synthesis of Form"[35] or Norberg-Schulz's "Intentions in Architecture,"[36] nor on classical theories of composition of elements presented by Alberti, Palladio, Blondel, Guadet, or Durand, nor on visual theories of form and gestalt theories of perception (Fiedler, Hildebrand, and Wölfflin). The architect has to find the authentic dimension in an analysis of social reality that would indicate what the "elements of architecture" are and then propose the methodological basis for their use.

Moneo proposed "an interpretation of reality that would allow us to understand how form is generated to make the space in which man lives; it would then explain the specificity of the architectural form from which one would be able to deduce what the architect should do, that is, what his position would be with regards to the project."[37] He understood that the reality the architect deals with is artificial. In opposing functionalist theories in which form is implicit in the program to organic theories in which the form-context relationship seems to be indisputable, he argued that "architecture belongs to the domain of the artificial, the non-natural, something that is not governed by an automatic mechanism that allows the appearance of form." He defined the conditions of artificiality as historical continuity, tradition, culture, ways of life, and ideology, that is, all that is circumstantial but not apparent, leaving room for inexhaustible interpretation. Architecture cannot emerge from a general theory of

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[34] Rafael Moneo, "Memoria:concepto," *Oposición a la Catédra de Elementos de Composición en las Escuelas Superiores Técnicas de Arquitectura de Madrid, Barcelona y Sevilla* (November 1969), p. 17.
[35] Christopher Alexander, *Notes on the Synthesis of Form* (Cambridge, Mass, 1964).
[36] Christian Norberg-Schulz, *Intentions in Architecture* (Cambridge, Mass, 1965).
[37] Moneo, "Memoria:concepto," p. 17.

form or scientific method. "It is from the analysis of those conditions of life which define architecture itself that we can develop a theory of architectural form that explains its genesis."[38]

The idea that a concrete reality based on "artificial" and "heterogeneous variables" could generate continuity in architecture had grown out of recent typological studies by both historians and architects who advocated maintaining the continuity and coherence of the 19th-century European city. Moneo saw these "artificial forms" embedded in the type. He claimed that a critical understanding of typology and the type could be the way to regain the link between architecture and the reality of the city. The type was the model from which the architect deduced certain characteristics. When introduced into the complexity of the current reality, it underwent a process described by Rossi as "localization." "Typology does not consist of the object of the architect's work; it allows it to occur." In its turn, the type as a model can become obsolete if new techniques appear or if the activity or the meaning with which it is linked is abandoned. New types are bound to arise from the study of obsolete types; architectural form is not born ex-nihilo; "it is inherent in the culture in which the work is produced."[39] The type can help the architect link his architecture with reality.

The appearance of a type demands its prolongation, its extension, its continuity. . . Each type resolves within itself the issue of inscription in a broader lapse of time, which allows the inclusion of a whole series of minor objects. This continuity could be described as "formativity," and would oblige us to understand reality at very distinct levels.[40]

Under the influence of Pareyson's theory of formativity Moneo understood type to constitute a rule that can support and drive the creative process. For Pareyson "the rules have to appear at the moment in which the rigor of the rigid norm is not only conceived, but is also identified with the act of freedom; that is, the rules are not meant to be applied formally, but to recover their inventive character and to be adopted for

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[38] Ibid., p. 46.
[39] Ibid., p. 47.

their operative efficiency. The rules examined as part of the artistic creation become models rather than manuals to stimulate a new energy, order and security."[41]

Moneo saw typology as the appropriate means to regain two imperatives: first the understanding of the modern work of architecture as part of a continuum rather than a unique object, and second the connection with reality lost by the institutionalization of the profession. The "localization" of type allows the form to act on the type and tailor it to the circumstances of the project. Formativity provided the means for recovering continuity and coherence in the interpretation of the type as a rule while tailoring the form according to the nature of the work.

This was Moneo's first attempt at positioning himself on the subject of type and typology, an effort that would culminate in his essay, "On Typology," in 1974. Moneo's next step was to establish "some mechanisms and instruments of work that allowed control in the long run in the elaboration of the design." The instrument he proposed for design control was to understand architecture as a language.[42] To achieve this, he studied the work of linguists, sociologists, and anthropologists, Saussure, Gamberini, Koenig, Eco, and Levi-Strauss. By the 1960s architects had become attracted to linguistic theories for the possibilities they offered in their direct application in architecture. Moneo, attracted by the innovations of the New York Five's linguistic experiments with form, went even further to propose the use of a linguistic vision of architecture, making it the methodological key to the autonomous production of architectural form. He explains his conversion as lying in the decodification of construction:

> The laws that impose good construction could constitute the basis for establishing linguistic codes . . . but the problem is not so elemental as to allow a reading of architecture exclusively from the constructive point of view. . .. To articulate constructively the elements of architecture into the series of syntagmas which give place to the work could be a splendid criterion of

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[40] Ibid., p. 46.
[41] Pareyson, "Lectura y Crítica", p. 80.
[42] Moneo, "Memoria:concepto," p. 48.

> composition. . . . The work of architecture thus understood does not acquire its authentic dimension in its final stage, but it tests its structure in all the intermediate stages.[43]

Apart from the syntactic codes, each element carries a semantic meaning, which the architect should control at each level of design. Once the formative norms of a linguistic understanding of architecture are established–norms that guarantee the internal coherence of the form–architecture must be checked against the environment in which it is inscribed and from which it takes its meaning.

Moneo argued for the importance of viewing architecture as a system in order to establish the conditions in which the work evolves: vernacular architecture is conditioned by a closed system; architecture that uses technology (energy) by an open one.

> The architect's work is to consolidate or modify the environment in which the work is inscribed: the architect contributes by endowing the physical structure to a future that makes sense only within the context of its reality. To rescue this sense of reality in the work of the architect is our intention; if we succeed, our effort will vacillate between alienation and utopia, the two extreme conditions that only an authentic dimension of design can destroy.[44]

In his drive to be attentive but critical to the novelties of his time, Moneo fused distinct aspects of prevailing typological and linguistic theories hoping to come up with a prescriptive theory of the definition of architectural form. More than the theory *per se* what becomes a norm in Moneo's way of thinking is the methodology used, that is, the fusion of current theories through criticism and interpretation, a synthetic skill that he will use repeatedly not only in his writings but in his buildings as well. When both typological and linguistic theories faded away, Moneo was still able to reformulate his theory by holding onto his original belief that linking architecture closely to the reality of its construction would guarantee its permanence. Moneo had already established the foundations for a realistic approach to architecture that would eventually condition

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[43] Ibid., p. 57.

the making of the architectural project on the specificity of site and program and social validity by giving primacy to structure over form. The architectural form would be created through knowledge of construction, which would uncover the uncertain and accidental character of the work of architecture only to confirm its durability in the soundness of its structure. In that respect, elements such as walls, floors, ceilings, windows, doors, become autonomous elements of design that participate in a larger synthesis always tested against the structure of the building.

In the course of the 1970s Moneo exhausted his typological investigations on the theory of practice. His essay on Rossi's typological studies of the city (1973), his typological reading of Frank Lloyd Wright's prairie houses (1974), his essay "On Typology" (written in 1974 in Barcelona, published in 1978 in the United States), his unpublished essay "On Theory" (1976), and his paper "On the Typological Principles in Aalto's Work" (1981) were all inspired by his academic activities in Barcelona.

In the essay on Rossi, "Aldo Rossi: The Idea of Architecture and the Modena Cemetery," first published in Spanish in 1973, Moneo juxtaposed Rossi's book, *The Architecture of the City*, with his project for the Modena cemetery to see how his thought was converted into practice. Rossi had defined type as a preconceived formal structure that had to comply with the abstraction of theory. It could explain theory, but it relinquished novelty; it privileged theory over practice, and rejected architecture as a purely personal task. For Rossi, "to construct is simply to act on the basis of reason, not, as one might think, to materialize thought."[45]

Moneo defended an approach to the city where construction is not the direct representation of an idea. It is not an automatic procedure; it is part of the creative process that transforms the idea into a building using materials and techniques. In this process the personal intervention of the architect at the concrete level is indispensable. "For the architect does not act in a vacuum, in radical solitude, but, on the contrary, knowing what the collective in the city is, he, as the individual, can penetrate the place

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[44] Ibid., p. 68.
[45] Moneo, "Aldo Rossi: The Idea of Architecture and the Modena Cemetery," p. 4.

where architecture belongs and make architecture;" architecture is "an individual task which in a competitive society systematically stimulates novelty."[46]

To design his extension of the Modena cemetery, Rossi used a type of house for the dead. In the name of history and memory he created an artificial social milieu whose meaning is found in ritual.[47] The cemetery is constructed with primary elements; construction is very simple; detail is eliminated for the sake of greater clarity of construction; the mental operation must be obvious. For Moneo the project lacked the intervention of the architect, the care for construction and detail that puts the architect's stamp on a building and increases its semantic value in its novelty. The building never materialized; it was a pure representation of the project. Although Moneo admired Rossi as a critic, especially for his contribution to the development of current urban thought and his critique of modern urbanism through the resurrection of the old city, he felt that his creative efforts as an architect did not do justice to his theories.[48] An interpretation of architectural design based on the critique of the Rossian understanding of type became Moneo's driving force in his projects of the 1970s.

In November 1974 Moneo gave a series of three lectures on Frank Lloyd Wright's prairie houses at the School of Architecture in Barcelona.[49] In them he countered Zevi's dogmatic appraisal of Wright's work as revolutionary by placing him among the developers of the ethically conservative evolution of architecture in the United States, and especially the Chicago school at the end of the 19th century, which had supported the values of the individual, of the land, of freedom, of the notion of simplicity. In his lectures on Wright's houses, Moneo stressed the importance that classical principles assumed in Wright's work: "The house is before anything else a sacred space in which the ceremony of life develops in a religious sense."[50] Since Wright's houses were rooted in a certain building tradition, it was possible to read

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[46] Ibid,, p. 80.
[47] Ibid., p. 15.
[48] Ibid., p. 21.
[49] Rafael Moneo, "Wright o el disfraz de la ortodoxía," three lectures given at the Escuela Técnica Superior de Arquitectura de Barcelona on 5, 12, and 19 November 1974.

them by basing his analysis on the evolution of certain types.

Moneo looked at Wright's buildings dating from between 1893, when Wright left Sullivan's studio to start his own, and 1909, when he left his family and studio to go to Europe. During these years, he worked incessantly. In the years 1893-1900, he studied and experimented; from 1903 to 1909 he converted proposals to types that eventually led him to the famous prairie houses, culminating in the Coonley house and the Robie house.

Moneo traced Wright's evolutionary trajectory through the innovations he made in successive houses, using Wright's definition of the ideal house in terms of its elements, access, staircases, fireplace, windows, materials, relationship between exterior and interior, construction and space, and its complete adherence to the organic. In each project he tried to capture how the idea of the sacred was converted to an architectural proposal through the use of certain formal elements, geometry, and experimentation with different architectural languages ranging from the Greek temple to Gothic space and classical composition. By isolating the instances of borrowing in his projects, Moneo showed how Wright managed to incorporate diverse typologies and make them submit to the main principle, the sacredness of the project.

This understanding of the evolution of Wright's work proved the existence of a meticulously articulated operational theory of design; it explained inconsistencies as experimental and absorbed any innovation and transformation within continuity. By showing that the Coonley and Robie houses could not have been produced without the experience of the previous projects, Moneo was able to demystify Wright's god-like image. The results of his work were partly due to his talent and vision, but mainly to his continuous elaboration and reworking of form, function, and program, and to the contributions of his gifted collaborators.

In the third of his typological studies, Moneo turned to the work of Aalto, responding to the criticism that Aalto was an eclectic "who negated the existence of traditional compositional instruments."[51] Moneo argued that one can trace throughout

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[50] Ibid., p. 8.

[51] Rafael Moneo, "Principios tipológicos en la obra de Alvar Aalto," in Victor Brosa, Alvar Aalto

Aalto's work, in each of its distinct periods, the complete evolution of a group of thoughts on architecture based on some themes attached to the structure or the organization of the building. These themes are already present in the first works and are stylistically sufficiently diverse to extend in the late works as well.

Aalto's architecture evolved around the themes of the staircase, the window, the roof, the context, and he returns to these over and over again in an almost obsessive way that allow us to classify them as typological principles in his work. Moneo studied the opera house at Essen, a competition project Aalto won in 1959, and from it came to the conclusion that Aalto worked fundamentally on the plan rather than on the section. At the Essen opera house the form is clearly meant to convey the condition of fluidity inside and out. Aalto's approach to the architectural work brought him to understand it as part of nature rather than of cultural history. Like a geological event, where nature springs from within, rather than from its context, the nucleus of the work is on the stage of the theater; the contour is ambiguous and not absolute. This brings his work closer to the idea of the Greek theater, which alludes to an artificial topography without any need to achieve the complete regularity of the Roman theater. The fluidity between the interior shell that wraps the theater and the exterior shell of the building defined by accesses and auxiliary services establishes a typological condition that produces the organic, tangential public entrance so typical of Aalto's work.[52]

Moneo regarded Aalto's work as a totality, which implied the underlying presence of the origins and an accumulation through time of an insistent working out of the same themes in a similar manner–he had studied Wright's houses in much the same terms seven years earlier. For both architects he used typology as a tool to define their affinity for developing a personal language.

(Barcelona: Ediciónes de Sebral, 1996), pp. 22-27; the paper was presented by Moneo at an international symposium on Alvar Aalto organized by the Escuela Técnica Superiore de Arquitectura de Barcelona on 6 February 1981. Moneo, Josep Maria Sostres, Juhany Pallasmaa, Demetri Porphyrios, Colin St. John Wilson, and Kenneth Frampton then formed two groups of three each to discuss the papers; the discussions were moderated by Josep Muntañola and Helio Piñon.

[52] Ibid., pp. 23-24.

In all these studies Moneo argued that typology reinstates continuity in history. Each architect evaluates the validity of a given type and then chooses to work with it or not. Moneo showed how both Wright and Aalto used diverse types in their work to transform them and absorb them into the main idea of their designs to define a personal architectural language. Both Wright and Aalto had used the history of architecture and memory to achieve the purely personal task of evolving a typology in his work.

Moneo's extended analysis of Wright's work can be considered as a counter example to his essay on Rossi's Modena cemetery. Together they served as the foundation for the final typological study, his essay "On Typology."[53] Moneo argued that twentieth-century modernist theories had rejected the historicizing notion of type in favor of functionalist theories, mass production, and theories of space. In the 1960s Rossi had undertaken a series of studies to explain the formal structure of traditional cities through the notion of type. To do this he investigated typology's capacity, not as a descriptive or explanatory tool, which would be the historian's task, but as a theoretical tool conducive to the production of architecture.

Under the influence of Argan's reading of type and Pareyson's aesthetic theory of form, Moneo decided that typology could become instrumental in design if used not merely as a classification system but rather as a creative process possibly conducive to a theory of form–a Wrightian model instead of a Rossian one. "The architect is initially trapped by the type because it is the only one he knows. Later he can act on it; he can destroy it, transform it, respect it. But he starts from the type. The design process is a way of bringing the elements of a typology–the idea of a formal structure–into the precise state that characterizes the single work. The list of mechanisms (or transformations) is extensive–it is a function of the inventiveness of the architect."[54]

Moneo traced the origin of type as model using the architectural theory

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[53] Rafael Moneo, "On Typology," *Oppositions* 13 (Summer 1978): 23.
[54] Ibid., p.22.

developed by Quatremère de Quincy at the end of the eighteenth century as opposed to Durand's functionalist understanding of type at the beginning of nineteenth century. The type according to Quatremère reinforced the connection of architecture to nature, architecture with its past. Moneo argued that the type was discarded by early 20th-century functionalist theories to appear again in the sixties in a series of writings that called for a theory to explain the formal and structural continuity of traditional cities (Muratori, Rossi). However, the renewed emphasis of communication, meaning and signification in architecture which signaled the impossibility of continuity turned the understanding of type from a structural element in the production of form to image (Venturi in his Nantucket houses). For Moneo the type registers the past and transmits a form of knowledge essential to architecture. The type then acquires the status of the discipline of architecture, which reinforced its historical value rather than its operative character in Moneo's conclusive reading.

After all, the type had been questioned since the time it was first articulated. Moneo would finally argue that in the work of Rossi, and even that of Venturi, a discomforting thought arises: was it not perhaps at the very point when the idea of type became clearly articulated in architectural theory at the end of the eighteenth century that the reality of its existence, its traditional operation in history, finally became impossible? Did not the historical awareness of the fact of type in architectural theory forever bar the unity of its practice? Or to put it another way, is not the theoretical recognition of a fact the symptom of its loss? Hence the extreme difficulty of applying the concept of type to current architecture, in spite of our awareness of its value in explaining a tradition.[55]

Typology could successfully recover an old city, but it could not formulate the theory for a new one. Type can explain historical forms that have derived from the coherence of construction and aim for a more complete and ambitious creation of the city. Type carries the memory and the history of form from past to present. It has a historical significance and should be used to establish new formal principles only in

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[55] Ibid., p. 41.

the transformation of the meaning of the elements of the past. "In this way, they acknowledge the immutable character of these pieces of a puzzle whose final form is unknown."

Commenting on the subject of type, Moneo confessed that although the concept had helped architects of his generation to understand the genesis of architecture, it had also misled them into thinking that it could be applied to the process of architectural creation in the modern world. In the face of the diversity of construction, new materials, and new modes of production, architectural thinking is today contaminated by the individualization and fragmentation of contemporary culture. Applying type as an operative and theoretical model in architectural construction has yielded meager results.[56] However, Moneo did not discard it entirely. Ideally, type refers to a mythical first building and the essential labor of the architect. Today, even if the type cannot act as a model to support a coherent architecture in the city, it can at least be a tool in the architect's work to ensure continuity and evolution–as it was in Wright's houses–and a descriptive tool for historians and critics to understand an architect's work, if not for the production of architecture.

By 1974 (he had already written his article "On Typology") Moneo had overcome the imperative to investigate type as an operative tool in his practice. It is in the unfulfilled promises of theory that Moneo placed his hopes for a programmatic reading of architecture in the late 1970s before relinquishing any possibility for an autonomous architecture to the reality of its construction.

In the late 1960s, theory was considered to have become an indispensable tool in the architect's practice. Before the institutionalization of architecture with the founding of the French Academy in 1671, Moneo wrote in 1965, theory had been drawn from experience, because experience permitted accurate judgments and provided a theoretical knowledge that was rigorous enough to meet the demands of

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[56] "Entretien" with Charles Poisay in *Architecture Movement Continuité* 8 (April 1985): 80.

reality.[57] Moneo wanted to revive this notion of experience as a mechanism for generating creativity, in contrast to others of his generation who, following the example of the masters, defined creativity solely in terms of innovation. In addition to experience, praxis included the mental act of registering experience through methodological rigor so that it could be filed away for future reference. In earlier times, he believed, people who began their careers as modest stonecutters demonstrated a curiosity and thirst for knowledge that had disappeared in modern times.[58] Moneo identified himself with these "modest stonecutters" who had elevated their practice from a professional to an intellectual activity by recording their work, and had thus become "masters of works." In the lives of these "stonecutters" Moneo found the meaning of being–or, better, becoming–an architect. It was in the spirit of the "masters of works" and their unlimited "curiosity and thirst for knowledge" that Moneo built and wrote in his effort to discover how he could extract "a theory made through praxis."[59]

In the mid-1960s Moneo privileged practice over theory; in the late 1960s his thinking had evolved through teaching and his professional experience to a more dynamic relationship between theory and practice. In March 1967 Peter Collins wrote an editorial–"Oecodomics"–in the *Architectural Review*,[60] arguing that only when the student of architecture discovers the theory that guides his generation can the profession rescue itself from the crisis provoked by the dogmatism of modern architecture. Moneo responded in the pages of *Arquitectura*, using an analysis of Julio Lafuente's design for the Collevalenza Church in Italy.[61] Lafuente was a Spanish architect living in Italy who had managed to extract his theory of architecture through the patient reworking of each architectural project. In Lafuente, Moneo found proof of his belief that continuous elaboration of construction methods, techniques, and materials would eventually allow one to attain a "proper, viable and synthetic theory of

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[57] Moneo, "A vueltas con la metodología," p. 10.
[58] Ibid., p. 10.
[59] Ibid., p. 11.
[60] Peter Collins, "Oecodomics," *Architectural Review* 141, no 841 (March 1967): 165-167.

architecture,"[62] and that no theory could be considered valid until it was tested in practice. Practice represented the incontestable reality and provided the facts for the architect to move ahead with his own circumstance; theory seemed to represent a higher goal as well as an instrumental device for design.

In defense of his mentor Jörn Utzon, Moneo wrote an article entitled "Sobre el escandalo de Sidney," where he said: "The Sydney project poses one of the key issues for any possible theory of architecture: is theory produced only by working on well-defined formal or semiotic contents, or, on the contrary, can theory hope to make a creative contribution able to cut into predetermined themes?"[63] That is, should theory be inspired by fields outside of architecture, or can there be an architectural theory that privileges architecture, promotes it, and testifies to its autonomy as a discipline? Moneo borrowed from Umberto Eco to provide a metaphorical answer to this question. To the argument that architecture does not provide the codes to change history and society, there is the alternative:

> . . . architecture seems to present a persuasive and indubitable consolation which also has a heuristic and inventive aspect. Part of the premise is that in the society in which it exists . . . every true work of architecture brings something new, not only when it is a good machine for living, but also when it offers a critique by its presence of the ways of living and the ideologies that preceded it. In architecture the stimulation is sometimes ideology. Architecture brings with it an ideology of living, and from there it pushes us to an interpretive reading that can add to our information.[64]

Thus, through criticism and ideology, theory can become an invaluable instrument in the architect's hands.

Moneo wrote again on the role of theory in the making of architecture in 1976. "On Theory," which he composed at the Institute for Architecture and Urban Studies in New York and later presented at a conference there, was, as Moneo described it, a

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[61] Moneo, "Iglesia en Collevalenza, Italia," *Arquitectura* 105 (September 1967): 9.
[62] Ibid., p. 9.
[63] Moneo, "Sobre el escandalo de Sidney," *Arquitectura* 109 (January 1968): 53.

programmatic text, critical of the kind of theory that aimed to predetermine the work of architecture.[65] His analysis of the instrumentality of theory and type in the making of an architectural project from the *memoria:concepto* of 1970 and "On Typology" were synthesized to answer the questions, "What is the territory in which architectural theory can be developed? What are the attributes of such a theory?" as a response to the increasing criticism of, and discomfort with, exhausted notions of type and typology. For Moneo theory could become the answer to the inability of the type to respond to the specificity of the formal invention, which he attached to the constructed world.[66]

Moneo regarded construction as the equal of architecture. Knowledge of construction is a prerequisite for the invention of form, which is architecture's ultimate task. Theory should thus focus on the reality of construction rather than on the correspondence between architectural formal principles and society. Still attached to the Rossian claim for an autonomous architecture, Moneo believed that theory should be geared to resolving internal questions of form and construction, regarding architecture as an autonomous field. Exterior factors cannot contaminate the purity of the object that is the architect's creation. Subsequently, knowledge of the theories that make architectural form possible allows an understanding of the artificiality of construction in the increasing diversity, fragmentation, and discontinuity of the city.[67]

In the early 1980s Moneo structured each year's course around a main theme, such as Le Corbusier's free plan; type; the notion of extension, criteria of composition, and evolution of a type; the "villa" of classical tradition; and mechanisms of composition in contemporary architecture. Its main theme was the analysis of the building and the critical understanding of its concrete reality; any theory not based on a work of architecture is unsustainable. "Architecture is the mediator between form and construction and the work of architecture is the outcome of this mediation, the tangible reality that makes theoretical reflection possible. And from there we can say

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[64] Ibid., p. 53.
[65] "On Theory," the version presented at the IAUS conference in New York in 1976, p. 13.
[66] Ibid., p. 17.
[67] Ibid., p. 21.

that to make architecture is to invent, or accept, the formal conventions that make construction possible."[68]

Although Moneo had eliminated the possibility of theory driving architecture, he still adhered to architecture's ability to elevate the art of construction from a manual, technical activity to a mental one. This understanding of the work of architecture which implied both an a priori and an a posteriori theory was to be achieved through the use of critical analysis and critical reason:

> If history is the support of theory–which is the same as saying that theories are latent in works–then criticism, or critical analysis, is the instrument that we have to use to identify theory and thus be able to describe the formal principles that characterize them. It is through critical analysis that we can understand which formal mechanisms architects used for a construction and what interpretations they have given to the use of distinct materials; and what values to techniques and programs. Critical analysis, in my understanding, initiates what can be called theoretical reflection about the knowledge of the theories that form the principles and criteria that form the basis for any architecture. A critical analysis that aims to connect the latest reasoning of construction has to be produced strictly on architectural terrain. Critical analysis, the awareness that theories inform architecture, makes us realize that there is critical reason, capable of providing a theory that makes construction possible. Critical analysis indicates theories a posteriori; critical reason allows us to make use of them a priori.[69]

Moneo's studies on typology and theory remain important for a complete understanding of his built work of the 1970, but in the 1980s he abandoned the idea that a universal perception of the history and theories of architecture is possible, and returned to the critical analysis of individual careers and buildings that allowed him to remain closer to the facts and thus arrive at realistic conclusions useful for his practice.

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[68] Rafael Moneo, *Programas de Curso y Ejercicios de Examen*, Composición II, Escuela Técnica Superior de Arquitectura de Madrid (Madrid, 1986), pp. 11-12.
[69] Ibid., p. 12.

> Why buildings instead of projects? Why work instead of a theoretical discourse? I believe that in the crude reality of built works one can see clearly the essence of a project, the consistency of ideas. I firmly believe that architecture needs the support of matter; that the former is inseparable from the latter. Architecture is accomplished when our thoughts about it acquire the real condition that only materials can provide. By accepting and bargaining with limitations and restrictions, with the act of construction, architecture becomes what it really is.[70]

Moneo's insistence on the building as architecture's primary concern assumes the tone of a manifesto against reducing architecture to a process and against the increasing celebration of the drawing by the media, ignoring its defining reality when it is constructed in the real world. Moneo clearly opposed holistic readings of one's oeuvre and practices that produced signature buildings. The architect's interaction with his work goes as far as producing it; then all claims to authorship end. The building stands alone for the needs of its users. Once the architect allows the building to master its own life, "his personal concerns become secondary and the final reality of the building becomes the authentic aim of our work. It is the building's materiality, its own being, that becomes the unique and exclusive concern ... a work of architecture, if successful, may efface the architect."[71] Moneo had gone a long way to grasp the current developments in the discipline and the profession.

3. *On the Role of History in Architecture*

Moneo attributed the origin of the debates of his generation in the late 1960s and 1970s and their involvement with history to Louis Kahn. If it were not for Kahn, Venturi and Rossi would not have looked at urban architecture in the same way. Kahn had changed the course of architectural history:

> ... the requirement in any definition of architecture is to know what things are,

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[70] Rafael Moneo, "The Solitude of Buildings," Kenzo Tange Lecture, Harvard University, Graduate School of Design, March 9, 1985.

> ... who did Kahn ask for help in order to accomplish this daring and provoking skirmish of reconquest? . . . One must talk of a direct alliance with old architecture, with history: Kahn returns to history, using it as a quarry from which he extracts the materials for his work. . . . he will use history, confident that it will always be present in the minds of people, and thus, by offering them images and sensations that they still remember, they will be able to recognize what things are.[72]

This endorsement was made in the midst of the rage for postmodernism which had reduced the role of history in architecture to that of a superficial iconographic tool. Moneo's interest in the history of architecture can better be compared to Kahn's than to that of his contemporaries. For both it was the result of a classical education and exposure to classical architecture in Italy and Greece. Moneo, like Kahn, was convinced that architecture could only be understood by following its evolution through history. Unlike Kahn, he did not look at history to recover the fundamental meaning of form through memory. Instead, he viewed history as indispensable for identifying the theories of architecture that provide the principles that form the basis of construction.[73] History and theory move with the passing of time:

> In acknowledging that in all architecture there is an implicit ideology that responds to a historical situation, the theoretical aspects that interest us are those that we characterize as purely architectural, those in which the architect finds the necessary support to justify the formal decisions that the practice of his profession needs.[74]

He used history to understand the evolution of modern architecture and to trace his own place in the historical panorama. During his stay in Rome, Moneo had followed the discussions at the University of Rome that advocated the radical reform of architectural education. History was regarded as the subject needed to achieve the desired result of that reform. Moneo also heard Zevi's inaugural talk in the fall of 1963 at the University of Rome, advocating an operative approach to history and

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[71] Ibid.

[72] Rafael Moneo, "Padre común," *Arquitecturas-bis* 41-42 (January - June 1982): 50.

[73] Moneo, *Programas de Curso y Ejercicios de Examen*, pp. 11-12.

[74] Ibid., p. 12.

criticism that would make the lessons of modern architecture accessible to designers.[75] Inspired by Zevi's approach to history, Moneo wrote in 1964 that history allows the architect to understand architecture, first "as a cultural product that precedes his schemes and abstractions and then as a solid product."[76] "The architectural act," he declared, " cannot be reduced merely to solving problems of a technical nature." Understanding the architectural project involved determining its place in the overall cultural production. Taken together the accumulated knowledge can then be used to formulate a theory of practice.

In the early 1960s most of Moneo's Italian contemporaries were teaching in universities and, in addition to building, they had already published on a range of topics: Carlo Aymonino had written on Roman urbanism, Paolo Portoghesi on Bernando Vittone; Gregotti and Rossi were both involved in studies of architecture in the city. Moneo's first article written in Rome was on the history of Roman urbanization,[77] a study inspired by his contact with Aymonino and a book on the urban history of Rome by Italo Insolera called *Roma Moderna* (Turin: Einaudi, 1962). From this article sprang his studies in the late 1960s on the urban development of Madrid,[78] which helped him gain perspective on how to approach his commissions in Madrid and Logroño in the early 1970s.

Moneo had met Tafuri in Rome at the sessions at the Palazzo Taverna in the early 1960s and had followed his career ever since. Although only two years older than Moneo, Tafuri was already teaching architectural history at the University of Rome. His theories opposing operative history were influential in the Italian architectural community and shaped its understanding of the role of history in

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[75] Bruno Zevi, "History as a Method of Teaching Architecture," revised version published in *The History, Theory and Criticism of Architecture*, ed. Marcus Whiffen (Cambridge, Mass: MIT Press, 1965).

[76] Rafael Moneo, "Sobre un intento de reforma didáctica," *Arquitectura* 61 (January 1964): 44.

[77] Rafael Moneo, "Notas sobre el desarrollo urbanístico de Roma en los últimos cien años," *Hogar Y Arquitectura* 50 (1964): 35.

[78] Rafael Moneo, "Alfonso XII. Notas a un desarrollo," *Arquitectura* 100 (February-April 1967): 12-17; "Madrid. Los últimos veinticinco años: 1940-65," *Información Comercial Española* no 4021 (Madrid, 1967); "El desarrollo urbano de Madrid en los años setenta," *Cuadernos para el dialogo* (Madrid,

architecture. Under his influence, the history of architecture was converted into something vital and operative. Tafuri's early writings on Ludovico Quaroni and his *Architecture of Humanism* and *Theory* and *History of Architecture* were crucial for the formation of the generation of the 1960s in nurturing the conviction that "professional practice could also be informed by a focus on ideological issues."[79] Moneo and Tafuri met again in the mid-1970s in New York, after Tafuri's work had become known in the United States, where his books, *Project and Utopia* and later *The Sphere and the Labyrinth* had become required reading in schools of architecture all over the country.[80]

Moneo's essay on Bernardo Vittone,[81] an Italian architect from Turin who lived in the late 1700s, sprang from his visit to an exposition on the Piedmontese Baroque in Turin in 1963. In this essay Moneo advocated studying the history of architecture through individual careers and events, and made clear his preference for the post-Baroque of the late 18th century, an attraction that may have arisen from his belief that contemporary architecture after the Second World War faced many of the same problems. The post-Baroque period had been full of mannerisms and inconsistencies that raised a host of different questions about the works of its architects on both the theoretical and methodological level. Skepticism over the dominant architecture's dogmatism and orthodoxies, the failure of the architectural project to cover the needs of the society, and an interest in the study of history were only some of the more obvious similarities.

Moneo's interest in Vittone, Durand, Soane, and Piranesi centered on the understanding of their architecture as a cultural product that was the outcome of the architect's own intervention rather than the imposition of a certain zeitgeist expressed by a specific language or style. Moneo's understanding of history derived from a phenomenological interpretation of how architecture is produced rather than a

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[79] Rafael Moneo, "Architecture, Critics, History," Third Manfredo Tafuri Lecture, *Casabella* 653, February 1998, p. 47.

[80] Ibid., p. 47.

[81] Rafael Moneo, "Un arquitecto de Setecientos: Bernardo Vittone," *Nueva Forma* 13 (February 1967): 38-43.

formalist approach that explains architecture in terms of the classical tradition of the history of art that privileges typological classifications. According to Moneo, the architect is fully immersed in the immediate reality of the construction of architecture, but it is only through knowledge of history and the theories of architecture that he is able to confront the immediate, the circumstantial and to reinvent architecture.

Vittone bore a fundamental resemblance to Moneo in his approach to architecture: he, too, believed that architecture was created through the transformation of structure into form. Vittone was formed in Turin, apprenticed to Guarini and Juvarra, both Baroque architects, though of different orientations. Guarini taught Vittone to appreciate a technical vision of space based on geometrical rigor that proposed a methodological rather than a formal alternative. Juvarra–a talented and intuitive architect educated in Baroque eclecticism–taught him the expressive possibilities of space. Moneo was attracted by Vittone's reluctance to follow neo-classicism–the trend of the time–but even more by his ability to take his experience with his masters and use it to transform structure into form without having to resort to a predetermined formal vocabulary. Moneo was also influenced by the prevailing trend of the discipline to develop a theory of architecture based on scientific rigor; he understood Vittone's work as using a method close to scientific investigation that superseded any superficial formalism.

Moneo's subsequent history essays–his forewords to the Spanish editions of Emil Kaufmann's book, translated under the title *La arquitectura de la Ilustración,*[82] in 1974, and of Durand's under the title *Compedio de Lecciones de Arquitectura*[83] in

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[82] Rafael Moneo, "Prólogo," to the Spanish translation of Emil Kaufmann, *Architecture in the Age of Reason: Baroque and Post-Baroque in England, Italy and France* (Cambridge, Mass.: Harvard University Press, 1955), under the title *La arquitectura de la Ilustración: Barroco y Postbarroco en Inglaterra, Italia y Francia* (Barcelona: Gustavo Gili S.A., 1974), pp. vii-xxv. (Kaufmann's book was a required text for the Rossian group in the 1960s, just as Wittkower's *Architecture of Humanism* was for the Smithsons in the 1950s.)

[83] "Prólogo" to the Spanish edition of J. N. Durand's Precis de Leçons d' Architecture données a l' École Polytechnique (Paris, 1802-1805), translated under the title *Compedio de lecciones de arquitectura.*

1981, and his article on Sir John Soane, "4 Citas/4 Notas," in *Arquitecturas- bis* published in 1981, testified to the influence the architects of the post-Baroque period had on the consolidation of his theory of practice. Moneo's interest in Kaufmann sprang from the fact that he was the first modern architectural historian to trace the origin of modern architecture back to the architects of the 18th-century Enlightenment. However, under the influence of Tafuri, Moneo criticized Kaufmann for offering a formalistic analysis with no reference to ideology in his account of the passage from Baroque to Neoclassicism, just as Burckhardt, Wölfflin, Riegl and later Wittkower had written on the Renaissance and Baroque. Moneo argued that this approach did not allow Kaufmann to appreciate Sir John Soane's critique of the prevailing neoclassicism offered in his work. Instead, Kaufmann regarded Soane's architecture as eclecticism stuck in the past. To Emil Kaufman's criticism that Soane's work lacked originality and was camouflaged by "rented clothes," Moneo responded that Soane's deep knowledge of history made him "a post-neoclassic, who perhaps sensed the limitations of the manner and sought a more flexible way out."[84]

Durand, Boullée's student and collaborator, had answered Napoleon's call to institutionalize the revolutionary process after the fall of the ancien regime in France, and was the first to systematize and record the knowledge of the architects of the Enlightenment in his treatises. Moneo took up Durand's cause in the early 1980s to rectify the misconception that Durand was interested only in the typological classification of works. Durand formulated his method of composing elements in the name of reason and listed as architecture's utilitarian functions economy, simplicity, regularity, solidity, and symmetry. Although he derived his elements (columns, pilasters, architraves, domes, etc) from history, he rejected old treatises that privileged the permanence of form (permanence is implicit in the idea of type) to invent an architecture that was founded on the program and its variations. With the rise of the new techniques and compositional methods, Durand seemed obsolete. However, Moneo argued that the value of Durand's *Précis* rested more on innovations in his

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[84] Rafael Moneo, "4 Citas/4 Notas," *Arquitecturas-bis* 38-39 (July-October 1981): 46.

thinking than on his formal proposals as they tend to be perceived today.

In Spain Moneo was esteemed as an educator with a profound knowledge of history. In addition to his forewords to Kaufmann and Durand, in 1985 he had contributed a foreword to the Spanish translation of Joseph Rykwert's book, *The Idea of the City: Anthropology of Urban Form in the Ancient World*, and in 1986 another to Carlos Sambricio's *Arquitectura Española de la Ilustración*. A decade later, he wrote a couple of essays on Tafuri's contribution to contemporary architectural historiography and an essay on "Juan de Herrera and the 'Discourse of the Cubic Figure,' the Lonja of Seville as Cubic Element" which was published in the book, *Form, Modernism and History*, published by the Harvard University Press in 1996 in honor of the architectural historian Eduard Sekler.

Durability, specificity, time and place are the notions that have remained after his critical positioning through the rise and fall of trends and fads over the first 25 years of Moneo's career to become the foundation of his architecture in the 1990s. Moneo has always sought his sources for inspiration or reflection in both contemporary architecture and history and especially in the lives and works of its favored architects. His teaching assignments and uninterrupted commitment to academia and the discipline have allowed him to formalize his eclectic intellectual curiosity into a group of didactic essays and articles that are essential to understanding his built work. At a time when questions of authorship, agency, and the object are strongly contested, Moneo keeps architecture to its essence: the reality of its construction. Attentive to, but mainly skeptical of, current trends, when examined critically under the light of history, his attempts to formulate a prescriptive formal theory were effaced by the distinct directions–the specificity, as he calls it–of his architectural projects in the following years. Teaching and academia kept him abreast of new trends. But his built work remains the essential production by which to confirm or contest his beliefs in the light of history.

III. The Building as a Reflection of Its Circumstance

By proceeding chronologically from one project to the next, the evolution both of Moneo's architectural practice and of his theory of how architecture should be practiced can be traced. Of the eight Spanish projects that I have chosen to examine, seven were built and one was a competition project, a ratio that does not compare to the 28 built projects to 29 competition entries that Moneo produced in his studio before 1990. However, of the eight first prizes only one turned into a commission, so the 7:1 ratio is representative of Moneo's architectural production before 1990.

Moneo resists enclosing his work into a single theory of design. He believes that design rules should be redefined each time, based on each project's circumstances: both the actual circumstances–the site, context, materials, and techniques–and the artificial circumstances–history, memory, tradition, and critical positioning in the current architectural culture. The actual circumstances are studied here as they are revealed in the project from conception to drawing to building. The artificial circumstances are uncovered by studying his *memorias*, that is, the texts he writes to accompany each project, and the critical essays he wrote around the time the project was being realized.

In the early years Moneo only wrote *memorias* to accompany his competition entries, but starting with the Urumea building he extended the practice to his built projects. The interest Moneo's buildings provoked in the architectural press and the difficulty his critics had in placing his work within a particular cultural and stylistic category made his habit of accompanying each project with a *memoria* particularly useful habit for the historian. Most of the *memorias* were published with the projects in architectural magazines. In them, he set down the ideas and decisions that lay behind each step in a given project. They explain tactical moves and design techniques and serve as explanatory texts for the final outcome. They also include critical comments on contemporary architecture

generally and thereby contribute to establishing the place their creator holds in the architectural culture. Those projects that became controversial have *memoria* whose explanations assume a somewhat defensive tone. Because the *memorias* represent Moneo's intentions in the design of his projects, they are necessarily the starting point for any analysis of his projects and buildings; here they are set against previous readings by historians and critics.

The first seven projects to be discussed are the School in Tudela (designed, 1966; built 1969-71), the Gómez-Acebo House in Moraleja, Madrid (1966-68), the Housing in Urumea, San Sebastián (1969-73), the Extension of the Headquarters of Bankinter, Madrid (designed, 1972-74; built, 1975-77), the Town Hall of Logroño (designed 1973-75; built 1976-81), the Extension of Headquarters of the Banco de España, Madrid, (competition, 1st prize, 1979) and the National Museum of Roman Art, Mérida (1980-85). They are programmatic in that Moneo experimented with synthesizing the actual and artificial circumstance of each project in order to consolidate his theory of how structure generates form. The creation of form cannot be separated from the material that constructs it. The Previsión Española, Seville (1983-88) closes the first set of Spanish projects. It complements the analysis of the Mérida museum in that it addresses a similar design problem using the same design mechanism. Until the Mérida museum Moneo insisted in his *memorias* that his experimentation invented the form through the invention of the construction. In Previsión Española he extended his experiment on inventing form through the invention of construction to the texture of the façade.

School in Tudela (designed 1966, constructed, 1969-71)

In the primary school in Tudela, Navarra, one of the northernmost provinces of Spain, Moneo reworked the school type, adjusting it to its site and location on the plan. The plan was based on the repetition of the classroom size (12m x 8 m). The classrooms facing towards the schoolyard could take advantage of their southern orientation, which was on their shortest side. Instead of organizing the classrooms with the longest side facing the southern façade, Moneo turned the classroom on the vertical to allow more classrooms to face south. He introduced semi-cylindrical lightwells that filtered indirect light into the classrooms and created a space within a space that animated the interior corridors (figs. 21, 23). The corridor was not just for circulation; it functioned as an indoor playground and public space–a concept he had used in his 1961 competition entry for a school in Soria.

The governing principles, such as context, relation between interior and exterior, and spatial effects, were taken from his studies of Gardella's house on the Zattere in Venice (fig. 24), Corbusier's Villa Savoye, and Wright's organic structures filtered through the lens of modern Scandinavian and Italian architecture. The Gardella house was the source for the façade treatment. Gardella had used elements from anonymous Venetian architecture to avoid stylization. Moneo's visit to it had resulted in an article in 1964 in which he praised Gardella for using the context–the scale and height of the surrounding buildings, the continuity of the street façade, and the materials such as exposed brick in keeping with the general architectural tone of the Venetian background, not only in his literal use of scale, forms, and materials, but also in the formal content and language that, taken together, the elements produced.[1] The design of the building was based on the dialectic between the street outside and a modernist

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[1] Rafael Moneo, "Una obra de Ignacio Gardella," *Arquitectura* 71 (November 1964): 44-45.

composition of the elements within. Gardella epitomized the critique of the modern in this Italian paradigm of the 1950s. In his design for the school, Moneo established a similar technique to address the exterior volume of the building in accordance with the city scale. The school's two stories made it the same height as the adjacent buildings; its revetment used traditional materials; its low-pitched, wide, tiled roof and its adherence to the street line followed the practice of a traditional building (fig. 22).

In the school Moneo might have viewed the masters through the lens of the Italian critique, but it was his Scandinavian experience that had given him the synthetic skills needed to complete the design. In Asplund's City Hall in Gotheburg (fig. 25), Moneo had noted the stark contrast between the neutral skin of the building and its highly elaborated plan and section: "The spatial richness of the hall was completely foreign to the contained rationalism of the facade which was designed to complement the old City Hall free of any stylistic reference."[2]

Asplund's town hall was an inspiration not for its language as a total modern building, but for its two contrasting and distinct languages. In the Tudela school the enclosure, respectful of its surrounding environment in its materiality and volumetric definition, contrasted with the interior definition of modernist spatial effects. In addition to the ramp, which was the main vertical connection, and the cylindrical skylights that brought indirect light into the heart of the structure, the horizontal window bands of the façades, the steel rails of the sidewalks, and the grid were all elements borrowed from the modernist vocabulary. The classrooms facing the schoolyard had long bands of windows; the street façades were protected by the massive brick walls that formed a barrier against the noise of the city.

In the Tudela project Moneo's representational techniques were laid out to acknowledge the diverse and complementary dynamics between plan and elevation. He registered the architectural elements that supported the structure and

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[2] Ibid., p. 44.

spatial interior effects on the plan: bearing walls versus openings, corridor, cylinders/skylights, ramp. He used the elevation to visualize the revetment of the building and its texture through detailed drawing of materials: brick skin, mullioned windows, tiled roof. Moneo was already anticipating the final built product. The long corridors were sculpted by the vertical seriality of the half-cylindrical skylights on the plans. The horizontal façades were given texture by long bands of vertically layered bricks on the elevations (figs. 21, 22).

From the Tudela school project sprang the national competition entry for an elementary school building appropriate for both mountainous and coastal regions, for which Moneo won first prize. For the school in Tudela, Moneo had drawn a cut-axonometric; for the school competition he drew a front sectional perspective (fig. 26). Comparing the two, one can see how Moneo translated his architectural thinking to drawing according to the requirements of the project; one can also see the relevance of drawing to building. The cut-axonometric viewed from below focused on the materiality of the building by neglecting to provide a specific focal point. It is not the section that dominates the drawing, but the materiality of the building and the spatial effects that the intervention of architectural elements–the vertical, semi-cylindrical skylights, the horizontal bands of windows which were interrupted with vertical posts of brick–imposed on the main composition. The one-point perspective brought out the repetition in the program, the abstraction in the use of materials, and the spatial effects of the modernist plan and section.

The transition from the cut-axonometric to the one-point perspective indicates an adjustment of the drawing procedures from the more concrete to the more abstract: the idea was never detached from the reality of its representation in drawing.

The importance of this building in Moneo's career lies in the process of its design and the fusion of distinct ideas extracted from close examination and reflection on the paradigm, which reveals Moneo's thinking in the elaboration of a design mechanism tied to the specificity of the project rather than to universal

scientific methods, which rely on a-priori principles. The adjustment from the building commission to the competition project required a reductive method, which allowed the main idea to be expressed in the drawings through abstraction.

The school project at Tudela served as a critique of modernist functionalism in the recognition and celebration of the specificity of the project in introducing external factors, such as context, site, materials and spatial effects tied to an alternative modernism. It was the realization of what a school should be. The 1967 school competition project focused on the formal resolution of program. Moneo employed modernist elements inherent in the project and the competition–transparency, movement, abstraction, horizontality–to translate function into form. It was the elaboration of the idea of what a school could be. The interplay between the two schools is the interplay of contingency (necessity) and freedom. This interplay has remained characteristic of Moneo's buildings ever since.

Gómez-Acebo House in Moraleja, Madrid (1966-68)

In 1967 the Gómez-Acebo, an upper-class family related to Huarte–Oíza's client for the Torres Blancas apartments in Madrid–commissioned Moneo to build them a residence. The house was to be free-standing on a site in Moraleja, one of Madrid's most exclusive suburbs. It was designed from the inside out as a Palladian pavilion and from the outside in as two longitudinal façades. Its controlled volumetric unity was compensated by the investigation of generating space through movement inside and outside the house. One approaches the house frontally in the middle by car and then moves along the longitudinal façades from east to west (fig. 27, 28, 29). The first problem Moneo had to solve in the plan was how to connect the house to the city and the landscape and at the same time accommodate the automobile, just as earlier mansions had had to accommodate

horse and carriage: both considerations would affect the dimensions and place conditions on access to the house, and these in turn would influence everything else.[3] Earlier, Moneo had criticized Corbusier for raising the Villa Savoye above the ground so that it could possess its landscape without modifying its topography. Moneo, in contrast, signaled the presence of the man-made environment and assimilated the natural one into it. The house was not just a frame through which its inhabitants would look at the landscape; it was both a receiver and a distributor of its forces.

The Gómez-Acebo house sits on raised ground; it is pierced underneath to allow the car to pass discretely from front drive to back yard and turn around (figs. 27, 28); the effect is somewhat like a covered bridge and serves to separate the car from pedestrian movement, an idea he had admired in Amancio Williams's work (fig. 35).

The car drops the visitor underneath the house. Instead of designing a vertical access that would lead the visitor to the heart of the house, he separated the public from the private areas, thereby reworking Le Corbusier's theme in the Villa Savoye prototype of the *promenade architecturale* as a sacred ascendance. Moneo chose to make the visitor circumnavigate the house along its width and through an arcade. The change of level between the garden and the car entrance creates a side wall that directs the movement towards the entrance to the house on the east. That entrance is placed along its extended side, its width forcing the movement from one end to the other, from east to west, and inside the house, from the public zone to the private. The visitor walks up a few steps, crosses the entrance threshold, and then turns 180 degrees before walking up some more steps to enter the living area. Moneo's phenomenological critique of, or variation on, Le Corbusier's *promenade architecturale* retains the Greek temple as the source of the generated movement. Le Corbusier defined the sacred in the ascent to the Acropolis, i.e., in vertical movement; Moneo identified the sacred with the circumambulatory procession

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[3] Rafael Moneo, "Una visita a Poissy," *Arquitectura* 74 (February 1965): 38.

around the peristyle temple (fig. 32).

It is my belief that the Gómez-Acebo house layout (fig. 30) draws on the "generic" plan Mies van der Rohe made for the German Pavilion at the International Exposition in Barcelona in 1929. The pavilion, representing the canon of modern architecture, was used as a template to design the house (fig. 31). Its conversion into a house was effected through the incorporation of the program, use of materials, textures, and spatial effects. Movement between and along the two longitudinal structural walls coordinates the layout of the public areas (entrance hall, living room, dining room). The level changes on the floor define programmatic functions of the house and introduce scale into the Miesian generic plan. The use of a horizontal band of windows was part of this process of enriching visual and spatial perceptions.

The Gómez-Acebo house also alludes to Wright's Usonian houses. Although Wright used a different structural system, Moneo was intrigued by the ideas expressed in their layout: in Wright's words, when the layout is defined, "the building became a creation of interior space in light. And as this sense of the interior space as the reality of the building began to work, walls as walls fell away."[4] Moneo broke the rigid separation of wall and ceiling planes by designing a complex space in the living/recreational areas of the house with a beamed ceiling, three-dimensional walls with recesses and extrusions that incorporated window and door heights, and continuous planar surfaces whose restless movement was countered by a network of stairs and openings. Space was woven into both vertical and horizontal dimensions.

The Gómez-Acebo house can also be compared with the Usonian houses in its clarity of organization of the different areas according to their function (sleeping, living, and service areas) and for the use of the diagonal planning that orients the house to its manicured landscape (cf. the Herbert Jacobs house in

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[4] Edgar Kaufmann, Jr., ed., *An American Architecture: Frank Lloyd Wright.* (New York: Horizon Press, 1955), pp. 217-18.

Madison, Wisconsin, 1936-37). Walking through the house, openings and views are never frontal (fig. 36). The usual emphasis on frontal views in public areas is here displaced to reinforce diagonal access to, and views of, the main southwest terrace garden, as well as the northern access and views to a smaller garden from the bedroom area corridor. Moneo used Wright's ideas of organic architecture to humanize Mies's diagrammatic plan in space and offer his own interpretation of the organic.

Moneo's insistence on refining the interior spatial effects on the plan rather than the section is indicated by the fact that he used a uniform tiled roof to cover the entire house. As in the Tudela school, so in the Gómez-Acebo house Moneo experimented with architectural elements and movement which are best seen on the plan. The exposed concrete beams, a direct reference to a wooden-beam roof placed on the transversal, support the roof on the load-bearing walls (fig. 33, 36). The construction of the beamed ceiling out of prefabricated pieces of concrete was a technique Moneo had brought from Utzon's office.[5] The static succession of the beams on the transversal is meant to counterbalance the fluidity of movement. The beamed ceiling was a representational device; it encased nature in the building to break away from any notion of a generic space.

The façades combine modernist with classical and traditional elements. The concrete pillars dressed in brick represent an ambivalent play between rural post-and-beam construction in wood and a Doric temple (figs. 33, 37). The translation of the roof beams from wood to concrete and the peripheral columns from concrete to brick was inspired by Moneo's studies of the Greek temple and vernacular Roman architecture. He espoused the theory that, although the Greek temple had its formal and structural roots in the use of wood, it was in its gradual transformation from wood to stone to marble that it had reached perfection. Perfection was measured by bringing order, harmony, and beauty out of chaos, rather than in fixing certain proportions or in resolving formal problems with well-

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[5] From interview with Moneo at this Madrid office on January 8, 2001.

chosen construction techniques.[6] In the Greek temple the structure is defined from the roof downwards rather than from the columns. In the Gómez-Acebo house the brick skin is continued in the retaining walls of the gardens. The colonnade encloses the building from south to west to north, uniting house and grounds.

In the house, Moneo contrasted Mies's generic, abstract space with Wright's organic space to create a revised modernist space that resulted from the design process. Mies's generic space defined an architecture where man lived detached from nature. His architecture reflected an urban experience. Wright's organic space drew its strength from its approximation to nature. The architect was the mediator between nature and architecture; man would live in nature.

Moneo explored the notion of the organic as an inherent quality of the building, not as borrowed from nature, a notion he had discovered in Aalto's architecture: "Architecture derives from within rather than from its context." The organic was the result of the design process. The tracing of the plan, section, and elevations, the use of materials, textures, and movement had the capacity to redefine man's relationship with nature. Moneo saw architecture as an "organism" in which the natural and the arbitrary meet to become an organized, structured reality, resulting from what was a controlled, methodical, intellectual contemplation of the possibilities of architecture itself. The design process is a single-minded exercise of an educated revisionist; the house is the result of a dialogue between himself and the masters.

Moneo appreciated Mies's capacity to distill everything down to its simplest form, but objected to his extremes of sanitized, almost mechanical purity. He appreciated Wright's ability to connect the building back to nature, but objected to his idea of the literal invasion of nature. The creative process should focus on the man-made environment, since man must live humanly with nature. Was the merging of Mies and Wright, the two unquestionable masters of 20th-

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[6] "The architect short of a constructive motive ... uses his previous constructive experience in wood"; Rafael Moneo, "Notas sobre la arquitectura griega," *Arquitectura* 59 (July-Aug 1965): 72.

century modern architecture, but so distant from each other, a successful enterprise in the Gómez-Acebo house? Mies distilled the essence of things in his representation or vision of city life in built form; Wright relied on the richness of material to reproduce nature within nature. In a sense Moneo dressed Mies in Wright's clothing to take him from the city lights to the countryside. The resulting combination is reminiscent of the synthetic procedures Moneo had observed in Oíza's design for the Torres Blancas apartments. To Oíza's expressionist results Moneo responded with a moderate modernism absorbed by attention to materials, texture and construction.

Housing in Urumea, San Sebastián (1969-73)

In 1969 Moneo was asked by the architects Marquet, Unzurrunzaga, and Zulaica, who were based in San Sebastián, to redesign the original plans for a co-operative apartment building on a half-block along the banks of the Urumea river in a part of San Sebastián, on the northern coast of Spain, that was built during the nineteenth century. Moneo redistributed the apartment layouts, condensing the façades on the Urumea river to redesign the project independently from the original version. According to the *memoria*, for its design, Moneo decided to use a typological interpretation of late-19th-century housing in order to maintain a unified context and provide a harmonious presence in the city while respecting the developers' program. Determining how to achieve this unity brought up questions of type and style. The block was to be designed in a generalized way, relating each decision to its structure and the logic of construction rather than to any stylistic unity or mimetism with the city[7] (figs. 39, 41).

The theoretical framework behind the proposal–as presented in the

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[7] Javier Marquet, Rafael Moneo, Javier Unzurrunzaga, and Luis Zulaica, "Edificio 'Urumea" en San Sebastián," *Hogar y Arquitectura* 98 (January-February 1972): 98-102.

memoria–was formulated both as a critique of the earlier 20th-century superblock housing and as a validation of the rationalist housing designs of Madrid in the 1930s. The superblock had been introduced in Spain in the thirties by an organization that called itself the Group of Spanish Artists and Technicians for the Progress of Contemporary Architecture (GATEPAC), headed by José Luis Sert, with ties to CIAM (Congrès Internationaux des Architectes Modernes). It was established to ensure standardization, economy of construction, and proper hygiene. The superblock was a free-floating building. The notion of the elevated corridor was introduced to provide horizontal movement on each floor. The design for the project rejected earlier housing developments and ignored city form and urban unity. The prototypes for the project were 19th-century apartment blocks in Madrid and earlier 20th-century structures such as Secundino Zuazo's Casa de las Flores of 1931 (fig. 40), apartment buildings by Coderch, an architect from Barcelona of the 1950s who promoted Mediterranean rationalism, and Owen Williams's Pioneer Health Center in London (1933-35; fig. 42).

The design for the Casa de las Flores was postulated on the idea that the city consisted of many different parts. The building was conceived as a neutral block–a type that responded to the 19th-century urban plan of Madrid–the Ensanche. Modernist rationalist housing was not a viable solution for the existing Ensanche. Zuazo had responded to the Ensanche by designing two parallel blocks and leaving an open space/garden in-between. His design respected the perimetric continuity and the treatment of the corner, while offering a more spacious alternative. His Casa de las Flores was designed with the idea that the apartments should be made independent of each other, each built around its own patio, with shared areas around the elevators and staircases. As many units could be built as were needed to complete the block. This type of apartment building survived the upheavals of the modern movement and is still being built in Madrid.

Although the plan shows an affinity to the 19th-century type of housing, the Urumea building is not merely a variation on an existing type. By designing a

mixed-use building with a dense formal repertory and texture on its façades, Moneo made drastic changes in order to incorporate contemporary methods of construction and to challenge the neutrality of the traditional apartment building. The plan was based on the traditional apartment block with service patios that guaranteed the independence and the privacy of each tenant, but the units were then placed around a central patio. The introduction of a mezzanine level for the apartment lobbies organized on a linear corridor with views to the river allowed the incorporation of commercial and office space in the building at the ground level (fig. 43).

Instead of laying out the apartments separately and in conjunction with the plan, Moneo used the vertical connections to unite the plan. The main entrance elevator to each apartment was separated from the service-area staircases, thus interlocking the apartments between the service and main entrance axes, a layout borrowed from Coderch's apartment buildings of the 1950s. The building was accessible from all parts of the city. The arcade at the back opened up more commercial space; ramps led to a two-level garage below and to the various entrance lobbies on the mezzanine.

To avoid a uniform, schematic, even monumental solution, Moneo and his collaborators offered a complex solution of plans, elevations, and texture reminiscent of many architectures, borrowing from British and Spanish rational modernism of the 1930s and postwar Spanish expressionism. The façades are consistent with the idea of a plan that would enter into a formal dialectic with the city: the distinction of the corner and the episodic compositional character of the façade renounces mimetism and attachment to a specific style, while respecting the scale and character of the context. The façade is a playful variation on the composition that allowed early 20th-century Mediterranean rationalism, as exemplified by Zuazo's Casa de las Flores, to converse with postwar organic Spanish expressionism. The compositional scheme of the façade that distinguishes the linearity of the corner from the undulating middle part was inspired by the

Owen William's Health Center. The treatment of the corner that produces a pronounced transparency was inspired by Zuazo's corner treatment of the de las Flores apartments. The undulating façade owes its inspiration to Oíza's Torres Blancas apartments (1968), with its continuous bands of windows in wooden frames, as well as to British bow windows that allow for wide views over the river and the sea. The balcony railing is a tribute to the yacht club of San Sebastián (fig. 44) designed in 1927 by José Manuel Aizpurúa and Joaquin Labayen, both modern architects connected with the GATEPAC. The materials used were sandstone, concrete, cedar, and glazed tile on the roof. The materiality of the new building was treated in such a way that it connected the building to these earlier structures.

The apartment building as a block is a type that shaped the 19th-century city in Spain. Housing has also been the main building type for which the modern movement tried to provide a solution. The Spanish modern movement reworked the notion of housing in its programmatic requirements decontextualizing it from urban form in the 1930s. Moneo, aspiring to transform the type, summarized a century-long experience by introducing a mixed-use block considerate of type, program, context and construction. In this synthesis of earlier types, Moneo recovered the validity of the street line as an urban experience; replaced the free-floating modernist apartment building with a mixed-use building as a collective experience; and rejecting the modernist segregation of functions and the independent entrances to the residences as an individual experience and a critique of the modernist corridor.

Extension of the Headquarters of Bankinter, Madrid (1972-77)

Moneo designed the new headquarters for Bankinter with Ramón Bescós, an architect who worked for the city and maintained a private practice on the side. The commission was given to them by Javier Martínez de la Hidalga, a civil engineer who was in charge of the Banco de Santander's real estate. Because it

introduced a new way of thinking about urban architecture, the Bankinter headquarters extension had a tremendous impact on both Moneo's career and the architectural community of Spain. The architectural press of the time claimed that with Bankinter the so-called School of Madrid had overcome the impasse of its "modern adventure" at the end of the 1960s.[8] Bankinter thus made an important contribution to the history of modernism, in its success at blending the unity of the vanishing 19th-century city with the constructive rigor and abstract formalization of the modernist project. Bankinter brought significant changes to both the formal/conceptual level and the representational means of designing the project in Moneo's practice.

At the formal level, Moneo addressed the role of architecture in the city by exploring the effects of the city on the site and the building and the impact of existing buildings on a new one. Moneo used modern architecture as "working material" to establish a dialogue with the old. At the methodological level he introduced new representational techniques, such as photomontage, working and presentation models (figs 56, 60), to study the relationship of the new building to the existing ones and to the city. These new considerations are reflected in the plans, elevations, and sections.

The site lay along the most prominent part of the Paseo de la Castellana, Madrid's principal boulevard that cuts across the city on the north-south axis (fig. 45). Development of the Paseo de la Castellana in the 1950s and 1960s had been so rapid that the city and its citizens had become concerned. After a series of unsuccessful master plans, the city allowed developers to tear down 19th-century buildings and build speculative structures. Moneo, a strong advocate of preserving the character of the city, argued in the pages of *Hogar y Arquitectura* that any new building on the Paseo de la Castellana ought to create a sense of civic life in its provision of open spaces accessible to the public.[9]

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[8] Antón Capitel, "Apuntes sobre la obra de Rafael Moneo," *Arquitectura* 236 (May-June 1982): 14.
[9] Rafael Moneo, "Madrid. Los últimos veinticinco años: 1940-1965,"*Hogar y Arquitectura* 75 (March-April 1968): 46-59.

In conceptualizing the building Moneo reacted to the prevailing trend in office-building design in the early 1970s, exemplified by the Bankunión building designed by Corrales and Molezún directly across the street (competition: 1970, construction: 1972-75; fig. 46) and the Banco de Bilbao by Javier Sáenz de Oíza (competition: 1971, construction:1972-79; fig. 47), the building has its precedent in Wright's S. C. Johnson & Son, Inc. Research Laboratory Tower in Racine, Wisconsin, 1943-50), and the Trade Buildings by José Antonio Coderch in Barcelona (1969), which made use of the latest technologies, glass, and mechanical controls. The architects of Bankinter discarded this hi-tech modernist aesthetic in favor of an alternative that would harmonize with what already existed.

In the *memoria* Moneo explains that the building's layout is defined by the site conditions. The existing neoclassical building–the *palacete* of the Marqués de Mudela designed by the architect Alvarez Capra in the late 19th-century, had to be kept; the architects decided to conserve the neoclassical *palacete* and locate the new building behind it (fig. 48). Bankinter is designed "as a background to the *palacete*, a pure vertical plane, a facade."[10] Access to the site is on a side street, called the Marqués de Riscal, between the two buildings. The new entrance was once the exit for the horse carriages, and later cars, serving the *palacete*.

The addition was conceived in two sketches drawn from the main entrance to the site. It shows a tangential, perspectival view of the *palacete* and the proposed addition (fig. 49). Moneo showed the relationships in heights and open versus built-up spaces, and visualized the new building's facade, which would run parallel to the *palacete* and the Paseo de la Castellana. The existing building behind the site, whose window views could not be obstructed, and the oblique line of the site on Marqués de Riscal street, defined the "nose," i.e., the intersection on the main façade of the new building parallel to the *palacete* and the perpendicular

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[10] Rafael Moneo, "Bankinter," *Bankinter 1972-1977*, ed. Enrique Grannell, Archivos de

on the oblique line of the site (fig. 50).

A side access to the site tangential to both the existing and the new building is reminiscent of the entrance to the Acropolis from the Propylaeon. Moneo had learned from the Greeks on his early trip to Greece, enriched by his readings of Le Corbusier's analysis and sketches of the Acropolis via Choisy, that an irregular access to a site–as opposed to the Renaissance urbanistic tradition of the frontal axis that produces strong symmetries–helps distinguish the building as an object and reinforces the singularity of its position.[11] The "nose" became the primary element to reinforce the conception of a tangential close vision of the new building; Bankinter's main façade, which was parallel to the *palacete*, became the primary element to establish the frontal vision from afar. The architectural elements came together to establish autonomy for both buildings; they could exist as equals. The design of the façade oriented the new building toward La Castellana so that it would not be compromised by the old one.

Moneo always looked closely at the buildings around a site to find appropriate stylistic references or solutions for his addition. His critics have associated Bankinter's main façade with several prominent buildings of this period. Closer to home, it resembles Francisco de Asis Cabrero's and Rafael Aburto's National Union Delegation Building (Casa de los Sindicatos, which won a competition in 1949; fig. 1) that rises in front of the Prado on the Paseo de la Castellana a few blocks south of Bankinter. When Juan Daniel Fullaondo, a Madrid architect who was Moneo's contemporary and the editor of the journal *Nueva Forma*, asked Moneo about the resemblance, Moneo responded, "Aburto and Cabrero? Why not? I take that as a compliment."[12]

The Casa de los Sindicatos is usually associated with Franco's regime on account of its monumentality and 1940s Mediterranean rationalist style. Antón

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Arquitectura Española siglo XX (Almeria: Colegio de Arquitectos de Almeria, 1994), pp. 11-12.
[11] Ibid., p. 78.

Capitel argued that it was this building that established the model for the modernization of official architecture in postwar Madrid. Cabrero had traveled to to Italy in 1942 where he met Adalberto Libera and saw the construction of the E.U.R. building. In the light of Italian neo-rationalism, the Casa de los Sindicatos was explained by architectural critics in Madrid of the 1970s as an ideologically neutral container appreciated for its ahistorical qualities and as an adequate answer to its urban context. Moneo in his uncanny way, used the reference as his homage to the city's prewar modernism by removing any sign of the Sindicatos's monumentality. The monumental character of the façade of the Casa de los Sindicatos is carried through in the cubic configuration of the building, whereas in Bankinter the façade "materializes in a pure foreshortening, a unique manifestation of depth"[13] in the creation of the "nose." This unique condition of the "nose" establishes the theme of asymmetry, which removes any possible reference to classical monumentality. In Bankinter Moneo provided an interpretative, active, modernist vision of the monumental, or the civic for that matter, instead of a passive one.

Moneo's critics have described Bankinter as a building rooted in the critique of modern architecture, referring to the repetitive character of the windows derived from Italian rationalism, especially Rossi; the treatment of the windows that alludes to Venturi's Mathematics Department Building at Yale University (1969-70; fig. 51), which was also an addition–this time to a group of collegiate-Gothic buildings (Moneo has the book of this competition on his library shelves); to its similarity to Sullivan's Wainwright building and the main façade of Asplund's Gotheburg Justice Building (1936; fig. 25).

Finally Frampton found the strongest influence on the design of Bankinter to be Stirling's Leicester Laboratories (1959-1963) by way of its triangular parti.

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[12] Juan Daniel Fullaondo, "Notas de sociedad," *Nueva Forma*, vol. 108 (January 1975):10.
[13] Ignaci de Solá-Morales, "The Modern Adventure of Spanish Architecture, 1940-1970," *Contemporary Spanish Architecture: An Eclectic Panorama.* (New York: Rizzoli, 1986), p. 12.

In the laboratories, however, Stirling gave prominence to the tower over the site, whereas Moneo differentiated between the site and the tower and gave them equal value.[14] Even if the association with Stirling seems obvious (Moneo used diagonals on the Logroño Town Hall in the same year and had studied Stirling's production carefully), one would still be tempted to assume that Moneo wanted to experiment with that particular geometry. He would never have introduced the diagonals without making sure that they would respond to the circumstances of the project. His formal decisions have always been full of allusions to the modernist project, but were never dissociated from the specifics of the project he is working on.

Moneo himself identifies Luigi Moretti's building on the via Dante in Milan (1949-56; fig. 52) as his source of inspiration rather than Stirling, however.[15] In fact, Bankinter was meant to be a critique on Stirling's formal approach. Moneo opposed the idea of using language to define form; it was the construction of its structure that would ultimately serve that purpose.

Although he does not reject all the references others have seen for Bankinter, Moneo was more attentive to the existing architecture on the site than he was to the prevailing trends of the time. The design of the new façade was meant to establish a dialogue and unity with the *palacete*'s façade. Its articulation, the thickness of the concrete reticular structure with its uniform double-brick coat, simulated the *palacete*'s solid stone walls. In fact, the brick wall was designed as a self-bearing wall, independent of the supporting concrete structure underneath, which he had used as an experiment in the strength and limitations of brick. The thickness of the brick wall is manifest in the sequence of the jambs (fig. 55). It is designed so that the mortar joint is concealed. The material is celebrated for the purity of its finishes and in its abstraction. The exposed brick is different in type and construction from that used for the *palacete* but similar in color.

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[14] Kenneth Frampton, "A propósito de Bankinter," in *Bankinter 1972-77*, p. 80.

[15] From my interview with Moneo in his Madrid office, January 8, 2001.

The wooden windows are embedded in the brick wall, concealing the frames. They are of the same dimensions as the top-floor windows of the *palacete,* which establishes a reversed but tripartite compositional rhythm, acknowledging the difference in scale between the buildings and the difference in the program at the entry and upper administrative levels. They are different in type but similar in architectonic scale (fig. 48).

At the upper administrative level, the change from two rows of windows to one row of elongated openings comprised of one large and two small windows with a spandrel in between (figs. 48, 54) produces windows whose proportions approximate the elongated windows of the *piano nobile* of the *palacete*. The change in the section of the structural concrete column between 1973 and 1974 (fig. 53) deepened the window sill and recessed the glass even further to create a deep-shadow effect and approximate the section of the window of the *palacete* (fig. 55).

The wall is not merely a façade or boundary. It is an interpretation of a 19th-century classical wall using modern techniques and combining modern with age-old materials. Moneo's source for the design of the thick wall could possibly have been Aalto's headquarters for the Enso Gutzeit company in Helsinki (1959-62) or Venturi's Mathematics Building. Aalto's building is a concrete structure covered with marble; Venturi's is a steel structure covered with brick. Moneo says that the use of concrete was "an accident"; he was not seeking purity of form through the use of materials as had the British Brutalists and Louis Kahn in the late 1960s. The use of brick in a public office building in fact produces a decidedly anti-Brutalist impression, a comfortable architecture that approximates the scale of a private residence.

The use of concrete made it easier to provide an alternative modernism, which left its imprint on the façade as a reticular, repetitive structure. The design of the main façade of the new building enhanced the space behind the *palacete* and acquired its own character as an envelope for the new building, not as the result of

a formal composition, but through its structure. The structure did not succumb to the form. Instead, the definition of structure allowed the definition of the form.

Ruiz Cabrero, Alfonso Valdés, and Kenneth Frampton, all of whom wrote about the Bankinter annex, concluded that Moneo's design was rooted in the Modern Movement, since he used collage as a design mechanism to incorporate all his "quotations." Valdés, himself an architect as well as a critic, who collaborated with the *Arquitectura* group, was the first to refer to borrowed elements as "quotations": "Moneo, at each point, uses the correct quotation; he chooses the most appropriate master, but each time he transforms the model to create a new mutation of it."[16] Cabrero, also an architect and critic who wrote for *Arquitectura*, saw Moneo as using modern architecture as "working material for the construction of form." Moneo was not inventing architecture: the value of the Bankinter lay in his knowing how to use a repertory which was considered valid. Moneo used materials, structure and construction as the unifying mechanisms for his formal and spatial quotations. The appearance of quotations and souvenirs was not the product of memory, but of history, from which he extracted the best model for each situation. He used modern architecture in the same way Renaissance architects used Roman ruins: as the linguistic background for the vocabulary that would identify their new architecture.[17]

Frampton noted that the entrance, which deviates from the frontality of the façade, and the T-windows above the entrance were reminiscent of Louis Kahn's work, but also showed Moneo's respect for the tradition of Mediterranean rationalism and Scandinavian classicism. The interior layout of the public areas alluded to Frank Lloyd Wright's Larkin building (1904) in its opening of a private building to the public realm, a practice Moneo learned from his first master, Javier Sáenz de Oíza. The ceilings of the offices and the use of brick for the envelope of

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[16] Alfonso Valdés, "Rafael Moneo: Retórica y Experimentalismo," *Arquitectura* 236 (May-June, 1982).
[17] Gabriel Ruiz Cabrero, "Sobre Bankinter o un americano en Madrid?," *Arquitectura* 208-209,

the building inclined towards the northern European romanticism of Alvar Aalto by way of his Danish mentor Jörn Utzon; the wood paneling was a reference to fin-de-siècle Vienna by way of Hoffmann or Loos.[18]

The distilled simplicity of Moneo's architecture hides considerable complexity. Even more intriguing than the visual quotations he uses in the construction of form is the way he assembles the puzzle to construct the form. To figure out how he does this is to understand the nature of his architectural thinking. The Bankinter building was initially to be the background for the *palacete*, establishing a "decisive contrast between the vertical plane of the projected building and the modest volume of the *palacete*."[19] It was meant to preserve the memory of the 19th-century city and to be a reprimand for its extensive destruction in the 1960s. While preserving its autonomy as a separate object, it was also to establish a link with modern architecture. These two intentions–the formal and urbanistic subordination to the *palacete* and separation from the neo-classical object in the use of modern vocabulary–may seem mutually exclusive. Moneo, however, incorporated the modernist project in the 19th-century city by using a dialectic between form and context that used structure as the coordinating mechanism.

Moneo used the context to locate the new building on the site and integrate it into the fabric of the city. He used modern architecture to avoid false stylistic associations and to regain a degree of freedom in the form and construction of the new building. The detailing of the structure and form of the main façade acted as the mediator to reconcile the old and the new with a modernist sensibility.

As a critique of modern architecture of the 1960s, the Bankinter was conceived as an anti-Brutalist building and a reaction against the modern mechanical, industrialized conception of futuristic architecture. It countered the

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(1977): 104-113.

[18] Kenneth Frampton, "A propósito de Bankinter," *Bankinter 1972-77*, p. 78.

[19] Moneo, "Bankinter," pp. 11-12.

exhibitionism of new technologies with the permanence of architecture built using proper materials and techniques, while retaining modernism in its formal aspects.

At the representational level, Moneo uses a site plan, model, and photomontage (fig. 56) in the preliminary phase: the plan layout reflected the program, and the model and photomontage helped him visualize the impact of the volume of the building on its surroundings. The uniformity of the façades reflected the type, and at this stage it indicated that the study was focused on resolving the mass of the building. The development of the ground-floor plan (fig. 57) governed the next phase of the design; the model and the axonometric (fig. 58) assisted in the elaboration of the façades and specific areas of the building.

The elaboration of the main lobby for circulation and the definition of spatial hierarchies imposed a change in the angle of the building's oblique line. Initially the line was parallel to the site line and perpendicular to the oblique back wall of the building. The change of angle allowed for the relocation of the central staircase from the main lobby to the side and the introduction of a mezzanine that faced the entrance. This was a fundamental change, as it established the needed frontality at the entrance to the bank for easy access to the back (figs. 59). The plan was still the regulator, but the section became instrumental at this phase of the design. The changes were imposed from the inside out; the design of the new building was acquiring a life of its own–autonomous and unsubmissive–dictating the principles of the site.

After the project was approved by the Colegio de Arquitectos in July 1973, the architects proceeded to the next phase of design–development of specific areas of the building: the entrance portico, the lobby, the patio that gave access to the basement, the staircase that gave access to the terraces, the curved wall that followed the ramp, and the openings on the façades that would lend specificity to the abstract volumes of the earlier model. A band of windows wrapped around the circular wall and a glass bridge connecting the new building with the *palacete* (fig. 58), which were the project's Stirlian elements, were eliminated as they were

considered formal elements. Moneo argued that "a linguistic approximation based on strict imitation was discarded in order to be able to establish a certain distance between the two buildings."[20] In the elimination of formal elements Moneo distilled the essence of a clear methodological understanding of the invention and construction of form.

Although in its conception Bankinter is attached to the history of its site, in theory it responds to Stirling via Moretti and Rossi via Venturi; it is a humanized, contextual version of Rossian neo-rationalism through the lens of Venturian complexity. Methodologically the elaboration of the project from photomontage to model privileges context to form; from plan to section to elevation privileges structure to form as language. Historians and critics have insisted on a formal reading of Moneo's Bankinter that attaches it to the modernist tradition. However, the history of Bankinter testifies to Moneo's uncanny ability to find originality in the subtle manipulation of existing architectures and methods of design. Bankinter is both a modern and a classical building at the same time.

Town Hall of Logroño (designed 1973-75; built 1976-81)

Moneo received the commission for the town hall of Logroño, a provincial capital in northern Spain, in 1973, a time of political unrest in the country which delayed construction. By the next year, democracy had been more or less established in Spain and the year after that, Franco died. Construction started in 1976, the year Moneo spent in the United States. The upheaval in Spain had also resulted in high inflation, and which meant that the building had to be built very cheaply.[21]

As a result of all these roadblocks, the project developed slowly. In 1973, Moneo was writing in the *memoria* that the concept of "generality" drove the design of the plan layout and the constructive elements, as well as assisted the

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[20] Ibid., p. 14.
[21] Conversation with Moneo, Cambridge, April 1998.

definition of the building's public character.[22] Moneo used the concept of generality to experiment with the social possibilities of a modern building. The town hall as a public building had to represent the cultural values of the new democratic state by projecting a feeling of openness, liberality, and modernity; it had to exert the appropriate degree of presence, provide accessibility, and establish the terms of democratic monumentality.

Moneo had already experimented with the design for a town hall when he participated in the international competition for the town hall of Amsterdam in 1968 for which he had received the 2nd prize (fig. 17). It served to reframe his ideas of a democratic building. Moneo wrote in the *memoria*:

> "The project is more about the definition of a structure than the design of a building; that's why we haven't looked for a symbolic building to represent authority. The structure was the urban grid which we wanted to preserve... Our wish was to recreate the city in the interior of the building; the town hall was to reflect the city."[23]

The idea of a town hall as an open public building led to the conception of a building that should be "the reflection of the city" in the town hall of Logroño as well:

> . . . This idea of an urban public building ... requires one to find the right degree of dignity without reverting to rhetoric and false monumentality. This dignity is acquired through its relation to the city. So long as the building makes sense to the city, it will not be an object. It will become a key part of the city, an authentic monument.[24]

There is an inherent inconsistency in this statement: how can a building "reflect the city" and at the same time become an "authentic monument." He solved the problem by the way he positioned the building on the site and in the formal qualities of the building itself.

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[22] Moneo, "El Ayuntamiento de Logroño,"*Arquitectura* 236 (May-June 1982): 20.
[23] Rafael Moneo, "Memoria," *Arquitectura* 124 (April 1969): 44.
[24] Moneo, "El Ayuntamiento de Logroño,"*Arquitectura* 236 (May-June 1982): 20.

The site was located on the border between the old part of the city and an area designated for the city's expansion; it was also the link between the city and the river. The building therefore had the larger task of tracing and reinforcing the lines that determined the city's expansion. By turning the building 45 degrees in relation to the site lines and city grid, Moneo tried both to restore the axis of the old part of the city that was aligned with the river and to reinforce the axis in the new part of the city that had been designated for its expansion (fig. 61).

From the very beginning Moneo was reluctant to deal with the architecture of the building until the question of scale had been resolved: the site was four times the size of a regular city block in that area and the quality of the existing architecture was quite poor.[25] The concept behind the design of the structure and form was that of "generality":

> The design sought this pretext of generality that would allow it to resolve not only the plan, but also details of construction; this generality, on the other hand, would contribute to giving the building its public character (as opposed to the private, the concrete, the specific), which is thought to be desirable for a building of its type.[26]

The square, the grid, the column, and the beam formed its syntax. The grid–dimensioned to accommodate the parking layout below–took care of the programmatic requirements with diagonals providing spatial effects that locked the three different parts of the city together by making the town hall its node or focal point.

The program had three components–an auditorium, administration offices, and public-reception areas–defined by the intersection of the two grids created by the cardinal position of the site and the diagonals and by the form derived from establishing local interventions on a uniform skeleton. The diagonals defined the relationship between open and closed space. They became the strongest element

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[25] Ibid., p. 22.
[26] Ibid., p. 24.

of intervention, reinforcing the idea of the non-objectivity of the building. The open space defined the town hall's main square. The building was defined by the residual space between the diagonals and the site lines. The open space was both a focal point and a transit place. It aspired to become a space of "civic and urban value," while encouraging movement through the square. The diagonals created a dynamic flow tangential to the main square that was to be counterposed by a colonnade and adjacent arcade (fig. 62).

Once the exterior geometry of the building was defined, the building was designed from the inside out. The architect's intention was to design "a permeable, accessible, easy building."[27] The directional flow of the diagonals towards the corner eliminated the possibility of a classical threshold and freed the architect from the need to create a formal language of semantic signs, such as an entrance, access to the different parts of the building, and canopies. All these elements supported the function and program of the building. The point at which the diagonals met retained an ambiguous character, as hierarchies of movement and direction were not established aside from the differentiation between the arcade and the colonnade. If one moved forward under the pilotis that connected the three buildings in the south-north axis, which was the natural direction, one headed out toward the river. One had to turn left or right to enter either of the two buildings facing the square (fig. 63).

The main entrance is on the left, which is the most unnatural turn to make. Once in the main lobby–conceived as an interior courtyard–the awkwardness of diagonal movement in the vastness of the outside receptacle and the ambiguity of the pilotis gives way to a spatial richness that invites the user to become part of a theatrical event reenacting a life scene. The town hall is a meeting point, a contemporary agora, a focal point for congregation and civic life. The lobby-courtyard joins the reticular frame of the balconies above the ascending recessed wall of the main staircase (fig. 64). The design of the main staircase from

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[27] Ibid., p. 22.

the lobby takes advantage of the triangular geometry to articulate the movement and change of scale.

On the right is the entrance to the administrative building. Its imposed geometry (a triangle) and building type (an office building) dictated an interior courtyard (fig. 65), which is designed with three different structural elements: circular free-standing columns reminiscent of a forest representing lost nature, the pillars of the ground floor arcades that introduce the human scale, and the post-and-beam structure around the patio reminiscent of the origin of architecture. As the building respected the height of the surrounding structures, space was tight so the patio was put below ground level to allow for more office space. Additional daylight comes from the skylights above. The change of levels animates its spatial effects. The entrance to the patio from the pilotis leads to an interior arcade, an intermediary space between the offices and the main patio. The arcade ends with a view of the main square at the other end of the patio. To support the roof Moneo introduced a series of free-standing columns. The interplay aimed at a syntactic hierarchy of space, which was finally suppressed by the horizontal concrete roof. If the intention was to complete the square in the building, the roof should have addressed the sky more forcefully. (Recently the municipality asked Moneo to propose an addition to the building. Moneo will suggest adding an extra recessed floor on top of the administrative building.)

The programmatic diversity between the two buildings creates a dialectic that is manifested in plan and section by the typology of their public areas – in one case the space that explodes upwards with the staircase (fig. 64), in the other the sunken patio (fig. 65). In elevation Moneo used the balcony, the arcade, and the colonnade as compositional elements to articulate the triangular geometry of the interiors.

The auditorium can be entered either from the first floor of the public building facing the square or from the side street at the back. The auditorium is a separate element quite foreign to the triangular geometry of the other two, but its wrapping in the same Salamanca stone unites the three buildings. It also reinforces

the weakness of the intersection of the buildings facing the square, however. Moneo argues that this building is a result of his admiration for Hejduk and the New York Five's work at the time.

The repetitive character of the main façades conceals the spatial richness of the interiors. The arcade and the colonnade are the dominant elements used to articulate the exterior façades. In the juxtaposition of the arcade–a classical architectural element that finds its precedent in traditional town squares–with the spindly iron colonnade–a modernist, abstract element with references to industrial, constructivist, and even utopian images–Moneo sought to create a dialectic between the strong presence of the old city on the site and the uncertainty of the character of the future expansion under the influence of an emerging democracy. The façade of the arcade contains explicit references to the city. The arcade with the upper band of windows borrows its composition from the building behind it (fig. 66). Although the window detailing comes from domestic architecture (reference could be made to Tessenow and Grassi), the "generality" inherent in repetition converts it to a public building housing the most important urban institutions. The position of the diagonals orients the building towards the old part of the city.

The façade with the colonnade can be considered the main façade of the building as it opens up to incorporate the Building of Arts and Crafts, which Moneo characterized in his *memoria* as "the most dignified place in the area." The design of a colonnade, reminiscent of an industrial building, devoid of details and light, represents the void in the new state and its openness to a new era. The new Spain could not forget its past, but it also has to move forward and be open to external influences. The colonnade expresses the desire to transform the place, to provide it with a new identity. Moneo explained the colonnade as a

"non-rhetorical contention of modern architecture."[28]

Just as Asplund deviated from his Scandinavian classicism to incorporate European functionalist trends in his buildings for the Stockholm Exposition in 1930, so Moneo commented on Franco's monumentality by aligning himself with the Italian neo-rationalism of his contemporaries Aldo Rossi and Giorgio Grassi, who in turn were reacting to Italian Fascist architecture. Rossi's Gallaratese in Milan (1972) and Giorgio Grassi's project for student housing at Chieti (1976), for example, relied on neoclassical arcaded streets, but restated them in a language of stern rectangularity, supplying the repeated concrete piers and horizontal overhangs with the importance of a portico.

In the town hall, Moneo uses a concrete post-and-beam structure as the basis for his construction. It was used at the semantic level as an economic and flexible element and at the syntactic level as the means for constructing form and space. The concrete post-and-beam structure had its precedent in the wooden frame construction of old domestic architecture. Moneo argued that "the constructor of framework has always valued the independence it gives from formal obligations that were foreign to his work on account of its lightness, flexibility, and ease of assembly, etc."[29] By using a conventional concrete skeleton Moneo had the advantage of concrete construction without the distractions of its formal possibilities. His architecture did not rely on the figurative (a criticism of Le Corbusier's Brutalism and Japanese architecture); he used the concrete structure for its inherent ability to behave like wood or steel and not as a finishing material. The building was sheathed in beige Salamanca stone.

The value of the building is to be sought in the formal transmutations between structure and type and the syntax of its constructive and typological elements. The model may well have been Terragni's Casa del Fascio (1932-36, fig. 67), whose offices were organized around a central patio. However, in

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[28] Interview with Moneo, Madrid, 11 July 1999.

[29] Rafael Moneo, "La llegada de una nueva técnica a la arquitectura: las estructuras reticulares de hormigón," Escuela Técnica Superior de Arquitectura de Barcelona, May 1976, p. 5.

Moneo's building the interior spatial events reinforce the idea of the building as container, as opposed to Terragni's *casa* which was conceived as a pierced box. The container was given to the city and sprang from the city; it was fragmented and dispersed, but retained its autonomy, safeguarding the creative act of the architect.

In their analyses of the town hall, Gabriel Ruiz Cabrero and Alfonso Valdés looked for the artistic and architectural precedents that Moneo could possibly have had in mind. Cabrero suggested works of art that used the diagonal, such as Mondrian's abstract paintings, Russian constructivism of the 1920s (Melnikov's Russian Pavilion at the International Exposition in Paris in 1925 had a strong influence on Spanish architecture in the 1960s), the oblique vision in the science of perspective, as presented in Panofsky's essay, "Perspective as a Symbolic Form," which was published in Spain in 1973. Cabrero argued that Moneo used the oblique, not as an artistic intervention, but as a "reflection on the issue of the oblique vision in its artistic version of its time."[30] The building, however, was not a replica, as I have shown. Indeed, it was a comment on the illusion of the great period of abstraction that allowed him to make a democratic building.

Valdés also looked for the architectural sources that could have inspired the design of the town hall. One of them he found in Venturi's analysis of Manhattan's triangular squares formed by the singular conditions of street intersections that referred to the use of the oblique as a line imposed by the city. Alvar Aalto's library in the cultural center of Wolfsburg was another source he identified for its treatment of interior open spaces. Valdés also studied Stirling's Cambridge University History Faculty Building (1964-67), Venturi's Mathematics Department Building at Yale University (1969-70), and Jacobsen's town hall in Mainz (1968-73) looking for precedents. Rossi's rationalist Tendenza exhibition in Milan in 1973 offered a language appropriate for public buildings. To blur these

references Moneo used the Nordic masters, such as Asplund and Tessenow, "who passed from classicism to the modern movement without offering a solution to continuity."[31] Moneo's reliance to the early masters is not surprising considering his underlying interest in viewing modernism through the history of Western architecture (an interest that becomes even much more obvious in the Mérida museum project).

Cabrero and Valdés considered Moneo's design method at the formal level to be a kind of inclusive empiricism, but that was not really accurate. Moneo's thinking did not revolve around the precedent as a primary source. The project was driven by the realization and hierarchization of a set of urban and structural choices of site, materials, and form; a set of historical circumstances including political and social change; and a set of theoretical conditions, building types, and current architectural culture that he could impose. Both in the Bankinter and in the town hall, Moneo's particular concerns were material, construction, and technique, structure and form in their relationship to building types and forms in the city generally. This places the Logroño project somewhere between his definition of the building as an urban episode and his critics' reading of it as an intellectually driven exercise. Any contextual justification and any reference to an ideal precedent becomes circumstantial when faced with the architect's task of crystallizing a changing situation and his desire for self-expression.

Moneo rejected the idea of the building as object, which by itself conveyed a false monumentality. The monument is not something alien to the city. The idea of seeking an "authentic monumentality" grew out of a reaction not only to the common perception of public building in Franco's Spain, but also to the critical response to Rossi's recent theories on the role of the monument in the ideal city.[32]

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[30] Gabriel Ruiz Cabrero, "De ángulos y diagonales," *Arquitectura* 236 (May-June 1982): 37.

[31] Alfonso Valdés, "Rafael Moneo: Retórica y Experimentalismo," *Arquitectura* 236 (May-June 1982): 46.

[32] In 1973, the year Moneo was commissioned to design the town hall, he published the essay *La Idea de Arquitectura en Rossi y el Cementerio de Modena.* (Barcelona: ETSAB).

About Rossi, Moneo wrote:

> Monumentality, in Rossian terms, is indeed useful for the understanding of the old city, but can the modern city be adjusted to the same models? Answering this question forces us not only to accept the autonomy of architecture but also to consider an atemporality, which would lead us to admit that the old city and the new are, at least in principle, the same thing. And if that is the case, then the attitude of man towards urban facts and toward architecture would also be the same. We would find ourselves in a fully platonic vision of events, or perhaps it would be a structuralist view capable of clarifying the city and thereby its architecture through the concepts of typology and morphology.[33]

Moneo was clearly attracted to and immersed in Rossi's theories in the early 1970s. Although he ended by rejecting Rossi's formal choices as instruments for validating his architectural theories, the town hall is permeated by Rossi's elemental architecture of the Modena cemetery. In his article on the Modena cemetery (which he wrote while he was designing the town hall), Moneo quoted Rossi: "The aggregate of buildings is configured like a city ... the cemetery becomes a public building with the necessary clarity and rationality of the pathways, with a suitable use of land... the reference to the cemetery is established in the architecture of the cemetery, of the house, of the city."[34] Through Rossi Moneo was able to see the big triangular partis with their triangular interior patios to develop as public spaces, borrowing their themes–the arcades, the stairs, the balconies–from the traditional city. Moneo claims that the town hall was not thought of in perspectival terms–that is, in the Rossian way; it is not subject to the hierarchical laws that perspective imposes, distancing himself from Rossi's primary sources for an understanding of how is the city constructed; that is, the neo-classical city. After all, the diagonals initially imposed by the city's expansive

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[33] Ibid., p. 21.
[34] Aldo Rossi, "L'azzurro del cielo," *Contraspazio* 10, (October 1972), p. 9.

forces on the site and the building, were assisting him to elaborate on his Rossian critique.

Extension of Headquarters of the Banco de España, Madrid, (1979)

The Banco de España on the plaza de Cibéles in Madrid was constructed by Adaro and Sainz de la Lastra between 1882 and 1891 in an eclectic neoclassical style and expanded by Yárnoz Larrosa in 1927, using the same composition and façade elements. In 1969 Yárnoz Orcoyen built an addition to the structure on the back side only, since the space at the corner of Alcalá and Marqués de Cubas streets had already been take up by an addition to the Banca Calamarte by the architect Lorite between 1919 and 1924 (fig. 72). In 1978 the Banco de España decided to hold a limited competition, inviting various prestigious Spanish architectural firms–among them Moneo's–to design a replacement for the Lorite building which by then had been acquired by the Banco de España. Moneo's entry was distinguished for solving the problem based on the reality of the project.

The proposals submitted to the competition varied from modernist approaches based on the premise that "the contemporary cannot imitate, ethically or aesthetically, an architecture that not only is not recent, but also cannot be considered as appropriate for our times" [35] (figs. 69, 70), to a variety of entries reflecting the idea that "only a certain continuity with the work already built can solve the problem."

The small size of the extension called for compared to the overall dimensions of the extant bank building led most of the entries to respect the scale and proportions of the existing buildings and only to mark their contemporaneity

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[35] "Ampliación del edificio central del Banco de España en Madrid," *Arquitectura.* 228 (January-February 1981): 43.

in the treatment of the façades and the choice of materials. Moneo's solution was the closest to the existing building. It was in effect a replica of the original façade that privileged its initial language and scale as if refusing to choose new clothes for the institution (fig. 68, 71). Instead, the entry was intended to unify the bank as an integrated institution. The history of the site and building–the initial project of 1882 and the expansions of 1891, 1927, and 1969–had established the criteria that justified using a replica as the solution.

Although Moneo's entry won first prize in the competition and had the bank's support, political differences between the city's and the bank's administrators came in the way of its realization. Some were opposed to tearing down what they regarded as part of the city's history and campaigned against it in the local press. They managed to have the project canceled by the municipality in 1980 in favor of restoring Lorite's building.[36]

The original façade on the plaza de Cibeles was a classical composition. The subsequent extensions had respected the formal principles of the original building except for the disputed Lorite corner addition. Regarding these, Moneo wrote that "the extension of 1927 owes its success, not only to the sensibility that it demonstrates in capturing the mechanism of the composition of the bank's façades, but also to the extent that it maintained a strict replication of the original elements."

The 1969 extension was an anomaly because it interrupted the continuity of the formal principles initially laid out; [it] is less successful than the previous one with respect to its planimetry, as well as the ambiguous mimetic simplification of its constructive elements.[37]

Moneo proposed to correct the anomaly along the same lines as the 1927

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[36] According to Moneo, the project was halted for political reasons. At the time Prime Minister Suarez came from the right; the municipal government, including the mayor and the first deputy mayor belonged to the left. The resulting rivalry precluded the approval of almost any project.
[37] Moneo, "A mi entender." (memoria) *Arquitectura* 228 (January-February 1981): 49.

extension, by completing the corner with a replica.

Designing a replica meant having recourse to obsolete academic mechanisms of composition. Moneo justified his decision as being required by the circumstances of the site and its history. His seemingly historicist proposal came at a time when the rise of postmodernism had put modern architecture on shaky ground. Moneo, aware that his proposal could be identified with the then-current postmodernist trends that were turning architecture into mere image, commented in his *memoria*:

> The approach proposed regards construction as supporting the image, without relying on the world of appearances and allusions that the architecture of those who now turn their eyes towards history use most of the time. [It was with this understanding that the entry was presented:] . . . if architecture is constructed without betraying its condition, the problem of the replica is eliminated.[38]

Moneo had long ago rejected any a priori theory and method of composition of elements, favoring instead an analysis of the realities of each particular project. How did he justify the factual, the circumstantial, in the Banco de España case? His study of the evolution of the mosque at Córdoba[39] can throw some light on his position. Moneo had examined the consecutive extensions of the Córdoba mosque based on the idea that a building assumes a life of its own independent of its architect and its initial conception:

The life of buildings and their formal coherence [have] to be perceived as continuous over time, as something that lies outside their original conception, something that, once construction is complete, leads to the recognition of its autonomy. The formal principles of architecture transcend the architect and its

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[38] Ibid., p. 50.

39 Rafael Moneo, "The Life of Buildings: On the Córdoba Mosque Extensions," an essay first presented as a lecture at the Syracuse University School of Architecture on 23 February 1977; at the Harvard Graduate School of Design on 6 May 1977; and at the School of Architecture in Lausanne in June 1979. It was published in French under the title, "La vie des édifices," *Franco Maria Ricci* 15 (July-August 1988).

time of construction to become the main components–"the malleable material"–for future interventions. If these principles are powerful enough, they will absorb all transformations and preserve the building's identity.[40]

Over the span of twelve centuries the Great Mosque of Córdoba had retained the integrity of its architecture through the vicissitudes of various patrons and extensive modifications and renovations. The mosque was built in 784-86 on the site of a Christian church, after the Muslim Umayyads had conquered the territory, and it was expanded by a succession of Umayyad caliphs in 833-52 and again in 961-76 and in 987. An entire Gothic cathedral was erected inside the mosque after Spain once more fell into Christian hands in the eleventh century. The formal principles were so powerful that they transcended the temporary passage of patrons and architects emerging from very distinct cultures with very distinct ideologies and were defined once and for all.

In the Banco de España building Moneo acknowledged the autonomy of the object as prevailing over any modernist notions of intervention. His appreciation of an architecture that does not cancel out its predecessors and his insistence that modern architecture could live together with earlier styles represented an implicit criticism of modern concepts of flexibility and multiple functions that deny the possibility of "permanence." It is precisely this permanence–the architectural identity of the building–that allows the change.[41]

While the Córdoba study legitimized his belief in the coherence of the architecture of the object, Moneo was aware that his replica *à l'identique* adhered to the concept of unity and coherence at the formal level. The study of the mosque confirmed in theory what could be considered his ideological approach in practice. The insistence on specific languages based either on fidelity to a certain zeitgeist, or on the notion of authenticity, or on a-priori ethical and aesthetic criteria is no longer valid. Instead, "we have to accept the peculiarity and the singularity of

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[40] Ibid., p.112.

each case in the conviction that the solution to a given problem will grow out of specific ways of understanding architecture and the flexibility of the discipline."[42]

Moneo's conviction that the correct solution was to design the replica *à l'identique* will have to be converted into the replica as a mask if the project is ever constructed. To solve the problem of discontinuity/ disjunction between structure and form, I believe that he would not resist defending the non-conformity of the mask, having already legitimized it in Jujol's work. In 1977 Moneo wrote that Jujol–a collaborator of Gaudí–"turned the Negre house (a humble country house) into a pseudo-historical mansion with the application of architecture as mask. But this condition of the mask was not hidden; the architect openly recognized stylistic commitments. The Negre house was dressed up in Baroque clothing, but it was something else as well . . . the cornice is drawn in such a way that the known construction device is forgotten, overwhelmed by the power of the surface."[43] Even in a proposal that openly commits the architect to style, Moneo sticks to the circumstance to defend its alleged historicism.

National Museum of Roman Art, Mérida (1980-85)

The Museum of Roman Art in Mérida was commissioned by the Spanish government to house the collections conserved in the church of Santa Clara together with any artifacts discovered in future excavations. It was to be built to celebrate the two millennia since the founding of the city. To the principal question–what is a museum both as a type and as an institution–Moneo responded by grounding the building in its immediate circumstance. In its proximity to the well-preserved Roman ruins of the theater and amphitheater built by Agrippa in the first century B.C., and the ruins of the aqueduct of San Lázaro.

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[41] Ibid., p.120.
[42] Rafael Moneo, "A mi entender," Arquitectura 228 (January-February 1981): 54.
[43] Rafael Moneo. "Jujol and the Tragedy of the Gaudinists," paper presented at the Drawing

In this commission Moneo dealt for the first time not just with construction, but with designing for an old city loaded with monuments that carried the memories of its history. The site contained traces of both Roman and medieval urban fabric and walls. The Museum of Roman Art was designed to reconcile these ruins with Roman splendor and with the dense fabric of the medieval city. As part of an archaeological site the museum would help revive the traces of the Roman city as a testament to the powerful impression that ancient Rome had imposed on the urban fabric, but it would also be part of the medieval grid (fig. 73). The traces of the Roman city would become part of the exhibition area; the traces of the medieval city would dictate the structural grid of the building.

The first sketch (fig. 74) traced the building lines and the grid on the plan: it focused on the program and the character of the building. The grid of the medieval city penetrated the plan, and the strong circular imprint of the Roman monuments was mirrored in the museum, forging a link between the museum and the archaeological site. The circular imprint was later dropped from the plan, but the strength of the initial concept was carried through the design and construction phase.

The museum comprised two buildings joined by a metal bridge built above the ruins. The public rooms, the administrative offices, and the library were located in the first building, which was distinguished from the main museum by its scale and by the nature of its openings. Moneo decided early on that the exhibitions had to be independent of the ruins, so he situated the galleries at street level. The ruins would remain hidden in the basement or crypt, conveying the idea that a whole city existed underneath the building. A subterranean passage would lead to a theater and amphitheater, also at crypt level (fig. 75).

Structure defined form, and was intimately linked with what Moneo called construction technique *à la romaine* which was intended to establish a harmonious relationship with the ruins and acknowledge one of the most obvious principles of

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Center, New York, 5/11/1977.

Roman architecture, namely its solidity.[44]

Moneo conceived a system of construction *à la romaine* using a composite structure of lightly reinforced concrete encased in brick (fig. 76). This structure was probably inspired by the French archaeologist Choisy's (1841-1909) treatise, *L'Art de bâtir chez les Romains*: it was through this work that Moneo developed an understanding of building *à la romaine*. Choisy wrote that the Romans taught us to be aware of technique, to reduce the importance of auxiliary works in building, to transform temporary scaffolding into the structure of the building because this was what the Romans did. According to Choisy, the Romans needed to build permanent low-maintenance structures as their empire spread.

The brick used for the museum came from Seville where they still produce a slightly thinner brick similar in size and shape to a Roman one. But unlike the Romans, whose buildings were built with a thick mortar joint, Moneo wanted the brick unplastered and with a minimal joint to make the walls more abstract, acknowledging Kahn's sense of monumentality and purity in his public brick buildings. "Using the brick without a joint–or, more precisely, a dry joint without mortar–secures the brickness of the material, keeps the brick in a purer state, and allows the wall to remain as an almost abstract architectural element, without becoming the kind of agglomeration that these walls tend to be."[45] Unlike Kahn, who found the essence of the material in the material itself, Moneo seeks its formal representation in its construction – that is, not in the material *per se*, but in the joint. He strives to achieve a thin joint not only to test the structural limitations of the material but also to strengthen its abstract, formal conditions.

The pale yellow-pink pressed brick was modified to include a deep recess for the mortar top and bottom, a device Moneo had already used, though with a different brick, at Bankinter. The effect was an almost homogeneous skin inside

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[44] Rafael Moneo, "Museo de Arte Romano, Mérida", (memoria) *Arquitectura* 248 (May-June 1984): 34.

and outside with only the radials of arches and relieving arches punctuating it and revealing that they were structural elements. The uniformity of the walls inside and out represented an attempt to achieve coherence between architecture and construction. "I would like people visiting the museum to have the feeling that not only the crypt, but also the new walls were 'found' in excavations, that the walls have been there since the third century after Christ and were uncovered in the process of building another building some centuries later."[46] The museum was to become one of the city's monuments, though Moneo tried to avoid a monumental character that would pretend to be a literal approximation of the city's ancient monuments. The connection would be made in the proper use of structure, scale, proportion, construction techniques, and the animation of the museum walls by its exhibits.

The plan and the section were the two major working tools for extracting a mechanism of design. At the basement level the reality of the parallel wall structure is nullified by the illusion of the grid of pillars (fig. 75). The plan of the crypt was produced by superimposing the structural grid of the medieval city–the repetitive sequence of parallel walls cutting through the building transversely–onto the traces of the Roman city. These traces had to be integrated into the museum and exhibited in situ with the fewest possible spatial distractions from the structural grid.

The Córdoba mosque may have served as the model for the definition of structure and space at the basement level of the Mérida museum. Its architects had used the arch, piercing a series of repetitive walls as its essential structural element. Moneo argued that the Arabs had known the arch from Roman works, especially aqueducts. In their use of the arch they removed it from any association with a style or language. The sequence of parallel arched walls produced an effect of a second direction perpendicular to the walls, but on the plan both directions

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[45] "The Idea of Lasting: A Conversation with Rafael Moneo," *Perspecta* 24 (1988): 148-49.
[46] Moneo, "Museo de Arte Romano, Mérida", p. 38.

were blocked by rows of columns (fig. 77). This non-directional forest of columns, created the desired generic, neutral space that evoked the generalized space in a mosque as opposed to the "unity and singularity of traditional Western architecture."[47] In the sequence of pierced parallel walls, Moneo intended to re-create a similar feeling of structural neutrality that would give precedence to the Roman ruins.

At the ground level a classical system of construction was superimposed on a modern conception of space (fig. 75). The parallel structural walls were converted to exhibition walls conceived as huge stone archives. In their juxtaposition the idea of the collectionist prevails. They established the parameters for the superimposition of two distinct and diverse spatial schemes, a virtual and a material one, which together constitute the complete reality of the design of the interior space. One might say that the virtual system, the illusion created by the succession of arches, is as strong and powerful as the system of planes which conforms the analytic material condition.[48] Compositional elements–horizontal planes of thin flat slabs of reinforced concrete edged by steel railings suspended in the space defined by the massive parallel bearing walls, ramps, staircases and skylights–secured a modern vision of space and closure based on movement, openness, perception, and natural lighting, which denied any expectation of hierarchical order and symmetry in the Roman section: a visit to the museum is a *promenade architecturale*, a trip with an itinerary.

Movement in the interior public spaces derived from the idea of meandering around in a medieval city is represented by the stony, parallel exhibition walls. The location of the main entrance on the southeast side on the ground floor was dictated in order to allow the visitor to meander on the longitudinal and then exit the building at the basement level below the main entrance, where the building and the archaeological site meet.

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[47] Moneo, "La vie des édifices," p. 112.

[48] Moneo, "Museo de Arte Romano, Mérida", p. 38.

The arch (fig. 78) plays an important role as a structural and formal element in the spatial configuration of the museum. It was essential in Roman construction. The arch suggested "continuity" and provided the "order, harmony, beauty" that helped impose the presence of the state in the vast empire through its public works and "allowed the use of an indifferent master builder."[49] The repetitive arched walls were inspired by Roman aqueducts, bridges, and the ruins found in the area. On the transverse section Moneo combined the construction techniques and imagery of the nearby aqueduct of San Lázaro (fig. 80) and the bridge that spans the river Albarregas (fig. 79). On the bridge the successive arches formed a long span that connected the two banks of the river; for the aqueduct, arches were used to achieve the height needed to carry the water into the city. Moneo combined both constructions (fig. 78) to bridge a long span over the crypt and create a platform for the museum at ground level, as well as to reach the desired height in the main exhibition hall, or "great nave" as Moneo calls it.

From east to west the conception of the great nave in the sequence of arched openings bears a strong resemblance to the western entrance to the adjacent Roman theater (figs. 81, 82), rather than to the basilica Moneo refers to in his *memoria*: if the basilica exists, it is only as a metaphor, since Christian basilicas were oriented along a longitudinal axis.

The enclosure is the mediator between the city (the profane) and the interior space (the sacred, the monumental) and the provider of natural light. For the mediator, the architect had to consider image, structure, and context; for the provider of light he had to deal with orientation. The museum has been described as looking like an opaque warehouse or arsenal that conceals its contents and generates a monumental effect with its high and almost blind walls. The administrative part with the conference hall and the entrance were designed to have a more domesticated character.

The repetition of the structural walls on the transversal left its imprint on

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[49] Rafael Moneo, "Notas sobre la arquitectura griega," *Hogar y Arquitectura* 59 (July-August 1965): 77.

the southern elevation in the extrusion of slender buttresses reminiscent of Gothic cathedrals and in the north in the deep notches that incorporate the downspouts. Both façades express their verticality, rhythmically marked off at the roof, by triangular, vertical skylights (figs. 84).

Two major changes from the initial design of 1980 were made in later phases: skylights were inserted above the central space, and the northern facade, which was originally drawn as a monolithic, vertical, sheer, bearing wall to support the system of parallel interior walls, was further elaborated (fig. 85). In a later revision the northern facade was broken down by setting back the upper part of the wall at about the same level as the houses opposite, thus creating a lower gallery that is hollowed out of the space on which the central arches stand (figs. 86). Moving the wall inwards not only separated the main exhibition areas from the service corridor that runs behind them above the gallery, but also made room for a row of angled skylights above the service corridor that filtered and diffused northern light onto the opaque walls of the lower gallery in the main exhibition area. The same idea of double walls that shed indirect light from the broad windows was set below the eaves in the south façade. The effect on each façade differed dramatically in proportion, in the way the openings were set in the façade, and in the way the light was directed into the spaces to create the different qualities of space required for the exhibits, as well as in the way it responded to the different orientations of the building.[50]

Approaching the main entrance from the street with an oblique view of the building and placing the entrance on one side is a Moneo trademark. The entrance does not front on the archaeological site to avoid establishing direct rapport with the Roman architecture. He uses an Aaltian theme of asymmetry (Aalto used the same device of the indirect entrance in his buildings) as a critique of the centrality and monumentality in the treatment of the entrance in classical architecture as well

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[50] The indirect light coming from the south façade has since been compromised by the installation of air conditioning in the double wall of the south façade to deal with the extreme summer heat.

as a deliberate gesture to force the user to turn 90 degrees. The entrance is plain and designed with a "tectonic simplicity that excludes any kind of celebratory emphasis or rhetoric."[51]

For its scale Moneo adopted a Soanian reading of what a museum should be. Commenting on Soane's museum in London, Moneo had written: "Its lack of importance surprises us; the house forgets all about reduced dimensions, and its architecture acquires a consistency that surpasses the order of measure. What are the real dimensions of the pieces? What if they are prototypes that haven't yet acquired their precise dimension?"[52] Similarly, in the Mérida Museum the indifference to scale, proportions, and measure add to the perception that the interaction between the system of parallel walls and the system of voids produces "the fiction of a nave."

The system of transverse walls thus defines a series of naves that, by their deliberately secondary condition, will assume the character needed for the museum–an immense collection of stony remains. A series of corridors and bridges at different heights makes it possible to superimpose a collage of Roman fragments on these walls, while they allow new views of the central nave which is the primary episode of the museum.[53]

Once the architecture was defined, Moneo established the relationship between the space and the exhibits. "A vision of what Roman cloisters are or some sketches by Piranesi would be the closest thing to the image that the architect had in mind of what the museum should be."[54] Piranesi's vision of fragmented realities which in their entirety created a city inspired Moneo to see the museum as a city.

As already seen critics of the museum have restricted their analysis to a

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[51] Francesco Dal Co, "Roman Brickwork," *Lotus* 46 (1985): 25.
[52] Rafael Moneo, "4 Citas/4 Notas," *Arquitecturas-bis* 38-39, (July-October 1981): 44-45.
[53] Moneo, "Memoria," p. 34.
[54] Ibid., p. 35. This is not the first time Moneo turned to Piranesi for inspiration. In the Banco de España, Moneo used Tafuri's Piranesian interpretation of the fragmented city to offer a vision of what the contemporary city ought to be. The museum by definition also re-creates a fragmented

modernist reading that only allows the building to be viewed as a mannered citation of the Roman or even the modern. However, in its definition of public space (the great nave, its adjacent halls, and its surrounding services) what was at stake was not the Roman or the modern, but the tradition of public and religious buildings that defined the hierarchy of social values of life in Spain. This includes Roman public works, Arab mosques, and Christian cathedrals. Each one of these cultures translated into spaces and buildings their need to establish their power and hegemony in the minds of the collective. These images were very immediate and alive in Moneo's mind; he conceived and designed the building through creating and interpreting space as a way of regaining contact with meaning. He believed that experiencing architecture was as valuable as studying it. If there is a connection between Moneo's architecture and all these architectures, it is in the capacity to evoke them with clearly defined principles, spaces, traditions and memories.

By working within this long and varied Spanish tradition, Moneo casts a modern light on Spanish erudition and its relation with the past, a tradition that had absorbed the encounter of Western and Eastern influences, while preserving local characteristics; a tradition that by the 1980s had also absorbed the modern as part of Spain's national patrimony.

The Museum of Roman Art was Moneo's first public commission with national exposure as well as his first museum, a building type for which he was later to win international acclaim. With it, Moneo became known as a museum designer. Since then he has built the Fundación Joan and Pilar Miró in Palma de Mallorca, the Davis Museum in Wellesley, Massachusetts, the Museum of Modern Architecture in Stockholm, the Museum Thyssen-Bornezmisza in Madrid, the extension to the Houston Museum in Texas, and currently an extension for the Prado Museum in Madrid.

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vision of the past.

Previsión Española, Seville (1982-88)

The building for the most important insurance company in Andalusia, the Previsión Española in Seville, introduced new elements in the way Moneo intervened in a historic city. The site is on a corner at the edge of the old city center on the banks of the Guadalquivir river, opposite the Torre del Oro, a landmark built by the Arabs as a defensive tower. Moneo visualized the building as belonging to a strong architectural tradition that requires any new intervention to be integrated into the city fabric:

> Any architecture which respects the city and is worthy of standing in Seville must not only be integrated into the urban pattern, but must also choose the right scale. . . . There are numerous Seville buildings on a par with the Previsión Española that follow a tripartite scheme consisting of a base, a *piano nobile*, and an upper floor. Using a composition of this kind we were able to create a continuous building, linked to the geometry of the city and to the road network on which it is modeled.[55]

The Previsión Española was modeled after a city wall in a part of the old city where this was once an Arab fort, built on the site in the eleventh century. In the fourteenth it was turned into a residential area (fig. 89). The façades were the main element of the design; the plan followed the function and program of an office building.

The façades were articulated using principles of classical composition and elements found in the city. Moneo had used a similar technique of abstract representation in the design of the façade of the Bankinter headquarters. Its pronounced horizontality was articulated with recesses on the ground floor; loggias on the upper floors juxtaposed with buffer zones covered in pink horizontal-lined

brick. This overall horizontal quality was relieved by pillars which differ in proportions and material according to the floors: concrete with a brick coat turned on the diagonal on the ground floor, Macael marble on the second floor, cast iron on the third floor. The railings are of gray cast iron; the parapets are white marble. The variety of materials used to wrap the facades was derived from local architecture (fig. 90).

The need to break the horizontality of the façades and establish a connection between exterior and interior was addressed in the corner solution, where a vertical space breaks through the whole building to reach the light above (fig. 91). Apart from this local intervention in section, which involved the plan, the design was dictated by the elevations. Classical composition was not the goal; it was the means for designing the wall that completed the block and the city.

Ignaci de Solá-Morales, in a detailed analysis of the treatment of the order of the façades and their articulation, demonstrated how the façade–initially divided in three horizontal bands–was subdivided into smaller partitions to allow a more accurate, richer, denser reading of the city in its scale and proportions[56] (fig. 92). The rather monumental corner entrance borrowed from a modern sculptural vocabulary set against the general compositional rhythm of the façades as a response to the monumental tower across the street created an ambivalence that is typical of a Moneo design. No compositional element is exhausted until it is negated by another one. The ambivalence between its compositional and abstract parts played on the city's theme of the palazzo and the defensive wall, the sumptuous and the plain. In the same way as its main façade and contour evoke the Torre del Oro, the defensive wall and the decorative scale of the city's façades, its back façade evokes the palace of San Telmo in its scale and materials. Peter Buchanan even argued that Moneo's insistence on connecting the building with the

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[55] Rafael Moneo, "Memoria," *Domus* 698 (October 1988): 11.

city's history resulted in formal decisions (the iron-fenced windows of the ground floor) that contradicted the aspirations of newly democratic Spain.[57]

What remained a constant concern in the design of the Previsión Española was the test of contemporaneity of old architecture, as in the Mérida Museum but looking from the outside in. In the Previsión office building Moneo opted for a textured structure to equal Seville's visual and spatial complexity and richness. The use of only one material, brick, in most of his previous buildings was not considered a proper solution here. In this context any stylistic abstraction one might attempt would pose a great danger of "schematicity."[58] The architect converted this new condition–the mixture of materials–to a design mechanism: "the construction of texture." The elevation was converted to a structure, a base, a canvas on which construction could take place (fig. 93). This attempt did not involve the indiscriminate use of a variety of materials, but an investigation of elements and compositions to achieve the condition of a wall that appeared to want to be continuous. Such a method may be contrasted with a sequential system of "structure" and "infill," where "one layers through the construction the secondary elements of enclosure, inhabiting what at the very beginning would be the structure of the building itself."[59] The focus on the wall and the construction of the texture is indicative of a contextual formalistic architecture devoid of any ideological connotations of the place.

But the construction of the texture raises the question of ornament. Ornament is not foreign to the construction of the wall, but its use invites a discussion of how much of it and in what form is enough to serve as a critique of the excessive representational role ornament played in past architectures (Baroque, Rococo) as well as a response to the elimination of ornament in modern

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[56] Ignaci de Solá-Morales, "La recherche patiente," *Arquitectura* 271-272, (March-June 1988).
[57] Peter Buchanan, "After the Golden Decade: The Challenge of the Nineties," *A&V, Monografías de Arquitectura y Vivienda* 24 (Madrid 1990), p. 18.
[58] "The Idea of Lasting: A Conversation with Rafael Moneo," *Perspecta* 24 (1988): 152.
[59] Ibid., p. 153.

architecture (Loos's "Ornament and Crime" and Mies's "Less is more"). Moneo conceived the Previsión Española as a highly contextualized building rooted in a specific building tradition.

Apart from Moneo's almost obsessive insistence on converting any architecture into a construction problem–in this case the preeminence of the façade that provided the canvas for constructing the texture–a study of the building as a mere façade or city wall would leave aside a more inclusive understanding of the building's integration into the city and contribute to the generation of a richer, denser mechanism of design. Although here it was the elevation that triggered a new approach to the architectural project, the plan always remained Moneo's closest, most accessible tool (fig. 94).

The site plan included a larger intervention that penetrated to the heart of the block (fig. 95). The proposal appropriated a large portion of the site to re-create the ambiance of an Islamic courtyard and restore and enhance the ruined ancient walls. The opening of the passage from Almirante Lobo, a side street, and the change of geometry at the arcade entrance that faces the Torre del Oro and leads to the back side of the building to connect the existing ruins with the city and the river edge reveal Moneo's consideration in working with the city, not only visually, but also with the topography of the site. Although the building was conceived as a wall, the site was part of an urban intervention open to the public as a promenade in an archaeological site. The building became the first step in the preservation of the memory of the city.

In addition, as much as the building alludes to the city, it alludes to the river too. The Guadalquivir river is the spring of the city's life. Looking at the building from the river, one has the impression that although designed to be integrated to the city, the building belongs to the river as well. Its prolonged horizontality and corner bow entrance allude to the horizontality of a ship, blurring the boundaries of the river edge (fig. 96). But its linearity and materiality as a boundary and a gate attach it to the medieval wall system; its street definition and

function as an office building with a specific program give it back to the city. All these qualities deposit the burden on the main façade to assume the representational character of its distinct allusions to the city and the river.

The Previsión Española concludes a 20-year period of practice with its search for an appropriate architecture in a historic city of Spain. The highly stylized building for the Previsión Española represents the extension of his exploration with the idea of construction from structure to figure; it claims figuratively to embody the history of the city with its 19th-century street façade composition, palace architecture, and the Torre del Oro. The metaphor of the building as part of the city wall favors the site and its history over the building's function and program. An understanding of the building not as object, but as the carrier of history, give precedence to the elaboration of the elevation over the subtle propositions for integration of the plan and the technical information of its construction in section. Had the "construction of the texture" of the façade not been given so much attention in its claim to be a custom-made building for Seville, the Previsión Española might be classified as a spin-off of the much celebrated Mérida museum in that both the history of the city and its buildings became an essential part of the elaboration of the project.

Stanley Allen has called Moneo "the most independent architect of today" because of his "ability to reinvent the fundamental projective basis of each project at the moment of its realization."[60] There is no doubt that Moneo has an independent mind, and if each of his projects seems different from the others, it is because he feels no allegiance to any particular formal language. However, he does use a consolidated projective method to customize the building according to whatever stage in the evolution of his thinking he happens to be in at that moment.

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[60] Stanley Allen, "Temptation by Space: Postscript to Moneo's work," *Assemblage* 14 (1991): 20.

Thus, although his buildings respond to their specific, actual circumstance–city, site, program–and acknowledge their responsibility to their surrounding environment and their users, it is the intellectual rigor of the artificial circumstance and particularly his critical positioning at the time that consolidate his practice with a coherent philosophy of design.

The study of the Spanish projects built before 1985 shows that while each building stands by itself as an entity within the history of its production and its actual circumstance, they all share their architect's affinity to their artificial circumstance–the attachment of the building to the city, its history, memory, tradition, and critical positioning to the discipline, which becomes their *raison d'être*. In 1985 Moneo remarked that "the building, if successful, can efface the architect."[61] In Moneo's case, his claim for the building's solitude, its retreat to its own reality, does not mean that his buildings may retreat into the anonymity that is inherent in vernacular architecture or lose their distinct character from complete integration in the historic city or its memory. As much as his buildings are conceived for and delivered to the city and its users, they belong to the discipline as well, for they exert a critical message for the period to which they belong. They are the bearers and reflections of Moneo's critical mind; they do not stand as examples of signature architecture, but as counter examples striving to transcend time and to be appreciated for their timeless and ahistorical qualities.

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[61] Rafael Moneo, "The Solitude of Buildings," Kenzo Tange Lecture, (Cambridge, Mass, 1986).

IV. Towards a Philosophy of Design

> "Architecture is not a product of nature [a theory promoted by Laugier}; architecture is a product of the mind."[1]
>
> Rafael Moneo

Tracing the evolution of Moneo's thinking and building in the first 25 years of his career separately can, it is hoped, clarify both and allow us to reach some conclusions about his philosophy of design. It could be summarized in his constant concern to fuse the operative role of the history of the discipline with the circumstantial reality of the construction of architecture. It is Moneo's ability to synthesize knowledge and the reality of architecture that allows us to explain the paradox of the designer who is always the same, but appears each time to be different and of the thinker who is both phenomenologist and rationalist; modernist and historian bound; experimental and yet admiring of tradition.

The analysis of his written and built work demonstrate that Moneo has pursued two separate careers (teaching and practice) concurrently and consistently without interruption. These careers merge in his built work through his drive to produce architecture that is at the same time circumstantial and meditated. It is circumstantial in that it focuses on solving the architectural problem. It is meditated in that it considers knowledge of the discipline and the experience that ties it to a certain tradition of building. As a result, his built work emerges from mature thinking since his early years, while his written work reinforces and becomes a testiment to this maturity. Writing has always been Moneo's indispensable tool to elaborate on issues that concern the architect's work; drawing has always been his indispensable tool to test his ideas for the practice of

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[1] Rafael Moneo, "Vitruvio y el buen salvaje," *Arquitectura-bis* 2 (July 1974): 13.

architecture. Text and drawing together are indispensable tools for our understanding of how Moneo evolved a coherent philosophy of design. It is in the synthetic reading of written and built work that his philosophy of design emerges to reveal the systematic character of his practice.

Moneo perceived the dualities of knowledge/reality, history/modernity, form/materiality as reflective and methodological tools in both explaining and practicing architecture. In 1965 Moneo located the reality of architecture in an architecture that reflects accurately the culture (techniques, knowledge, tradition, life style) and the needs and desires of society at a given time.[2] In 1973 he associated the reality of architecture with its construction as opposed to extrapolating it from the abstraction of theory.[3] Twenty years and twenty built projects later he located it in the connection between project and production, architecture and construction, an intimate link that was inherent in the architecture of the past, but lost in present days.[4] In direct opposition to the propensity of the leading architects of his generation, such as Eisenman and Rossi, to produce and explain contemporary architecture as a process, in which the building is the direct image of the drawing or the direct representation of theory, Moneo explains his architecture as the result of its construction. For Moneo a thorough knowledge of its construction makes possible the invention of form. "The knowledge of construction principles should be thorough as to allow the architect the formal invention that always precedes the fact of the construction itself. Architects in the past were both architects and builders. Before the present dissociation, the invention of form was also the invention of its construction. One implied the other."[5]

In 1988 he defined this "reality" as what remained constant in architecture from past to present: "Consistency relates to the existing coherence between built

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[2] Moneo, "A vueltas con la metodología," p. 10.
[3] Moneo, *La Idea de Arquitectura en Rossi y el Cementerio de Modena*, (Barcelona, 1973)
[4] Rafael Moneo, "The Solitude of Buildings" (Cambridge, Mass.: Harvard University, March 1985).
[5] Ibid.

form and image" that is conveyed in the art of construction, rather than in the "imitation of known models of architectural types. . . . [Construction] provides the feel of authenticity. . . . Therefore, my wish is to give buildings a consistency that derives from their materiality."[6] Reality, consistency, coherence, authenticity, materiality: rather than merely complying with programmatic obligations or aesthetic trends, those are the criteria architecture has the moral obligation to fulfill. An authentic architecture will then be capable of offering a critique of existing ideologies and overcoming the shortcomings of past solutions, while dealing with the demands of the actual historical situation and bringing something new to the continuing formation of architectural culture. This can only be done through combining the innovations of construction with the inventive aspects of the creative process.

For Moneo building and thinking about building are inseparable. Following Ortega, Moneo believes that thought should never be based on idealized conditions divorced from real time and space. Thus, he expects a project to reveal its own circumstance in its limitations and peculiarities. It is in the reabsorption of this circumstance, in its interpretation, that he intends to convert the project into his own creation. Moneo defines "circumstance" as the specificity of the project–its particular site, context, and program–and the artificiality of its creation, which combines history, tradition, type, materials, and form. It is submitting these conditions to the rigorous critique of the architectural project using history and theory as his agents that allows him to find his definition of the contemporary project.

Moneo has always tried to convince his audience that his work is centered on the construction of architecture–the most essential, concrete, creative and enduring aspect of the discipline. However, Moneo confronts his circumstance in thinking and in bringing theory into it. This is theory that he finds in history: "behind each historical moment, behind each architecture, is a nucleus of ideas that

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[6] Moneo, "The Idea of Lasting," p. 147.

explains it and makes it possible. And this is what an architect is interested in knowing more about."[7] It is theory drawn from previous experience that he introduces to the actual project to distance himself from its immediacy and thus be able to act on it critically. The result of this intellectual operation is ultimately conditioned by the necessities of the project broken down into its elements–a wall, a staircase, a ceiling, a window–seeking to bring its synthetic value to its fullest significance. "It is exactly this circumstantial condition of his thinking [and practicing] that conveys his new idea of thinking [and practicing] as drawing on the immediate,"[8] and the already known.

Moneo's built work is usually characterized as "eclectic" because he has resisted using stylistic references that would allow the identification of the architect behind the work. What ties Moneo's buildings together is the reflection of his thinking in his built work, a creative methodological rigor and a consistency in the elaboration of architectural elements, which establish a certain continuity. His intellectual evolution–consistent with his perspective of the insider, at times disruptive in his need to stay ahead of current trends but always critical–is mirrored in his oeuvre. The task of a synthetic reading of his written and built work becomes one of tracing the consistencies and disruptions in the total work through his interpretation of each project's circumstance and his positioning in the architectural culture at the time. An important clue for understanding the singularity of Moneo's practice lies on his reluctance to work with a prescriptive theory of practice, while he commands the history of architectural theory at large.

Although Moneo locates the precedent in modern architecture, for him modernity is neither a style, nor a method, nor it is about capturing a certain zeitgeist; modernity signifies a way of thinking, the attitude of the "I" towards life.

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[7] Moneo, *Programas de Curso y Ejercicios de Examen*, (Madrid: Escuela de Arquitectura de Madrid, 1986), p. 11.

[8] Julián Marías, in José Ortega y Gasset. *Meditaciones sobre la literatura y el arte: la manera española de ver las cosas*, p. 358.

To be modern is not to adhere to the modernist dogmas; it is to face the reality of the actual condition of the project and act on it. Knowledge of the history of architecture and experience secure the optimal solution in the process of the invention of form through its construction.

His understanding of the invention of form was based on the contemporary Italian philosopher Luigi Pareyson's theory of "formativity." Through Pareyson, Moneo established a methodology of design that functioned concurrently with the creation of the architectural project in a way that made the invention of the form and the way it was made indivisible. According to Pareyson, form and material are inseparable; the invention and construction of form are firmly bound together. "The work of art is identified with the material out of which it is made once that material is shaped."[9] The work is begun when the material is chosen, and concluded when the material is formed. Consequently the project cannot be drawn at the margin of its realization; the drawing becomes an active agent in the definition of form contained in the precise representation of materials.

Thus Moneo perceived the philosophical dualities knowledge/reality, history/modernity, form/materiality as constructions on which he could act and which he could transform dialectically according to the circumstance. His interest in philosophy was conditioned by the reality of his profession; his affinity with history enriched the meaning of being modern; his attachment to his circumstance escaped identification with the local or the regional in the name of an architecture that lasts: form can only be expressed through its materiality. Moneo's built work between 1965 and 1985 exerts a richness in the materialization of ideas that is unique of his practice and is supported by two side mechanisms: the written material that supports the analysis of the ideas and the graphic representation of the architectural project as the intermediary between idea and building that tests the possibilities of the materiality of form.

When Moneo opened his Madrid office in the mid-1960s, he had already

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[9] Luigi Pareyson, "Traducción, adaptación, versión," *Conversaciones de estética.* p. 59.

decided he would provide a critique of the limited, but nonetheless dogmatic, modernist movement in Spain, a critical attitude stimulated by his exposure to the Scandinavian and Italian modernist paradigms with which he had become acquainted during his travels there in the early 1960s. The architecture he produced in the 1960s lies somewhere between an organic expressionism and modernist rationalism filtered through old traditions of local architecture and the history of the site. He was preoccupied with importing a modern architecture that in both its principles and its vocabulary could fit into the Spanish context, could be absorbed in its place over time, and could endure. He used modern architecture as his "working material," to test the formal possibilities of new materials, adjusting its principles to suit each project's circumstance and reworking its vocabulary to invent a form through the solidity of its construction.

Equipped with the paradigm of Oíza's synthetic skills and Utzon's formalism expressed in construction, Moneo learned the practice of architecture–construction, technique, and materials of a specific cultural domain–while absorbing the ideas of Wright, Mies, and Le Corbusier through the lens of the Scandinavians and Italians–Aalto via Utzon and Gardella's "reluctant historicism" and destylizing of the vernacular; through Rogers's interest in the historic city as expressed in his work and through *Casabella*; the interest in history manifested in Kahn's architecture, and from Zevi's writings on modern architects who promoted organic architecture as the only possible one through the pages of *Architettura, Movimento e Continuita.* Moneo used the experiences he brought back with him as he plunged into the adventure of establishing an appropriate modern architecture for Spain.

In his early buildings of the 1960s Moneo was immersed in his critique of the masters; his work was experimental, and thus not yet focused. Each building was endowed with a structure that implied an autonomy that had to be understood and evaluated on its own terms and its own organization without any external references. His architecture was conceived as an autonomous artificial organism

governed by its own laws opposing both modernist functional architecture and Zevi's understanding of organic architecture as predetermined by nature. Since in all these works, the main element under scrutiny was structure, Moneo seemed here to be trying to shift the modernist concept from "form follows function" to something more like "form follows structure."

His first built projects–the Zaragoza factory and a bullfight ring in Pamplona–were a tribute to the masters. In the Zaragoza factory he reworked the Wrightian organic idea inspired by nature with an organic idea expressed by the spatial and formal expressions of the structure, bringing Moneo closer to Aalto's understanding of what constituted the organic. Wright's organic impulse brought nature into the building, imposed the laws of nature on the artificiality of the object, and allowed the complexity of nature to invade the world of construction. Moneo used nature as a metaphor for the internal economy of the structure. The section was the catalyst in the definition of the architectural form. A homogeneous, stable cover was then wrapped around this internal structure to materialize the form.

The Pamplona bullfight ring was an exercise in structure that revisited functionalist and Brutalist architecture, but seen through the lens of the Italian modernist revisions of the 1950s, especially the modernist traditionalism of Gianluigi Banfi, Lodovico Barbiani de Belgiojoso, Enrico Peressutti, and Ernesto Nathan Rogers (of the firm known as BBPR) as manifested in their "Torre Velasca," skyscraper built in Milan in 1958. In both the factory and the bullfight ring Moneo worked with modernist principles and materials that respected the reality and specificity of the commission and its programmatic requirements. Structure was the prevailing element whose formal possibilities were given expression through the design process, a lesson he had appreciated not only in the architecture of his direct mentors, Oíza and Utzon, but also in his studies of the Baroque architect Bernardo Vittone.

The designs of both the Tudela school and the Gómez-Acebo house were

within the tradition of modern architecture–or, rather, of distinct approaches within modern architecture. Both are programmatic buildings in that Moneo synthesized distinct modernist experiences devoid of stylistic references and rich in methodological rigor. The Tudela school encased the Corbusian elemental modernism of a pregnant space in an enclosure that combined Wright's expressionist organicism of the structure with the postwar Italian revisions of Wright through the vernacular of Gardella and Asplund's modernist revisions using history. Similarly, the Gómez-Acebo house fused the Corbusian proposition of the *promenade architecturale* with the circumambulatory procession of the Greek temple, the distilled abstraction of early-20th-century De Stijl aesthetics of the Miesian plan and Wright's realism of nature's organic presence inside through the lens of Aalto's sense of the organic with the classical formalism of Palladio outside, allowing the house to dominate its surrounding landscape.

His projects reflect his teaching position at the School of Architecture in Madrid that presents modern architecture through the lens of Western history. In both buildings modern architecture's emphasis on the object as a personal experience was passed through the filters of the vernacular or the classical tradition that converted the object to a circumstantial reflection of the human condition. In both buildings in the synthesis of modernist elements he experimented with form not as language, as Stirling, Ungers, and Rudolph had done in the 1950s, nor as meaning to be found in the symbolic content of the form, as Kahn had advocated through his architecture in the 1950s - which Moneo had already criticized in 1966, but in the coherence of their structures, which provided the rules for making his formal collage and eliminating anything that did not belong to the organic structure of the form.

In his early projects Moneo sought the invention of form in the recuperation of techniques, which he believed represented the real dimension of architecture that could establish its communication with society without nostalgic allusions to a historical past. Form was conceived as non-representational and

ahistorical.[10] The exterior of his architecture was defined in the container. It was the interior definition of the container through its spatial effects that aesthetisized the program to offer a rich human experience inside as a comment on, or to render homage to the modern cultural tradition. The spatial excess (which proves his affinity with the notion of the sublime and aesthetics), pregnant in the plan and the section, is counterbalanced in the neutrality of the enclosure, or the box, and its detailed construction. Moneo elaborated on already highly intellectual procedures. The dialectic between the phenomenological aspects of a richly designed interior space inspired by modernist experiences and the formal connotations of the tectonics of the structure of the container; form was to be destylized, while space was to enrich life; structure assumed a strategic double role–literally and metaphorically–to fulfill its function and condition the dialectic between form and space.

In conception the Urumea building anticipated Moneo's projects and critical positioning of the 1970s, although in its execution it still adhered to his architectural production of the 1960s–one might consider it Moneo's epilogue to his architecture of that period, during which he had focused on the critique of the masters in his emphasis on designing the object. The Urumea design summarized Moneo's concerns of the 1960s by subordinating form to the laws of structure and construction, thus avoiding stylistic references, and by the use of modernist materials, such as exposed concrete and steel railings on the façades mixed with brick. The Urumea building anticipated his work of the 1970s in its drive to participate in the exploration of broader questions raised by the discipline, such as type and appropriate urban architecture. In its concern with type one could argue that it became an instrumental project for the formulation of his ideas first in his *memoria:concepto* (1969) and then in his essay "On Typology" (1974). In its concern for urban integration it brought a new dimension to the conceptualization

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[10] Moneo, "A la conquista de lo irracional," p. 6.

of the architectural project in his practice: the connection between the individual building and an urban vision.

Urumea's specific circumstance lay in the need for a single work to establish continuity with the existing fabric of the city. The type was the architectural element that responded to a building's particular social reality. Its type pertained to the field of the "artificial, the non-natural," as Moneo wrote in his *memoria:concepto* in 1969. Moneo established the continuity he sought through the interpretation of existing historical types. The full coordination of the architect's work with the existing techniques and local work force offered a typological continuity that did not compromise the autonomy of the architectural work. The singularity of the building was to be preserved in the interpretation of the plan and its formalization in the elevation. The plan transformed an existing historical type so that it could establish a dialogue with the city; the elevations embodied the dialectic between organic expressionism and rationalism within the modern tradition of the object–the individual building, respecting principles that defined the existing city, such as alignment with the street, building heights, compositional rhythm, and so forth. Moneo's insistence on meticulously designing the texture of the façades indicates his refined cultural pragmatism. He returned to this exercise at the Bankinter in the 1970s and the Previsión Española in the early 1980s.

Moneo's work of the 1970s was crucial to architectural production in Madrid in introducing an alternative to a stagnant modernism and in reinterpreting modernist and historical local trends to participate in the wider discourse of the discipline. To the understanding of architecture as construction–"form follows structure"–Moneo added the idea of architecture in the city, which was both a reflection and critique of Venturi's and Rossi's writings in relation to their built work.

In his projects in the 1970s a critical, calculated, clear anonymity and almost industrial rationality prevails over the concealed almost Richardsonian

expressionism of the 1960s buildings. Moneo's years on the academic and professional scene in Barcelona combined with what he learned in the United States allowed him to refine his technique of fusing distinct architectures through the introduction of new ideas into his work. After his trip to America in 1968 his criticism of his contemporaries broadened. Although Rossian urban-architectural theories still dominated his thinking, his built works, Bankinter and the Logroño town hall, are living examples of the impact his exposure to the new world had on his criticism on Rossi's application of theory into practice.

Gregotti and Rossi's work, as both professionals and teachers, testified to Moneo's belief that architecture participates in the formation of culture. This means that the pragmatism of the profession must be supported by a theoretical *raison d'être* for architecture.[11] This belief was strengthened after his exposure to Eisenman's linguistic structuralism. Eisenman was experimenting with abstract proposals of geometric interactions and articulations by creating a map of linguistic expressions in strict correlation with formal operations deprived of any social connotations, which detached form from its meaning. Rossi and Eisenman's commitment to theory guided Moneo in the formulation of a theory of architectural design in his 1969 *memoria:concepto*, a pedagogical document of seminal importance as a teaching guide as well as a critique of architecture's current condition. However, Moneo never again attempted to formulate a prescriptive theory of design. The specificity of the architectural project became his primary concern in both practice and teaching.

In practice Moneo came closer to Venturi's "complexity and contradiction," which prescribed the importance of architectural history in contemporary practice, the tool Moneo used to implement his formal and spatial bricolage over a uniform structure. His bricolage, which sometimes makes reading his work difficult, even tiring, was not caused by an unmeditated sensationalism in selecting from a large repertoire of architectural elements, although some of his

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[11] Rafael Moneo, "Gregotti & Rossi," *Arquitecturas-bis* 4 (November 1974): 1.

Madrid friends referred to the results in derogatory terms such as a "reheated dish" or "an inventory of 20th-century design."[12] He justified it as being a reflective process of selection–knowledge of the history of the architectural project and interpretation, that is, creation/invention of form through synthesis. In a sense, Venturi legitimized Moneo's attraction to an intelligent reading of architectural history in his built production. Moneo's structural expressionism of the 1960s, whereby each project was inspired by a different modernist repertory, allowing the introduction of and experimentation with new techniques and materials tying it to its factual circumstance (program, context, function), was replaced by a more refined understanding of structure and form inspired by neo-rationalism in the 1970s whereby the bricolage of forms deliberately commented on architecture's alleged artificial circumstance (history of modern architecture, history of the site, memory).

In his major projects of the period, the Bankinter building and the Logroño town hall, Moneo dealt with the problem of how to design in the city in specific contexts. Architecture was instrumental in defining the city in two ways: as a tool for transforming its physical environment and as a frame for supporting its social life. Both buildings responded to the specificity of their place and time: Bankinter by advocating continuity within the city responded to the ad-hoc urban interventions that used modernism as a stylistic tool as favored by developers; the town hall by structuring the future development of the city around what would be its principal building and by functioning as an "authentic monument" to democracy and thereby responding to the need to define an urban vision.

Both buildings are of a specific type, but Moneo downplayed the importance of program by subordinating their layouts to the constraints the city imposed upon their sites. Urban encroachments on the site dictated the regulating lines that made the design possible. The definition of the projects depended on the consolidation of the right dynamic between the penetration of the city into the site

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[12] Fullaondo,"Notas de sociedad," *Nueva Forma,* p. 7.

and the autonomy of the building. Once the container was defined, the plan became the protagonist in the design-development phase. In both buildings the architect worked with a type of triangular parti to reflect the dynamic relation of the building to its site: in Bankinter the vertical connection was pushed outside the parti to increase the floor space; in the town hall he worked with interior triangular courtyards and structure to define the space and organize movement. The type was reworked synthetically to reflect the meaning of each project's particular condition.

In the case of Rossi, the use of type as a design mechanism had led either to utopian architectures or to the reproduction of the existing fabric that eliminated novelty and creativity. Moneo used the constraints imposed by the city fabric to rework the type and create the form. Modern architecture was able to incorporate a historical type and thereby reestablish its connection with the history of the discipline. Historically, the type as a convention could not be denied; but as a design tool it could participate in, but could not drive, the design process. Moneo's projects of the period relegated the concept of type to secondary importance.

Moneo circumvented the danger of falling into historicizing solutions by maintaining the modernist compositional mechanisms of design in the development of the building. His endorsement of Siza's non-stylistic understanding of modern architecture in the 1970s confirmed his willingness to work with modern architecture as an instrumental device, its formal repertory submitting to the transforming powers of the method. The superimposition or juxtaposition of diverse languages met a variety of demands in different parts of the project, but it also introduced an impurity that could undermine the coherence of the initial idea. This formal contamination, however, is absorbed by the solidity of the structure and the uniformity of materials that reestablish the building's unity.

In both Bankinter and the town hall the dominance of structure over form is expressed in the abstraction of the container and the exhibitionist effect of local interventions: in Bankinter in the design of the main façade; in the town hall in the

orchestration of space and movement of the interior patios. Whereas in Bankinter Moneo checked the possibility of a harmonious marriage between distinct architectures that were part of the city's patrimony, in the town hall modern architecture was used as the counterpart to the existing city's architecture in its claim to stand out as the city's symbolic monument to the future expansion. Monumentality was not based on premeditated historical or atemporal ideas that imposed order through the primordiality of form. On the contrary, monumentality would result from a contemplation of the reality of the architectural project, its connection with the city, the design process and its construction.

Bankinter and the town hall are Moneo's most programmatic buildings in that they reflect his theoretical investigations of the time. As projects of the 1970s they are representative of what was intellectually his most fertile period and reflect his ability to transfer the critique he had already presented through his writings into the reality of the building. In the 1970s he interpreted reality through his critique of Rossi's understanding of architecture as construction not in terms of structure and building (an idea that is clearly manifested in Moneo's built projects since the 1960s), but as "an act on the basis of reason, not, as one might think, to materialize thought."[13]

In the 1960s and 1970s Moneo called for an architecture that could bring back the city's lost coherence. Coherence did not mean imitation or reproduction; it meant acknowledging and collaborating with other architectures in the context and specificity of the site. Modern architecture had the capacity to absorb languages, distill or reject trends to renew its principles, and to reflect the reality of the present condition.

By the end of the 1970s it was clear that Moneo had already started acknowledging the city as a fragmented reality, a melting pot, the "meeting point of diverse architectures, where the burden of the representation of the city was left to the architect,"[14] an approach to the contemporary city that had already led to the

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[13] Moneo, "Aldo Rossi: The Architecture of the City and the Modena Cemetery," p. 20.
[14] Moneo, "A mi entender," *Arquitectura*, p. 55.

phenomenon of post-modernism. The project for the Banco de España raised the question of the replica *à l'identique*. Moneo insisted on continuity, but continuity in the city was an unrealistic notion, considering the multitude of architectural styles and the degree of its urban fragmentation that had already taken place. Coherence could be achieved internally in the project. Moneo's proposal, which suggested a historicist approach rooted in post-modernist procedures, would have been criticized as mannerist, so instead, he formulated a proposal that stretched modernism's tolerance for inclusion to its limits. Formal aesthetics, imagery, and academic formulas that preserved the memory of the vanishing old city were converted to type and rule in the name of coherence; he tried to recover the idea of coherence within the architecture itself. The idea of discovering, recovering or reviving the logic of classical composition as a mechanism that governed the design was not felt by Moneo to be a historicist regression, but an appropriate mechanism for design. His architectural solution depended upon a thorough knowledge of and intervention into the history of the site.

Although the Bankinter and the Banco de España are located only a few blocks apart on the Paseo de la Castellana, Madrid's main circulation spine, they have been described as two projects having nothing whatever in common.[15] This is not quite true, however, for they share the role history plays in the definition of what is modern about his interventions, in this case Moneo's respect for the 19th-century city. In Bankinter it is expressed through the dialectic of the preservation of the old and in the metaphor of the new; in the Banco de España it is through surrendering to its proper laws.

In the Bankinter, form was entailed in the structure. In his efforts to complete the proposal for the Banco de España, Moneo tackled the problems involved in constructing a replica. Both buildings were designed as an extension of existing historic buildings, and both designs were based on the premise that they

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[15] José Quetglas, "La Hermandad Postrafaelista," *El Croquis* 20 (April 1985): 13.

had to respect the history of the city and acknowledge the history of the site. In the Bankinter, the extension meant dialogue with its surroundings; in the Banco de España it meant completion. The Bankinter reworked a modern vocabulary with a classical predisposition; the Banco de España used the laws of classical composition to complete the replica. The Bankinter represented modernism as an opportunity to converse with the past by mixing Venturian elements of contextualism with an Aaltian interpretation of the monumentality displayed in the architecture of Madrid in the late 1940s. The Banco de España avoided any dialectical subtleties of open-ended conversations to offer a closing statement about a century-long intervention.

For a brief time Moneo had aligned himself with Rossi's ideas about how the city's lost coherence could be restored, but his projects of the 1970s testify to a shift in favor of the city's variety. Moneo analyzed each project's circumstance to define his design. He did not stick to a specific language; his loyalty always remained with the consolidation of the building's place in the city and its history. His tenacity in connecting the form to the mode from which it was produced was what made his ride through the postmodernism of the 1980s such a rewarding and personally fulfilling experience.

Moneo's return to Madrid in 1980 was timely. In his professional experience and exposure to the discipline of the previous twenty years he had established for himself a synthetic theory of design and he had consolidated his alliance with the modern project. His next commission, the Mérida Museum, dealt with history most directly. The problems did not really change; they just became denser and more intense. The Mérida Museum not only epitomized Moneo's theory of design from the 1960s to the 1980s in its synthesis of the architecture of the object, in the city and in history, but also made his name–with its completion, he emerged into the limelight of the international architectural community.

The Mérida Museum is the unadorned container of all that is Roman in its

structural plurality interspersed with modernist spatial additions. Moneo used construction–structure and materials–as his main tool for synthesizing its elements. He had always experimented with the capacity of materials to establish the relation between structure and form. His trip to Greece in the early 1960s to study its classical architecture showed him that its poetic form was achieved in the perfection of the use of material. The Gómez-Acebo house translating timber construction into concrete and brick was another experiment in this line of thinking. In his first modernist projects of the 1960s he experimented with the structural strength and formal possibilities of new materials, such as iron and reinforced concrete. These projects led him to the study of the evolution of the wooden frame to the iron and concrete reticular structures of the 20th-century teaching him the expressionist possibilities of the structure. The selection of materials that secured permanency in the work of architecture was meant to avoid visual or aesthetic modernist stereotypes and allow form to be expressed in the objectivity of its construction. Brick became the preferred material in his investigation.

In the early projects structure is "sincere." In the 1970s the material is used both literally and metaphorically. From the Tudela school to Bankinter to the Mérida Museum, Moneo elaborated on the use of brick, as a self-bearing structural material; the concrete structure was always treated as if it were accidental. In the Mérida Museum, Moneo demonstrated a poetic value in the construction of the structure that could become the origin of the architectural form. He found a way to achieve coherence between structure and form, construction and architecture, without having to refer to principles such as modernity's "function" or "program" or post-modernity's literal reproduction of earlier architectures. These principles are based on the strength of the refinement of structure to define form. The form is defined in the dialectical, abstract transformation of existing structural elements. Architecture constitutes itself in the material world by being constructed.

The architecture of the Mérida Museum posed the problem of extension,

which Moneo viewed as inclusion in its relation to the history of the site and the city. By inclusion he did not mean simply an addition or preservation or transformation that would place the building in a specific historical moment; he meant an interpretation of the history of the city and its monuments. What attracted him was not the city's form or image, but how it was built in distinct historical periods. The memory of the Roman and medieval cities was inscribed on the plan; the city's monuments were imprinted on the sections; and both defined the structure of the building. The Mérida Museum was engaged in a conversation with history that went beyond comments on fragmentation and diversification as Moneo had expressed them in the Bankinter and the Logroño town hall. Here history provided the repertoire of elements that fed the process of creation and the invention of the form, providing both its freedom and its limitations.

The museum as a building type is both old and new. In the 1980s it emerged as a reaffirmation of society's unquestionable link with its past, redefining our attitude toward the course of history. The Mérida Museum was the ideal commission for Moneo to comment on current trends; he transcended his elaborate mechanism of design based on the idea of reabsorbing actual and artificial circumstances, the design mechanism he had mastered in his buildings of the 1970s. In the Mérida Museum he interpreted history, using structure and form as a meta-language. The building was not only integrated into the city fabric; it was also a metaphor for the city. He went beyond the design and construction of a museum to integrate it to the intensity of the history of the place. The Mérida Museum became the paradigm on how modern architecture could be incorporated in the historical project of Western architecture. Modern architecture was used not only for its formal or spatial advantages as a linguistic tool, but for its experimentation with techniques and building programs both as a constructive tool and a frame of mind. Modern architecture was once again connected with its origins, and Moneo could claim to have achieved an architecture of permanence

within the project of modernity. The Mérida Museum is a tribute to Spanish architecture.

In the clarity of its constructive elements, the museum reflected the dialectical, synthetic, creative skills of its architect. As demonstrated in Richard Meier's modernist Museum of Arts and Crafts (1981-85) in Frankfurt and Stirling's post-modernist Staatsgalerie (1977-85) in Stuttgart, Moneo's contemporaries believed that modernity either had to be restored or reinterpreted by representational imagery using history as a manual of forms. In the Mérida Museum, Moneo sought instead to reinvent the project of modernity not only in the solidity of its construction, but also and mainly in the dialectic between distinct architectures. In this building Moneo resumed his former struggle against the monumental. The "generic" character of his buildings of the 1970s, which conceived of the building as a reflection of the city, denying it its right to form, was replaced in the early 1980s by a celebratory architecture, representative of all Spain. History had become the new element that defined architecture's circumstance, and Moneo aimed to incorporate the knowledge history made available, not as style but as method. This was an idea he had been striving to capture in his architecture since the Zevi lectures of his formative years, and which he had recently identified in the architecture of Sir John Soane and sought to embody in Mérida:

> The anxiety that Soane felt in the last minute in front of the knowledge of the history of architecture–a discovery of his century–was, for Kaufman, simply an occasion to use the material that [history] makes available, which inevitably leads to eclecticism. . . . if something is of value in Soane's work, it is his intention to give to romantic architecture a way out, linked not so much to a style as to a method. . . . With his knowledge of history, he could have used the sources directly, preferring them to the tormented road of the unknown. . . . The greatness of Soane lies precisely in having accepted the new situation that brings him to use

history, without falling in the trap of converting it into a nostalgic vocation.[16]

In Mérida Moneo offered a dialectic between history and the place. He used history not only at the figurative level (structure, scale, proportions, materials), but also at the operative level (the medieval city versus the Roman ruins, contrast between Roman construction and modernist spatial effects). From the point of view of formalizing a theory of design that dealt with the problems of public architecture in a historic urban setting, the Mérida Museum is instructive. It exemplifies the method of historic analysis Moneo followed to determine structure and form that guaranteed the rights of the old and the exigencies of modern taste at the same time. But repeating that elaborate mechanism of design he had achieved in Mérida and modifying it to fit the needs of subsequent projects brought it to a near impasse.

The Previsión Española presented a similar problem: it too was about architecture in a historic urban setting. Moneo tested the possibility of using the same mechanism of design, reorienting his focus from the structural aspects of the building to the figural. The richness of the main façade, which was the result of an exhaustive design, attracts all the attention (when this was criticized, Moneo defended it on the grounds that it conveyed the cultural richness and appropriateness of the main façade and its connection with the Torre del Oro and the architecture of Seville), overwhelming aspects of the building that spring from the treatment of the plan and the back façade that are equally important and closer to Moneo's sensibilities.

The Previsión Española (along with the extension of the Atocha Railway Station in Madrid) was the last of the Spanish projects Moneo completed before he

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[16] Rafael Moneo, "Prólogo," to *Emil Kaufman, La Arquitectura de la Ilustración, Barroco y Posbarroco en Inglaterra, Italia y Francia,* (Barcelona, 1974): xvii.

left for Harvard. It is a building rooted in a specific tradition and culture aligning it with the programmatic character that Moneo's buildings had exerted until then. In its façade Bankinter had addressed its context to create a dialogue with the past; the Previsión Española surrendered to its context for inclusion. In Bankinter the simulation of a self-bearing wall in brick where its concrete structure was an accident was meant to be a celebration of the material; in the Previsión Española the architect displaced the concern for the strength of the material to the figurative possibilities of its texture. Moneo's technique of attaching the building to its artificial circumstance (history of the city and site) had assisted him in most cases in the past to renew his approach to the project and avoid reiterations that would allow his critics to label his architecture.

From the Tudela school, where the city offered the context for the definition of the container, to the Previsión Española, where the 19th-century city overwhelmed the building's main façade, Moneo had exhausted the idea of the city as the driving force for his architecture. Teaching, writing, competitions and the uninterrupted commitment to produce an appropriate architecture for the newly but not yet modernized Spain of the Spanish years of Moneo's practice are densely interwoven in the Mérida Museum. In the mid-1980s Moneo was one of the best prepared Spanish professionals, both as an architect and academic, to participate in Spain's Renaissance, as well as to represent the country at the international level. His academic and built work of the next five years (the Harvard years, 1985-90) became the precursor for the internationalization of his practice in the 1990s. At a first glance, one could argue that in the Harvard years Moneo renewed his approach to the project, to redefine its circumstance to fit his critique of the emerging trends. However, it is the strong foundation of the reflective and methodological rigor of his practice of the Spanish years that helped him to incorporate the new once again and maintain the integrity of his practice intact.

With regard to the graphic representation of the architectural project,

Moneo approached the project with the conviction that "buildings once finished take on a life of their own," an attitude that frees him from overattachment to his work and instead attaches it to construction. Freed of obsessions with possession and protection, the "final reality of the building becomes the authentic aim of the work rather than process. It is the building's materiality that is the unique and exclusive concern."[17] In the *Memoria: concepto*, Moneo argues that the architectural project must be based on the analysis of its social reality and from this analysis will emerge, first, the "elements of architecture" and then the methodological base for their use.[18] In this statement he defined the essence of the architectural project as an intermediary in the process of producing the building away from its representation.

When Moneo started his practice in 1965, he had already experienced the process of producing the architectural project in Oíza's and Utzon's studios. In 1968 he praised Utzon for maintaining an exemplary consistency in the commitment he showed in the translation of competition drawings to building, construction, and techniques for the Sydney Opera. Moneo had participated in the development of the project from competition drawings to construction documents and had observed how the materiality of the construction affected the drawing–an example that would be very appropriate to bring up in the study of El Kursaal. This personal experience was strengthened in the reading of Pareyson's aesthetic theory of how the work of art is produced.

From idea to construction the process of making involves the act of drawing as the intermediary step in the definition of form. According to Pareyson, the architectural drawing is not an end in itself, but part of the process that is conceived progressively to "reduce the possibilities as they are realized" and

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[17] Moneo, "The Solitude of Buildings," (1985)

[18] Rafael Moneo, "Memoria:concepto," in "*Oposición a la Catédra de Elementos de Composición en las Escuelas Superiores Técnicas de Arquitectura de Madrid, Barcelona y Sevilla*, (Madrid, November 1969), p.37.

"bring pregnant forms to maturity."[19] Form is also inseparable from the material that realizes it. Thus for Moneo for the architectural project to achieve formal maturity, it "should involve above all the knowledge of construction."[20] This knowledge should be incorporated into the drawing in order "to start the process of the formal invention that ends in architecture."[21]

Construction involves materials, techniques, and close collaboration with the work force, the builders. The drawing acts as the intermediary between the architect's idea, the building and the builder: it assists the architect in realizing and refining his idea and establishes communication between architect and builders. The drawing is therefore both a heuristic tool in the architect's hand and an informational tool that establishes communication between the parties involved in the construction. It ensures the architect's dominance in the working group, a strength Moneo detected particularly in the drawings of Wright and Scarpa.

In the 1970s Moneo argued that the project in its graphic representation contains the future reality:

> The drawing is the first construction of architecture. When the architect draws, he is already constructing his architecture. . . . Reading the drawing as a first proper and concrete reality can be done with a certain autonomy; an autonomy that is more obvious when the architect looks at it as a finished reality in itself rather than being a simple intermediary.[22]

However, Moneo strongly believes in the representational strength of the drawing: it connects ideas and design decisions with physical construction and explains organization and construction in terms of the specific knowledge that the architect has.[23] The drawing should not only be a conventional tool mediating between the architect's idea and the building; it should also contain the idea of the building. It

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[19] Pareyson, "La contemplación de la forma," *Conversaciones de estética*, p. 29.
[20] Moneo, "The Solitude of Buildings," (1985)
[21] Ibid.
[22] Rafael Moneo and Juan Antonio Cortéz, *Comentarios Sobre Dibujos de 20 Arquitectos Actuales* (Barcelona: ETSAB, 1976), p. 44.
[23] Rafael Moneo, "El ejercicio de la profesión," *Quadernos d' Arquitectura y Urbanisme*, 146

should not even be restricted to a pictorial representation of the idea; it should be an active agent in the definition of form. It should absorb the idea, refine it and bring it to maturity. The drawing should not only explain the nature of the project; it should reveal the knowledge of the designer–that is, who the architect is.[24]

As an intermediary, in Moneo's practice drawing is the essential means of communication between the architect and the exterior world. As for the philosopher or the historian the text is the indispensable tool for expressing thoughts, for the architect drawing is the indispensable tool for seeing. Drawing becomes the architect's eyes and mind. It accurately represents the mind's work, but it also possesses a dynamic of its own where ideas are simultaneously represented and transformed, interpreted, and appropriated.[25] Drawing possesses an Aristotelian dynamic where philosophy, art, and science coincide to reorganize the perception of the exterior world, an Aristotelian everchanging, phenomenological world as opposed to a Platonic ideal, transcendental one. Drawing "connects design decisions with the physical world of construction,"[26] as opposed to being circumscribed by a detached reality of its own. Drawing represents a social mechanism that defines conflicts and relationships and acquires cultural and historical value. This dynamic relationship is expressed in the immediacy of translating ideas about buildings from the first sketches to the accuracy of the analytical description of the building on the plan, to the reflective richness of the synthetic axonometric vision.

How much of all these qualities that Moneo has talked about or has identified in other architects' work are detectable in Moneo's own drawings? Moneo's ability to draw (both free hand sketches and perspectives and technical drawings) remains his strong ally in the studio and in his major competition entries where presentation drawings such as perspectives are all his (figs. 12, 26, 89, 99). Drawing and sketching is an affinity he had before enrolling in architecture, a skill

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(May-June 1981): 40.
[24] Rafael Moneo, "Carlo Scarpa. Pintor veneciano," *Arquitectura* 247, (March-April 1984): 19.
[25] Rafael Moneo, "Preface," *HYPNOS: Massimo Scolari*, (New York: Rizzoli, 1984), p. 2.

he developed during his entry exams at the university and a practice he identified with the production of the architectural project ever since. Although the immediacy of the idea in Moneo's project is contained in sketches and perspectives (figs. 49, 74), it is in the plan, elevation, section and axonometric that he entrusted the analysis and synthesis of form in the production of the architectural project.

Each drawing participates in the dynamic conception of form absorbing the circumstances of the object as local interventions. The plan absorbs the program and serves as the base for the dialectic between structure and the typological elements–staircase, windows, walls, doors–to occur. The elevation outlines the container and takes care of the envelope. The section explores the container's interior to re-create the artificiality of the exterior world and install the sensation of the organic indoors. If the plan and elevation are Moneo's indispensable tools in the design process–his necessity, the section is his inspiration–his freedom.

Moneo understood the plan and the layout of plans as the unfolding of the program, as a disposition in which the geometric circumstances that determine the limits of the intervention and the obligations of the practice that the construction imposes are resolved without contradiction. The plans are not laid out as a pure sequence of planes, which are then judged on the base of formal criteria established a priori or as a simple spatial discourse dictated by experience. The layout of the plan seems to be supported by typological considerations, which he submits to a rigorous analysis in order to achieve their definition with strict requirements, such as the order of the relationships of proximity and contiguity of the areas, or of the system of circulation or of independent elements that are inserted afterwards. To try to bring together this model for the functioning of the building, which is already known, with the circumstances that the geometry of the site imposes and its construction is the problem that Moneo sets himself.

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[26] Ibid.

The elevation acts as a non-representational screen that addresses the revetment of the structure, the texture and materiality of the form. When Moneo draws the plan and the elevations, the first impression lies on the dialectic between the horizontal and the vertical plane; however, it is the impact of the section on and within these horizontal and vertical planes that interests him more.

In both the Tudela school and the Gómez-Acebo house the desire to control the form in the structure of the building is expressed directly in the drawing. The extroverted expressionism of the plan and elevation of the early competitions (Plaza de Obradoiro; figs. 9, 10, Opera House in Madrid; fig. 11) is transformed into the introverted expressionism of the section in his subsequent Spanish projects. The drawings of the Tudela school (fig. 21) and the Gómez-Acebo house (figs. 27,30, 34) experiment with the kind of objectivity and reality of construction whose possibilities although yet to be tested portray his intellectual explorations with ideas and materials in the creation of form. However, the synthetic rigor of his critique of the masters displayed in the plan, elevation and section, already contains signs of the drawing being produced through a complex understanding or integration of the empirical implied in the structure and use of materials and the theoretical implied in the modernist critique.

An analysis of the drawings for the Tudela school as they were developed from a real commission to a competition project also shows that Moneo did not regard drawing as an end in itself, but as the mediator between the architect and the different parties involved. The cut-axonometric reflected the architect's concern with form and materials as they condition construction to inform the client and the builder. The one-point perspective is a conceptual drawing (figs. 26). It represents the architect's vision of space to speak for the architect in front of the jury. It is a representational means of coordinating the functions of the various parties involved, but also of refining, evolving, and completing the architect's vision from its formal conception to its construction.

In the projects of the 1970s Moneo viewed the building through its dialectic with the city, using the site as the moderator. This was not done merely

on the conceptual or formal level; it had a decisive impact on the methodology of the project as well. On the formal level, the container of the 1960s lost its compact form. The encroachment of the city on the plan allowed for a fragmented conception of the form, the building came together in the joining of its elements. In the case of Bankinter the typical study of the building in plan, elevation, and section was not sufficient to resolve volumetric problems and problems of contiguity. The limitations of the site demanded a rigorous manipulation of the elements, achieved by studying successive models (figs. 48, 60). In Logroño the vastness of the site allowed for greater dispersal of the elements, which eventually created formal weaknesses at the joints.

With regard to structure and form, the elements maintained the same constructive principles of the early projects: post-and-beam concrete structure covered by a uniform material that maintains a plain formal definition on the exterior allowing for spatial experimentation indoors. In both Bankinter and Logroño, the liaison with the city produced a design hypothesis that changed the role of the plans and elevations or, better, contaminated the plan and increased the representational options of the elevation. The importance of the object was acknowledged in the subsequent development of interior spaces as reflected in the sections. Both plan and elevation were given a double role: the plan allowed the city to penetrate the site while addressing the program's layout, and the elevation represented the dynamic exchange between the city, the site, the building and the history of architecture and responded to the programmatic dispositions of the plan.

The elevation, instead of being subordinated to the plan, became an equally important element of the design that could exert a transforming, enriching power over the plan and keep the creative process alive for a longer period of time. The section, in its turn, retained its mystical power to create modernist spatial effects in the interior. The section's modernist exuberance was used locally and internally, but it had not yet acquired the power to intervene and transform the container. In the process of refining particular interventions Moneo returned to the plan to verify the viability of the solutions. The plan and section remained essentially modern;

the elevation absorbed the critique of the modern.

The distinction between the role of the plan, the section and the elevation in the project consolidated a mechanism for designing that culminated in the Mérida Museum. The sketch plan captured the idea (fig. 74). The building was projected from the whole to its parts, using the plan, section, and elevation and was reassembled from its parts to the whole using axonometry.

In the early 1980s Moneo not only used the modern as his "working material" in his projects to establish a dialogue between the new and the old, as he did in the 1970s; he extended himself to an interpretation of the historical repertoire contingent on the context and circumstance of the project. His uncanny joining of distinct architectures at the structural level resulted in a built form devoid of pretentious, superfluous formalism. In the earlier projects the plan and the elevation were the moderators of the dialogue between the container and the city in past and future, and the section took care of the autonomy of the container in the present. In the Mérida Museum there is a complete collaboration between plan, section, and elevation exhausting every possible communication with the history of the city as the bearer of memory literally and metaphorically (figs. 75, 78, 84). The plan is the moderator between the city, the site, and the container; the sections absorbed the city's monumental proportions within the container; the elevations assumed the iconographic burden of accurately representing the materiality of the building; and the axonometrics synthesize constructive experience and memory to make a spatial experience dedicated to the city whose result this constructive spatial experience is of.

It was in axonometry that Moneo sought to clarify the building's power to metamorphose historical connotations and evocations into a work of abstract rigor, so that space, light, texture, and proportion would combine to make a stimulating experience. He adopted the bird's-eye and the frog's eye views in his cut axonometrics, which combined partial plans, sections, and elevations to stress their atemporality (figs. 87, 88). It was not the first time that Moneo used axonometry to join elements to describe the object. Usually he would construct paired

axonometrics that complemented each other (Bankinter, Logroño). By drawing them in pairs he introduced temporality into their mode of presentation, in lieu of the usual static description of the object. Axonometry provided him with a formal abstract language and also with a precise tool. It was the engineer's medium for designing machines. Axonometrics contained Moneo's vision of the "art of building." It was a tool that allowed for a clear reading of structure, materials, form and space. It avoided subjectivity by dissociating itself from human scale and allowing measurement.

The cut axonometrics of the Mérida Museum were directly linked with the representational theories of Auguste Choisy in his *Histoire de l'Architecture*; in it Choisy did not mention axonometry, but he drew everything in that form. The provision of partial but multiple views through one drawing derived from his understanding of the use of axonometry as an anatomical model to show systems of construction instead of details. In the axonometric of fig. 87 the bird's-eye view cuts into the main nave and focuses on the poetic spatial effects inside the container. In the axonometric of fig. 88 the frog's-eye view is cut beyond the nave to show the systems of construction. The view starts in the basement where construction and the articulation of elements are best represented. These drawings go beyond their usual function of providing information to reach the poetic. Their structure as tilted and floating objects expresses Moneo's pleasure with clean, pure drawings, and a preference for tilted spaces almost to the point of obsession.

In the Previsión Española Moneo used the same mechanism of design which he had refined before he designed the Mérida Museum: that is, he absorbed the distinct architectures of Spain to create a contemporary building that would be at ease with its modern programmatic functions and public role in the city. The stylization of the façade indicates an inquiry for innovation and renewal in the interpretation of architectural repertories discovered in the building's vicinity. What in the Banco de España was considered completion in constructing the

replica *à l' identique*, in the Previsión Española became an experiment in interpreting composition–an obsolete mechanism of design, not as nostalgic revivalism, but as an acknowledgement of the importance this mechanism of design had once played in the history of architecture. What in the Mérida Museum was considered innovation–construction *à la romaine*–had, by the Previsión Española, become familiar: Moneo called it "the construction of texture."

To construct the texture he had to give preference to the elevation over the plan. It was not the first time the wall was given special attention or was studied separately from the plan. In Urumea the façade was a modernist interpretation of the typical ornamental 19th-century street façade based on the concept of the purity of materials and memory of modernist experiences. He used a similar technique of interpretation through association with Bankinter to connect the main façade of the new building with the façade of the preexisting *palacete*. In both buildings he had used the context subtly to extract rules and conventions that could become a part of his design process without compromising the building's contemporaneity. In the Banco de España the completion of the façade restored an anomaly in the formal history of the construction of the building–an internal affair.

In the Previsión Española the architect's concern to depersonalize his architecture by attaching the building to the city surpasses previous methodological operations to come close to figurative composition. In his publications of the Previsión Española, Moneo insisted on including the series of elevations he drew to reach the final one, as if the process were more important than the final result. In its representation Moneo seems to have been caught up by the process, a concept he has always criticized. But still, in its totality, the attention given to the tracing of the plan layout to complete the city wall and the section with its modernist spatial effects indoors allow the building to maintain all

the elements that define Moneo's Spanish projects until 1985.

This analysis demonstrates how Moneo's philosophy of design connects the text, drawing and building on the premise of merging the factual and the circumstantial with the historical and theoretical in the making of the architectural project based on critical analysis and reason. In the first 20 years of his practice (1965-85), Moneo developed a philosophy of design resistant to a-priori dogmatisms and prescriptive theory. His is a philosophy of design that is always ready to absorb the unpredictable in the reality of the project and yet consistent with and respectful of the knowledge of the discipline. Over the course of his career, Moneo has built a systematic architectural practice that fuses experience with receptivity of the new, knowledge with reality, modernity with history, structure with form. The concept of the building is extracted from its history and place. It is through the dialectic between the history of the place and the building that the invention of form is realized. For Moneo the reality of architecture lies in its construction. Moneo understands "architecture as construction" not in Rossian terms, that is, in theory as a mental activity, but empirically as a vocation. For this vocation Moneo finds the best model in the medieval stonecutters who were not contaminated by the generalization of theory but still had the intellectual curiosity and capacity to collect the findings and knowledge of their work and preserve history in theory derived from praxis.

Postscript

By 1985 Moneo had consolidated both his academic and professional practice in Spain based on a coherent philosophy of design that combined knowledge, experience, intuition, and intellectual independence. His students were fascinated with his liberating pedagogy. His clients were attracted to his visionary yet pragmatic approach to building. The architectural press was puzzled by his capacity endlessly to renew his approach to the architectural problem in which his academic appointments also had a critical impact. His five-year appointment as chairman at Harvard's Graduate School of Design in 1985 gave him international academic prominence and increased the volume of his professional practice as well.

The "American projects," as Moneo calls the projects he worked on while at Harvard in the late 1980s, although all of them were in Spain (see Appendix A), signaled investigations into architecture as an object that stands alone and is produced to be revered almost as a work of art. This new architecture is tied to its site rather than to its context or the history of the city. The site claims the building and connects it to its reality, relegating context to second place, and removes any representational connotations or interpretations of the past. These objects reflect the flowering of a late modernism that values non-figurative, carefully detailed representation that is conceptually strong in the expression of a dominant idea and mature in the use of design mechanisms extracted from an alternative use of the modern. In that respect, in the late 1980s the drawing becomes more minimalist, elemental and informative as it was fused with the representational power of the model, beginning in the early stages of the design process.

El Kursaal, San Sebastián (1990-99; fig.97), which won first prize at an international limited competition, a competition Moneo entered while working on his first auditorium in Barcelona (1988-94), is one of his landmark buildings of this period. It reflects the adaptability of his philosophy of design to influences and new ideas gained during the transitional Harvard years and is the precursor of the

expansion into the international market of his practice in the 1990s. A brief analysis of the Kursaal project combined with two essays he wrote on American architecture in the early 1990s can serve as an introduction to an overview of Moneo's post-Harvard (1990-present) architectural production, locating thus his early Spanish work with regard to his recent production.

In the autumn of 1989, the San Sebastián City Council had invited seven architects–Arata Isozaki, Norman Foster, Mario Botta, Rafael Moneo, Juan Navarro Baldeweg, Corrales, and Luis Peña Ganchegui–to participate in a preliminary competition for a cultural center on a site located at the mouth of the Urumea river on a piece of land reclaimed from the sea by the construction of a sea wall in 1919 (fig. 98). The program called for an auditorium seating 2,000 people for concerts, opera, and ballet; a smaller multipurpose hall seating 500, another concert hall seating 1,000, plus 2,000 square meters of exhibition space and service areas, for a total of 11,700 square meters. Moneo's entry was designed in two weeks in Cambridge in a small office that he maintained, using his Harvard students as assistants. In judging the entries, the jury was to consider coherence in the relationship between geographical and urban context, organization, and the symbolism of this type of design in the city.

Moneo's entry dealt with the question of the architecture of place, not just as an extension of the urban scheme, but as part of the landscape. Moneo approached the project by exploring, "listening to the murmur of the site," and interpreting the site. "No building should be erected that destroys the presence of the Urumea river," Moneo declared. Since the Kursaal site sat on reclaimed land, it was a geographical accident and it was to be preserved.[1] It certainly invited no architecture that would incorporate it into the city: the site had to be given back to the sea. The concept Moneo came up with was of the two prisms in the form of glass rocks sitting on a platform. It was bold, straightforward and abstract, consisting of two floating, randomly placed glass cubes like tilted rocks, alone, distant, silent. The auditorium

was built on the axis of Monte Igueldo and the concert hall on the axis of Monte Uría; they sit on a platform that continues the horizontal line of the sea and joins the sea to the city (fig. 99).

El Kursaal is a tribute to Moneo's masters, but it also merges successfully his earlier concerns with new ideas and influences. In it Moneo reworks Utzon's concept of the platform as the base for the building, Aalto's theme of the auditoria as nuclei from where the building emerges, and Le Corbusier's *promenade architecturale* as the organizer of movement. The earlier concerns–tying the building to its site, the relationship between form, structure and construction, giving life to a building beyond the architect's intervention–were enriched by the will to design the object using artistic procedures as a personal response to the art of creation.

El Kursaal brings back images of the architecture of Utzon's Sydney Opera. Moneo himself has characterized the Sydney Opera as the architecture of "the platform, the horizontal plane which established the necessary distance from the medium to be able to construct the public space."[2] In el Kursaal the platform, as part of the landscape, is designed as open space for public use, forming a section of the pedestrian walk between Monte Igueldo and Monte Uría. It becomes a transition space between the sea coast, the river bank and Zurriola Avenue, and thus both a landscape and an urban element (fig. 100). As part of the building, the platform acts as a container and provides access to the complex from Zurriola Avenue, which is the meeting point of the complex and the city. It also receives all the programmatic functions of the building (exposition halls, meeting rooms, restaurants, supporting areas for the auditorium and concert hall) and allows continuity between the halls connecting the main areas (fig. 102, 103, 104).

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[1] Rafael Moneo, "Memoria," in "Seis propuestas para San Sebastián," *El Croquis* 43 (1990):17.

[2] Rafael Moneo, "Sobre la arquitectura de Jörn Utzon: apuntes cordiales," *Jörn Utzon*, Catalogue from an exhibition on Jörn Utzon's work (Madrid, 1995), p. 19.

To Aalto's Finland Hall (Helsinki, 1962; fig. 101) Moneo owes the idea of the free-standing contained space embraced by the container–the extrusion of the two prisms over the platform. It adheres to Aalto's concept of the concert halls as the nuclei around which the building grows where the site line defines the limits of the building. The contrast between the autonomous tilted rocks and the compactness of the platform gives the desired presence to the auditorium and the concert hall. Moneo explains that the prismatic volumes are lightly inclined to give the impression that they are falling towards the sea, thus "participating in the geological accident of the site" (figs. 102).[3] The auditorium and concert hall are inserted as wooden prisms into the glass prism in asymmetry and in suspension.

Moneo reworks the theme of the *promenade architecturale* in the conversion of movements in the auditorium. The platform emerges from the sea with a series of richly textured side walls of the platform covered with the same dark gray granite infill as the reclaimed land sliced and placed randomly (fig. 107). The platform is accessible from the sea and the city. Apart from the main entrance on Zurriola avenue, there are side entrances from the platform that lead to the lower level of the main foyer. It is in the foyer that Moneo's design culminates at a celebratory ascending procession.

One of the first decisions Moneo made was that the glass rocks were to be, not transparent surfaces, but translucent masonry. The outside surface of the glass is therefore textured like fluting on a classical column. To make his statement even more pronounced, Moneo did not design the glass surfaces as curtain walls. Instead the section of double glass–designed with a metal structure–gives them the quality of bearing walls easily accessed and able to withstand the harsh weather conditions that can plague this city:[4]

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[3] "Rafael Moneo: Kursaal - Centre Culturel," *Le Moniteur- Architecture A.M.C.* 22 (June 1991):40.
[4] Rafael Moneo. "The Murmur of the Site," *Anywhere,* 2nd conference at Jufuin, Japan, June 9-11, 1992, p. 53.

> The glass block converts the volume into a dense, opaque mass, which reflects light and changes over the course of the day and is transformed into a mysterious attractive source of light at night. The glass block will undoubtedly provide the construction with the distant, abstract conditions we are striving for.[5]

The exterior façades of the translucent cubes are considerably more abstract than the interior ones. The inside-faced glass panels are supported on steel mullions that are covered with a thick wooden liner that stresses the horizontality of the joints (fig. 109) and challenges the most commonly used curtain-wall technologies with its customized heavy construction. The glass revetment of the inside face of the outer prism contrasts to the wooden paneling of the outer face of the inner prism. It is a tactical move to indicate not only the change of function between the two prisms, but also to provide an interplay of spatial perceptions where materials and texture become the main protagonists. The dense brightness of the glass wall creates an ambiguity that denies clear definition of whether the foyer is part of the landscape or belongs to the building. The deliberate asymmetry of the two prisms (figs. 105, 106) and the horizontality of the joints in the construction of both glass and wooden surfaces create a strong directional perspective (fig. 108, 110) that leads the visitor from the lower to the upper levels of the foyer through staircases suspended in the space between the two prisms, from where the views of Monte Ulía and the sea are spectacular.

The building shows both an affinity to and critique of American minimalism in the materialization of form. Although El Kursaal seems to demand a description and explication that draws on practices outside architecture, namely sculpture and minimalist art, its materiality and construction mechanisms connect it back to the discipline of architecture. The materialization of El Kursaal exemplifies Moneo's critique of Cobb's John Hancock abstract minimalism of the curtain wall. The artistic strategies he uses place his work closer to Gehry's elemental architecture of the "work

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[5] Moneo, "Memoria," p.17.

of art." However, Moneo's Kursaal extends Gehry's abstract elementarism[6] to give more specificity to the building and attach it to its site.

If the glass prisms impress us in their expressive, sculptural positioning as a new landmark for the city and a novelty in Moneo's design, it is the spatial exuberance and impeccable material definition of the interiors that bring the project back to what Moneo knows how to do best: work on the particular, the elemental, the space in-between, and the local. Although the model captures the idea, the plan and the section remain his most important tool for defining the architecture of the building. Elements such as stairs, lobbies, corridors, and vestibules–all the transitional devices–articulate the dispersed positioning of the auditoria with voids, movement, and the fluidity of the exterior container.

The history of El Kursaal's construction belongs to another study. The project is presented here solely to demonstrate the mechanisms Moneo used to redefine his practice in the late 1980s; that is, to receive and integrate the new of the Harvard years, without undermining the solidity of his practice. His earlier concerns with an architecture in the city that captured the need to redefine modern Spain without compromising its history and traditions were enriched with the exploration of architecture as sculpture attached to its site/landscape designed to announce Spain's readiness to export the renewed modernist object to specialized, sophisticated international markets. Spain was once more the testing ground.

In the 1990s the search for a paradigmatic architecture appropriate for Spain acquired new dimensions as Moneo's practice expanded abroad and he had to face the double task of complying with the new realities of his practice and the constant evaluations of his production by the press. In his projects of the 1990s Moneo returns to the extroverted expressionist architecture of his formative years. This time it is a controlled, mature expressionism that breaks the container locally to bring together the program, the site, materials and invention of construction with the invention of form.

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[6] Rafael Moneo, "On Two Concert Halls: Gehry versus Venturi," Walter Gropius Lecture, April 25,

However, there are several strong constants that keep unity and continuity between the Spanish and international projects: first, his adherence to the Ortegan principle of working within the project's circumstance; second, his alliance with Luigi Pareyson's principle in that the invention of form cannot be separated from its construction; and third, the appropriation of his own circumstance in bringing his education, formation, academic and professional experience into a synthetic understanding through his built work. The soundness of his Spanish production and his uncanny ability to adopt new trends and respond critically to them through his work doubled the volume of the commissions he received in the 1990s compared to the first 25 years of his practice and expanded his professional activities in the United States.

In the early 1990s Moneo was either working on or had completed projects on both sides of the Atlantic. To evaluate the American ones, in which he tried to capture the new culture through a feeling for the site and place, one must first examine how he perceived American architecture at that time. His Gropius Lecture at Harvard (April 1990) and his article on the American pavilion at the Venice Biennale (1991) represent this position. He thought Venturi's architecture was all veneer, catering to image and memory, whereas Gehry's architecture captured the vastness of the American landscape and the chaotic aspects of places such as Los Angeles. Gehry's architecture ranges from the necessary to the contingent.[7] In the American pavilion Moneo evaluated the "Eisenman object" as "the most elaborated product of post-industrial culture, prepared to include and exploit new technologies"[8] and the "Gehry object," as the result of a personal, careful manipulation, the "testimony to the value that liberty of the individual still has the creator's mark."[9] Both represent for Moneo "the deepest beat of their country's architectonic culture."[10]

1990, (Cambridge, Mass: Harvard University Graduate School of Design): p. 22.
[7] Ibid., p. 30.
[8] Rafael Moneo, "On the American Pavilion of the Venice Biennale 1991: Peter Eisenman and Frank Gehry," *Arquitectura* 290 (January 1992): 51.
[9] Ibid., p. 52.
[10] Ibid., p. 48.

In his examination of American architecture Moneo focuses on language and representation. Developing a language has become the way individual practices prevail in the competitive international market because it is a means of identifying an architect's work and differentiating one architect's work from another. Moneo resists its use, however, and has remained faithful to a non-representational architecture, arguing that in the wider phenomenon of globalization that he defines as "unreal" and dominated by the media[11] but inevitable, an architect cannot export his own language to another society or culture by claiming that it is valid in any situation. Architecture is exportable because of the solidity of the thinking behind it and not because of its identification with a specific language or style.[12]

His alliance with and critique of his American peers coincided with his return to the architecture of the object. His interest in non-representational architecture does not mean that Moneo is not concerned with or attracted to a formal conception of the building. To the contrary, along with his critique of his colleagues' conception of an architecture of fragmentation, he explores an architecture of "compactness": "I am interested in exploring systems of continuities that can produce a closed figure or volume and give me extreme freedom to operate on the organization of the internal space." [13] Instead of provoking the viewer from the outside, his buildings retain their silent posture towards the city to unfold their real story of being–true architectural texts for the discipline–in their interiors.

Where does Moneo's architecture stand compared to those of a Meier or a Gehry? Meier and Gehry, Moneo says, are asked to export their architecture from America to Europe as commodities:

> Richard Meier always uses the same language because he always attracts the same type of clients and that is what they demand. I am sure Meier's clients in Europe look at the American Meier and buy the American product in the same

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[11] Moneo, Gropius Lecture, p. 9.
[12] Alejandro Zaera, "Conversaciones con Rafael Moneo," *El Croquis*, 64, 1994, p. 23
[13] Ibid., p. 13.

> way as they would buy an American car or choose American designer clothes. In the case of Gehry, where style seems to be secondary but the way of handling the components is not, the same phenomenon prevails: people buy a Gehry and bring a Gehry to Barcelona, but they do not ask Gehry to build in Barcelona.[14]

With statements like this Moneo challenges his clients and critics to evaluate his work not as an ephemeral commodity, but as a cultural product that is built to last and respond to its requirements. He is trying to reassure them that his buildings are attentive to cultural subtleties and will not overwhelm their users with extravagant personal representations. Moneo's international intellectually oriented clients–museum directors, university administrators, and so forth–have been willing to go along with this reasoning about the nature of things and his insistence on depersonalizing his architecture and attaching it to a wider tradition. They have also accepted the experimental nature of the project and the subtle statements he chooses to make about the site, culture, and architecture at large that so often define his works and their non-representational character.

With international recognition comes pressure to innovate and to be original, to be visible and to advertise oneself. It has become the norm among architects of Moneo's prestige and caliber to publish an illustrated, high-quality book of their works with a brief history of the firm. Moneo, reluctant in principle to submit to self-promotional activities, has succeeded in postponing this project for the time being, although he recognizes the demands the market is imposing on him to produce it. While he may eventually give in, he remains busy for the moment both with challenging commissions and competitions–he has had a considerable success in acquiring commissions through competitions (of 6 first prizes, 4 became international commissions), which has also added to his visibility and to his reputation for remaining at the edge of the practice–and with the publication of his first book on

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[14] Ibid., p. 22.

particular architects based on his annual lectures at Harvard's Graduate School of Design over the past ten years. He has chosen to write on seven–James Stirling, Aldo Rossi, Robert Venturi, Frank Gehry, Peter Eisenman, Alvaro Siza, and Rem Koolhaas–all his contemporaries and long-time friends and the measure by which Moneo has assessed his own academic and professional work since the late 1960s and 1970s.

In his reading of their careers Moneo finds what he thinks has been the driving force behind each one. He stresses the fact that each of them approached architecture from a different perspective, and that in itself demonstrates the individualism and pluralism of current architectural culture. He looks at Eisenman's work, not for its formal commitment that negated a socially driven architecture, but for his love of and commitment to theory; at Stirling's work, not for his neo-expressionist bent, but for his attentiveness to the development of postwar architecture; at Rossi's, not for his Marxist neo-rationalism, but for his attachment to an urban theory for architecture; at Venturi's, not for his populist approach to architecture, but for his interest in history; at Koolhaas's, not for his technological aesthetics, but for his undeniable pragmatism; at Siza's, not for his sensitivity to surrounding circumstances, but for his non-will to style; and at Gehry's not for his elementarism, but for his generation of form through construction materials.

To all seven, whose work for Moneo epitomizes postwar architectural culture and represents the paradigm for the younger generations, Moneo responds with a pronounced rejection of formalism and style, proposing instead a fusion of models that combines the technical expertise of the medieval master builder with the theoretical knowledge and historical consciousness of the Renaissance architect and the modern sensibility of the contemporary architect, an ambitious goal toward which he progresses through a continuous refinement of his skills. His critical academic view of these distinguished men will no doubt prove his capacity to position himself in the discipline through his underlying critique of which his buildings of the 1990s once more become living proof.

APPENDIX A

COMPETITIONS

1960: Armchair - 1st prize
1961: School center, Soria
with José Maria Castro-Martinez, Julio Enrique Simonet Barrio, Antonio Sanchez Martinez-Conde
1962: Plaza de Obradoiro, San Sebastián, Rome Prize
1962: Restoration Center, Madrid - 1st prize, with Fernando Higueras
1962: project in Asua-Tal, Vitoria, with Carlos Ferrán
1962: mercado de Caceres
1964: Spanish Pavilion for New York International Fair
1964: Banco de Vizcaya, Bilbao
1964: Opera House, Madrid
1965: Inn at San Rafael de Aralar

1966: Extension of Bullfight Ring, Pamplona - 1st prize

1966: National competition for school project - 1st prize

1968: Town hall, Amsterdam, 2nd phase, 2nd prize

1969: Autonomous Universtity, Bilbao
with Francisco Javier Sáenz de Oíza

PROJECTS 1960-69

1964-67: Factory Diestre, Zaragoza

1965-67: Housing in Tudela, Navarra
1966: Confecciones Gallego, Zaragoza
1966: Confecciones Gallego, Tudela

1966-67: Extension of Bullfight Ring, Pamplona

1966-68: House Gómez-Acebo, Moraleja, Madrid
1966-71: School in Tudela
1967-68: House in Cortes, Navarra
1968-70: Housing, Pamplona
1969-73: Urumea housing, San Sebastián
with J.Marquet, J. Unzurrunzaga, L.Zulaica

COMPETITIONS

1970: Renovation of Zaragoza's historical center - 2nd prize,
with Manuel de Solá-Morales

1972: Eibar square- 1st prize

1973: Stock Exchange Building, Madrid
Limited competition

1974: Headquarters for Altos Hornos de Vizcaya
Limited competition
1974: Huesca Congress House - 3rd prize,
Ramón Bescós
1975: Galerie Theo, Barcelona - FAD prize,
with Elias Torres

1977: Housing project for Cannaregio, Venice
Limited competition

1977-79: ACTUR in Lacua, Vitoria,
1st prize for block 10, with Manuel de Solá-Morales
Limited competition

1978: Banco de España - 1st prize
Limited competition

PROJECTS **1970-79**

1970-72: House in Santo Domingo, Madrid
1970-75: Plaza de los Fueros, Pamplona,
with Estanislao Cuadra Salcedo

1971-79: Housing Paseo de la Habana,
Madrid, with Ramón Bescós

1972-77: Bankinter, Madrid
with Ramón Bescós

1973-81: Town Hall, Logroño

1976: House Lirón de Robles, Madrid

1977-79: Masavew Art Galerie, Madrid

COMPETITIONS

1984: Festival Palace, Santander
1984: Olympic Ring in Montjuic, Barcelona
with Javier Sáenz de Oíza
1984: Prince Albert Palace, Berlin
1985: Seville EXPO Pavilion
Limited competition
1985: Bicocca project, Milan
Limited competition
1985: Campo di Marte, Giudecca, Venice
Limited competition
1986: Imperial Stables, Vienna
Limited competition

PROJECTS **1980-89**

1980-86: Museum of Roman Art, Mérida

1980-88: Banco de España, Jaén

1982-88: Previsión Española, Seville

1983-92: Colegio de Arquitectos, Tarragona

1984-92: Atocha Station, Madrid

1985: House Cerdá, Pozuelo de Alarcon, Madrid

1986-93: Manzana Diagonal, Barcelona, with Manuel de Solá-Morales

1987-92: San Pablo Airport, Seville
1987-93: Auditorium, Barcelona
1989-92: Museum Thyssen-Bornemisza, Madrid
1989-93: Fundación Pilar y Joan Miró, Palma de Mallorca
1989- : Residence of Spanish Ambassador in Washington, D.C.

COMPETITIONS

1990: El Kursaal, San Sebastián, 1st prize
Limited competition
1990: Cultural Center and Concert Hall, Lucerne
Limited competition
1990-1991: Museum of modern art and architecture, Stockholm, 1st prize

1991: Baluard de San Pere, Palma de Mallorca
1991: Artists' Studios in Cranbrook Academy, Detroit
1991: Cinema Palace, Lido, Venice, 1st prize

1992: Potzdamer Platz, Berlin
1993: Le Pole et la Bibliotheque universitaire, Amiens, France
1993: Museum of modern art, Zaragoza
1994: O.P.C.W. Building, La Haya
1994: Opera House, Cardiff, Wales
1994-95: Tate Gallery extension, London, finalist
1994: Railway Station, Helsinki - 2nd prize
1995: Hertziana Library, Rome

PROJECTS 1990-95

1990-99: El Kursaal, San Sebastián

1990-97: Cultural Center, Don Benito, Badajoz

1991-97: Museum of modern art and architecture, Stockholm
1991-93: Davis Center, Wellesley, Mass.

1997- : Artists' Studios in Cranbrook Academy, Detroit
1991-2000: Museum of Fine Arts, Houston, Texas
1991- : Chivite Winery, Arenzano, Navarra
1991: Confederación Hidrográfica de Guadiana, Mérida
1991-98: Town hall extension, Murcia
1991-94: Refectorio del Monasterio de Sta Maria de Guadelupe, Caceres
1992-97: Oficinas para Red Electrica, Madrid

1993-98: Office Building, Potzdamer Platz, Berlin

1993, 1999- :Housing, Parking and Repaving of Santa Teresa Square, Avila

COMPETITIONS 1996-2000

1996: Our Lady of Los Angeles cathedral, Los Angeles - 1st prize

1996: Prado museum extension, Madrid, finalist

1997: Multipurpose Sports Ring, Caceres
1997: Steinenberg Theater, Basil, Switzerland

1998: Prado museum

1999: Business School, University of Chicago

PROJECTS 1996-2001

1996- : Our Lady of Los Angeles cathedral, Los Angeles

1996- :Bazaar of Beirut, Lebanon
1996- : General Archives of Pamplona
1997- : Mothers and Children's Hospital, Madrid
1997- : Arenburg Campus Library, catholic University of Louvain, Belgium

1999- : Housing, The Hague, Netherlands

2000- : RISD Center, Providence, R.I.

2000-01: Prado museum, 3rd phase

	COMPETITIONS	PROJECTS from competitions	PROJECTS
1960-65	10 4 - 1st prizes		
1965-70	4 2 - 1st prizes	1	9
1971-80	9 3 - 1st prizes		7
1981-90	7		12
1991-95	14 4 - 1st prizes	4	9
1996-2000	6	2	7
TOTAL	50	7	42

APPENDIX B

ESCUELA TECNICA SUPERIOR DE ARQUITECTURA DE MADRID

Relación de temas para la Oposición de elementos de Composición

1 - Reiteración de edificios en conjuntos urbanísticos
2 - La supertextura del edificio y su relación con la estructura
3 - Historia resumida de la ventana, sus tipos y sus múltiples funciones
4 - Techos y suelos: diferentes formas en relación con su funcionamiento psíquico.
5 - El elemento patio como ordenación espacial de vida.
6 - Evolución histórica del espacio
7 - Utopía y diseño arquitectónicos: análisis histórico.
8 - La tradición moderna en arquitectura, exposición histórica desde un análisis de la teoría de composición.
9 - Elementos de composición y análisis formal en la arquitectura Racionalista.
10- Elementos de composición y análisis formal en la arquitectura Utópica
11- La arquitectura como Arte y Necesidad.

APPENDIX C

Programa de Elementos de Composición

Catedrático: Rafael Moneo Vallés

Esquela Técnica de Arquitectura de Barcelona, Noviembre 1972

Introducción:

1. Elementos de Composición: actualidad de la asignatura; Su significado en el presente Plan de Estudios.
2. La idea de proyecto; la figura del arquitecto.

Elementos de Composición y Metodología:

a) El proyecto como una teoría general de la forma: una revisión de los Elementos de Composición clásicos.

3. Las teorías funcionalistas.
4. La arquitectura desde el nivel perceptivo: las propuestas puro-visuales.
5. La arquitectura desde el nivel perceptivo: nuevas aproximaciones al problema.
6. El modelo orgánico: el principio de la coherencia.
7. El modelo orgánico: teoría de las proporciones.

b) El proyecto como resultado de un proceso de producción.

8. La arquitectura como artefacto, como forma compuesta: su conexión con el "system engineering".

c) El proyecto como operación lógica.

9. Las ideas de Christopher Alexander.
10. Hacia un diseño sistemático: diversas alternatives.

d) El proyecto como construcción lógica deducida de la realidad: una nueva aproximación a la idea de Elementos.

11. Especificidad de la forma arquitectónica: el concepto de tipología.
12. Necesidad de explicar la evolución de los tipos.
13. La tipología como base de partida para el proyecto.

Un instrumento para el control de los Elementos de Composición descritos, permitiendo así la operación del diseño: arquitectura como lenguaje.

14. Arquitectura y lenguaje.
15. Las arquitecturas clásicas como lenguaje.
16. Arquitectura y sociedad: el nivel semántico.
17. Arquitectura y construcción: el nivel sintáctico.

Hacia una comprobación del diseño: encuentro arquitectura-medio

18. La arquitectura como sistema: el paisaje.
19. La arquitectura enfrentada al medio con el minimo consume de energia: la arquitectura espontánea.
20. La arquitectura enfrentada al medio aceptando el consumo de energia: la nueva tecnología y la idea de arquitectura.

Fig.1 Francisco Cabrero and Rafael de Aburto. Casa de los Sindicatos, Madrid (1949)

Fig.2 Javier Sáenz de Oíza. Torres Blancas, Madrid (1961-68)

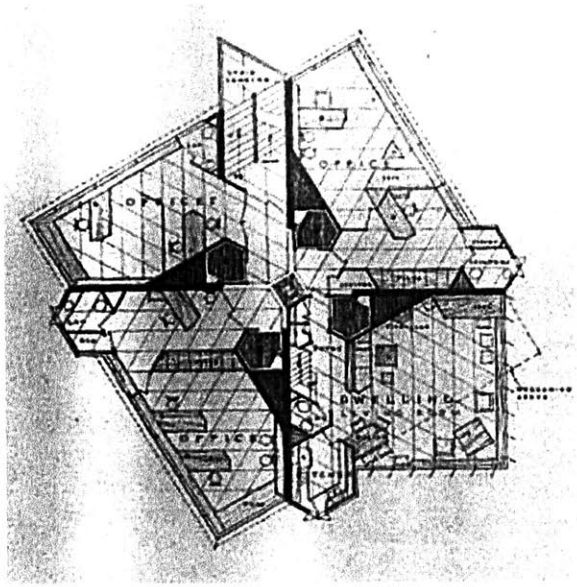


Fig. 3 Frank Lloyd Wright. H. C. Price Company Tower, Bartlesville, Oklahoma, (1952-56)

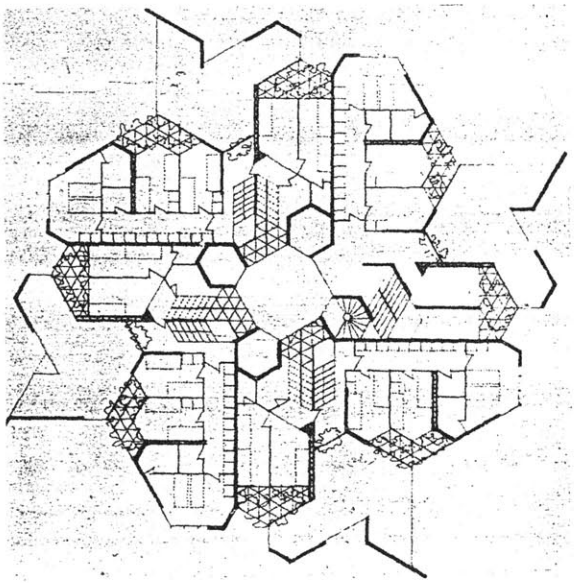


Fig. 4 Javier Sáenz de Oíza. Torres Blancas, preliminary sketch, (1961-68)

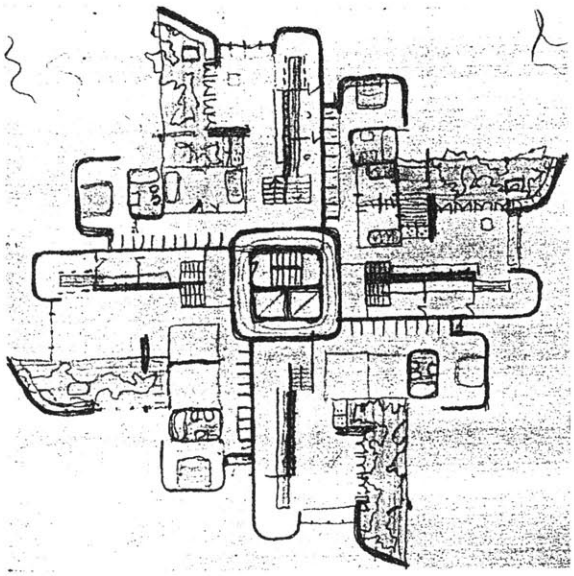


Fig. 5 Torres Blancas, preliminary sketch

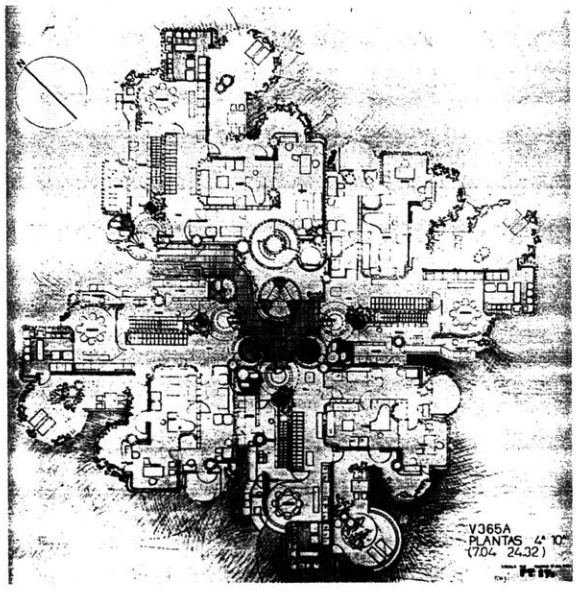


Fig. 6 Torres Blancas, final typical plan

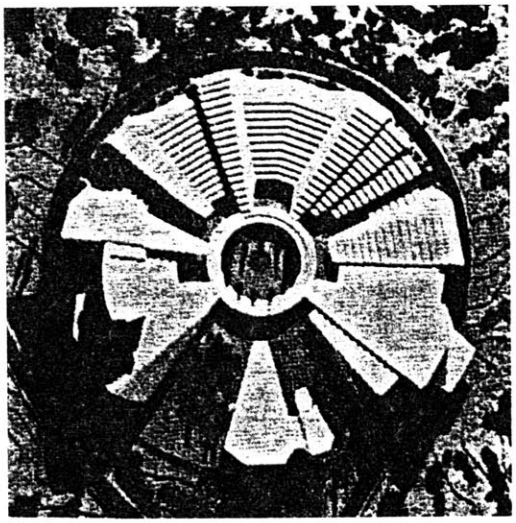


Fig. 7 Rafael Moneo & Fernando Higueras. Restoration Center, University of Madrid, Competition, 1st prize (1962)

Fig. 8 Fernando Higueras & Antonio Miró. Restoration Center, built project, (1965-81)

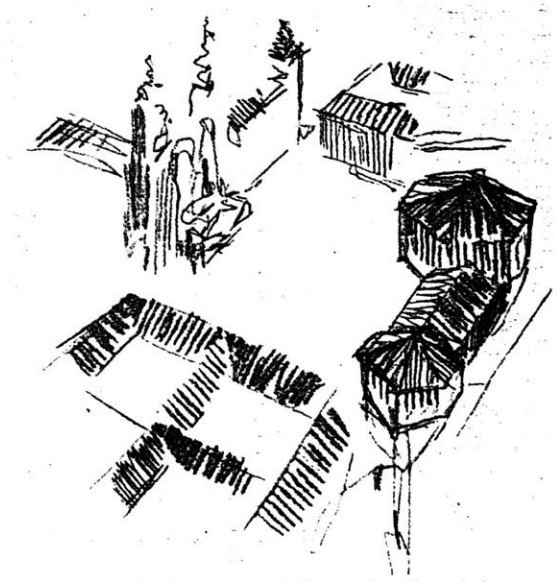


Fig. 9 Rafael Moneo. Plaza de Obradoiro, competition, 1st prize, Spanish Academy of Rome (1962), sketch

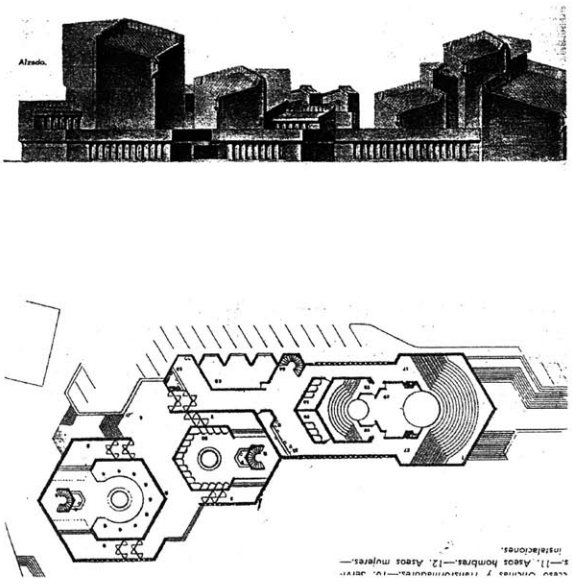


Fig. 10 Rafael Moneo. Plaza de Obradoiro, elevation and plan

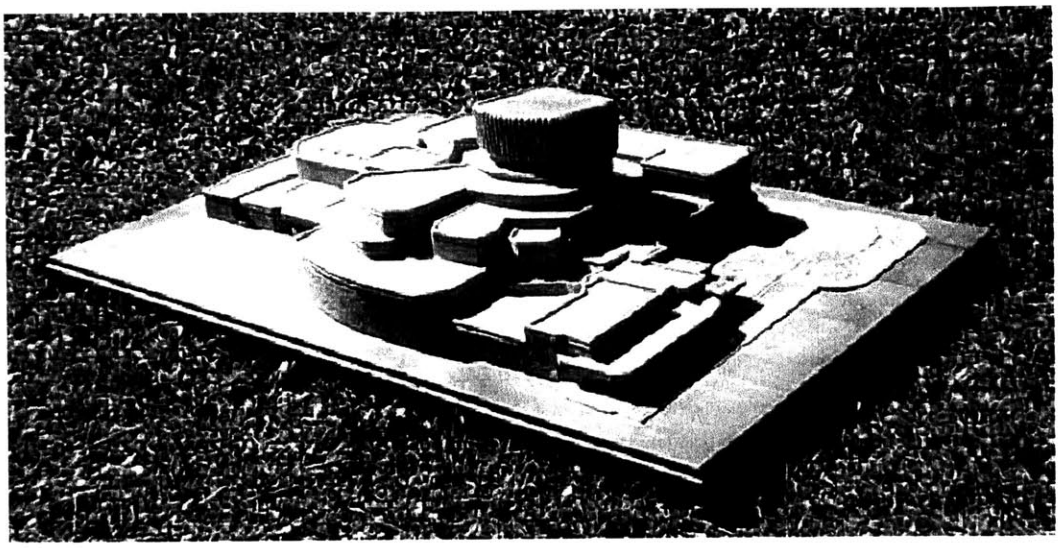


Fig. 11 Rafael Moneo Opera House, Madrid, (Competition, 1964)

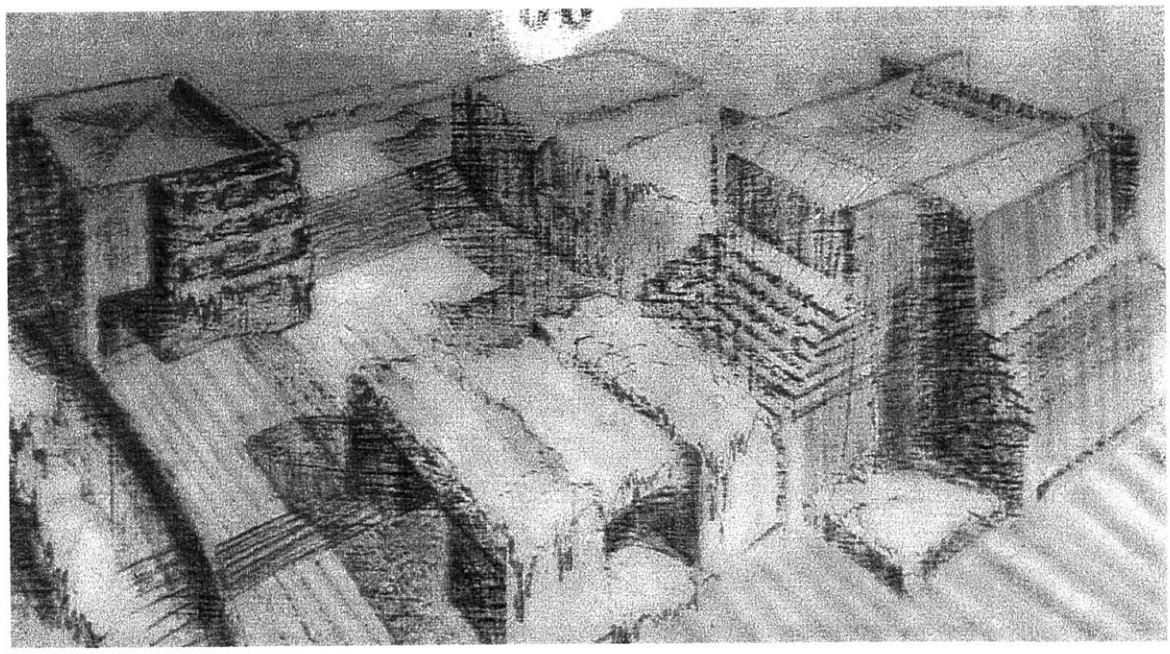


Fig. 12 Rafael Moneo Spanish Pavilion for the New York World Fair, (Competition, 1964)

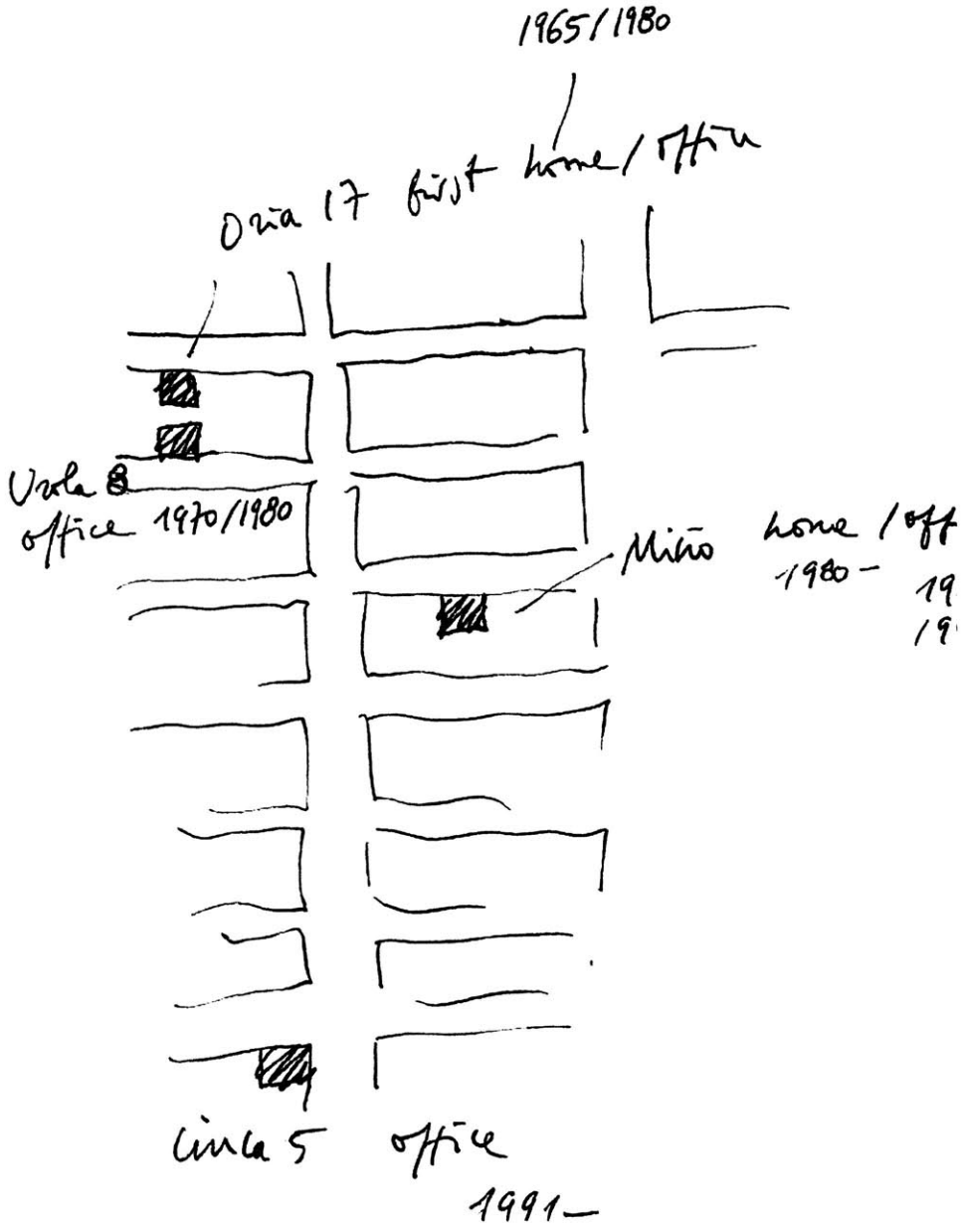


Fig. 13 Rafael Moneo. Studio locations, El Viso, Madrid (2001)

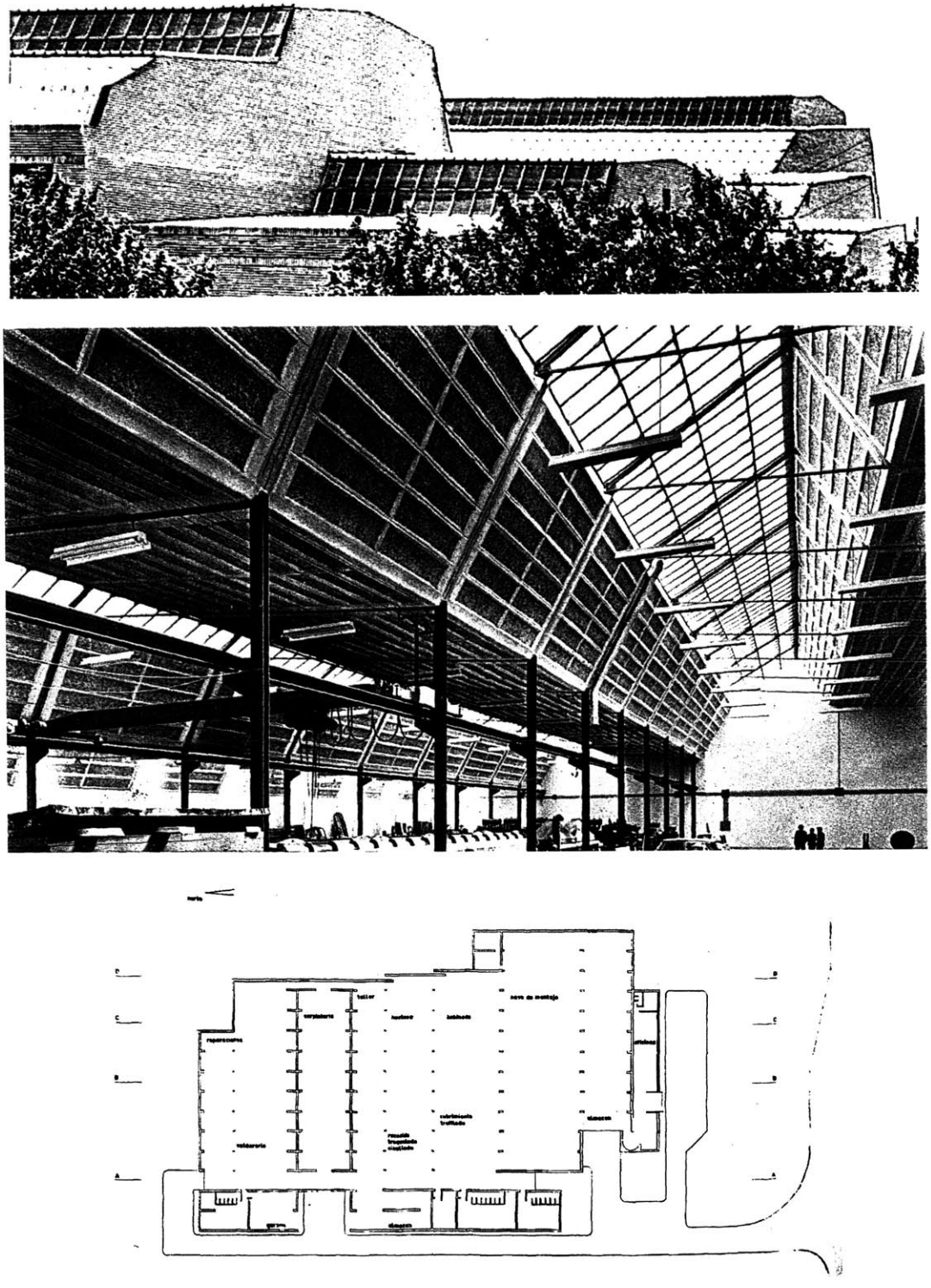


Fig. 14 Rafael Moneo. Factory Diestre, Zaragoza (1964-67)

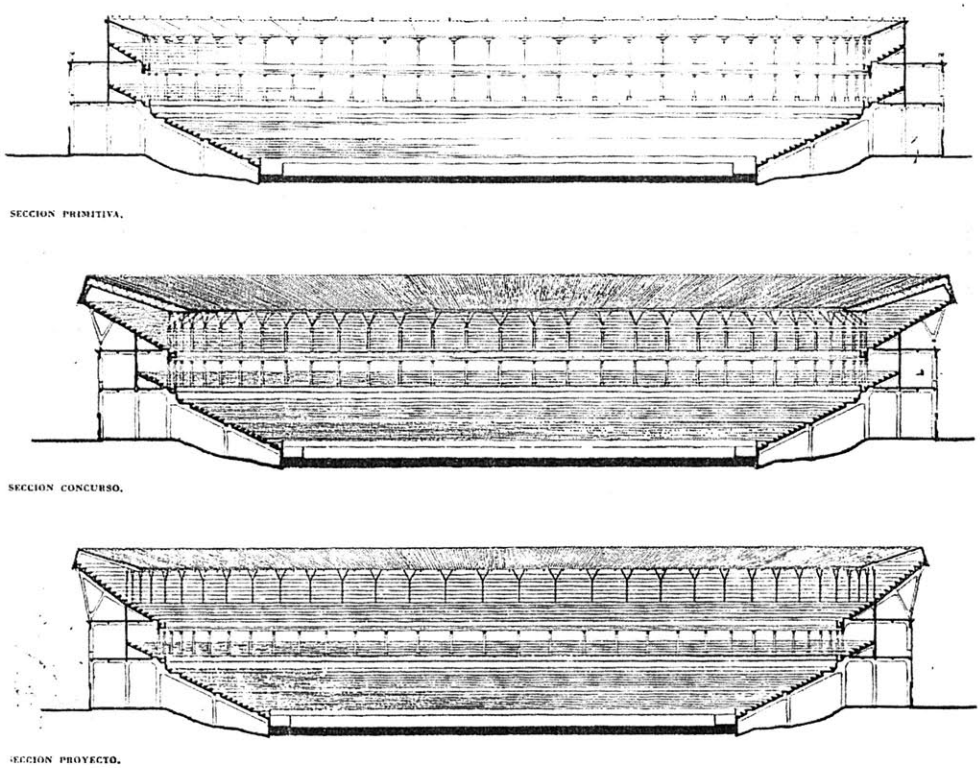


Fig. 15 Rafael Moneo. Bullfight Ring, Pamplona, sections: original, competition entry, construction drawing.

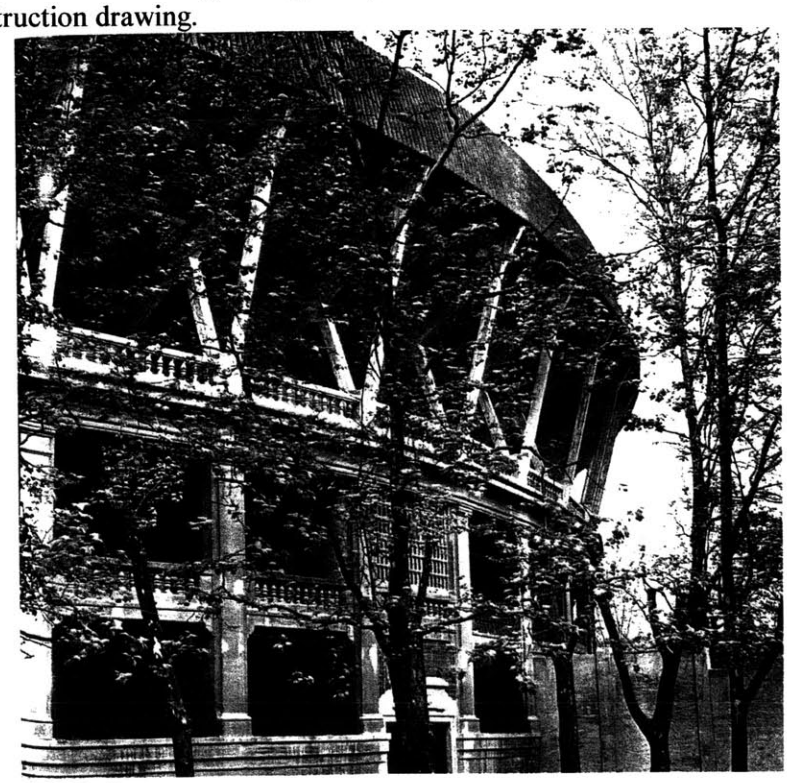


Fig. 16 Rafael Moneo. Bullfight Ring, exterior partial view

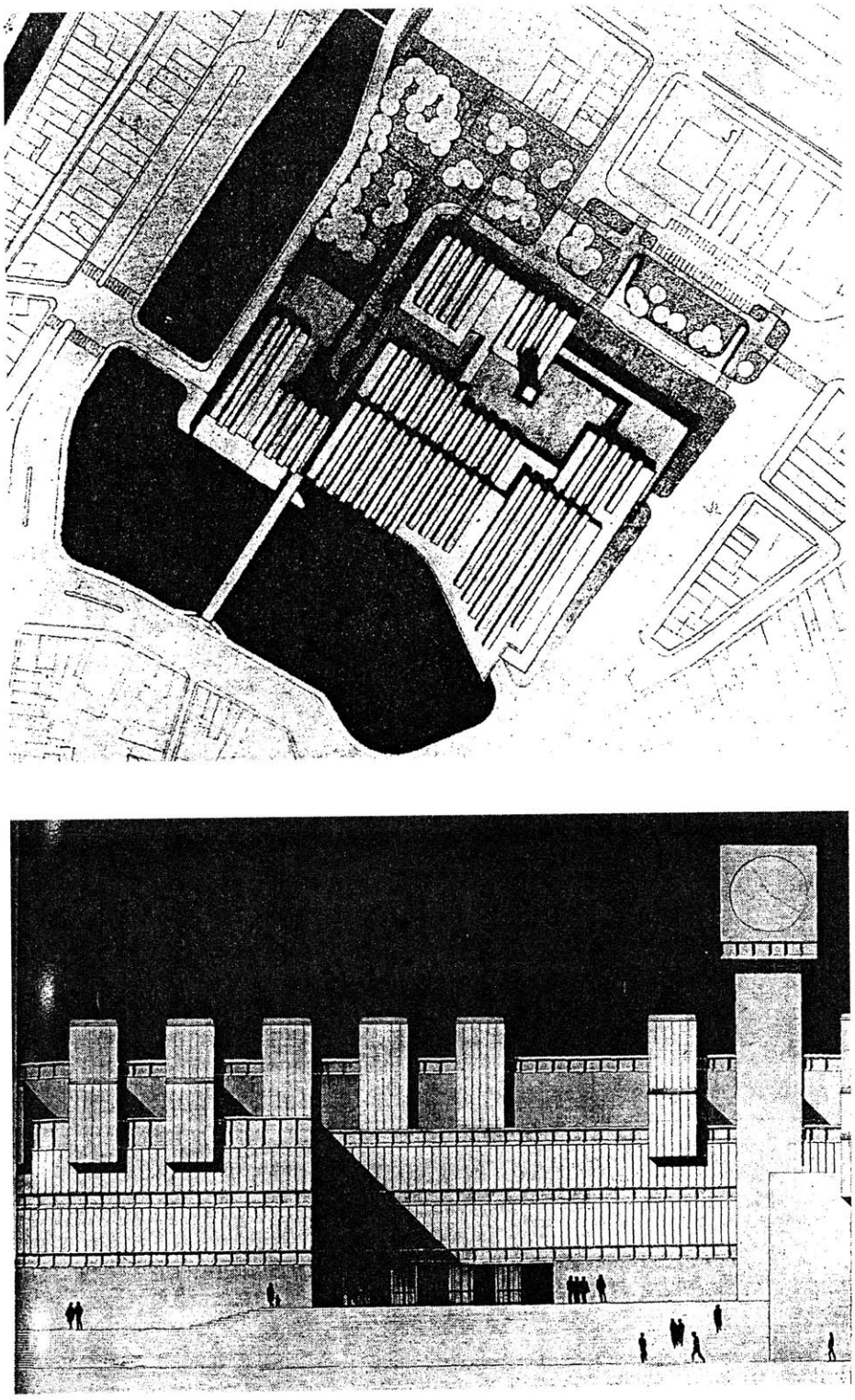


Fig. 17 Rafael Moneo. Town hall competition, Amsterdam (2nd prize, 1968)

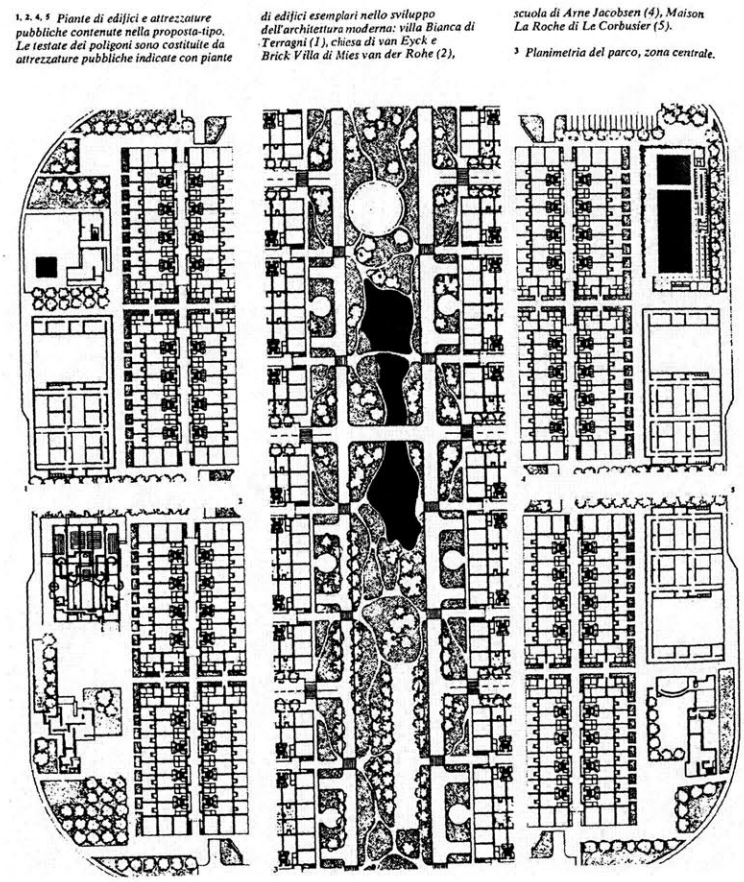


Fig. 18 Rafael Moneo & Manuel de Sol·-Morales. Plan ACTUR for Lacua, Vitoria, (Competition, 1977)

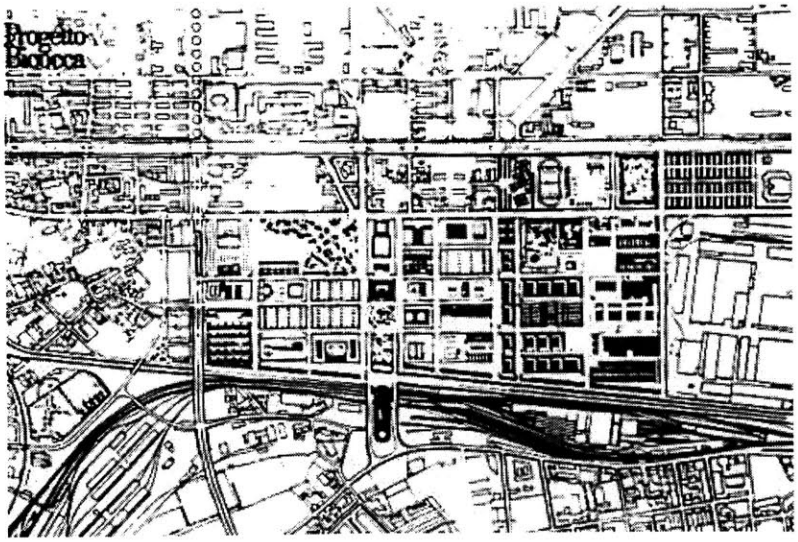


Fig. 19 Rafael Moneo. "Progetto-Bicocca," Milan, (competition,1985)

School in Tudela (designed, 1966, constructed, 1969-71)

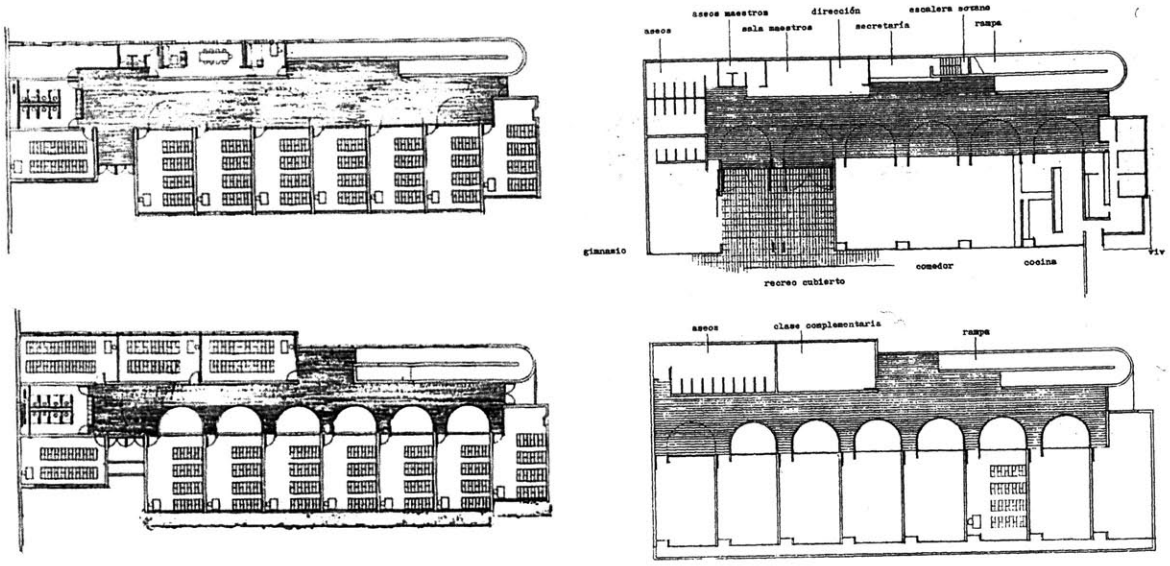
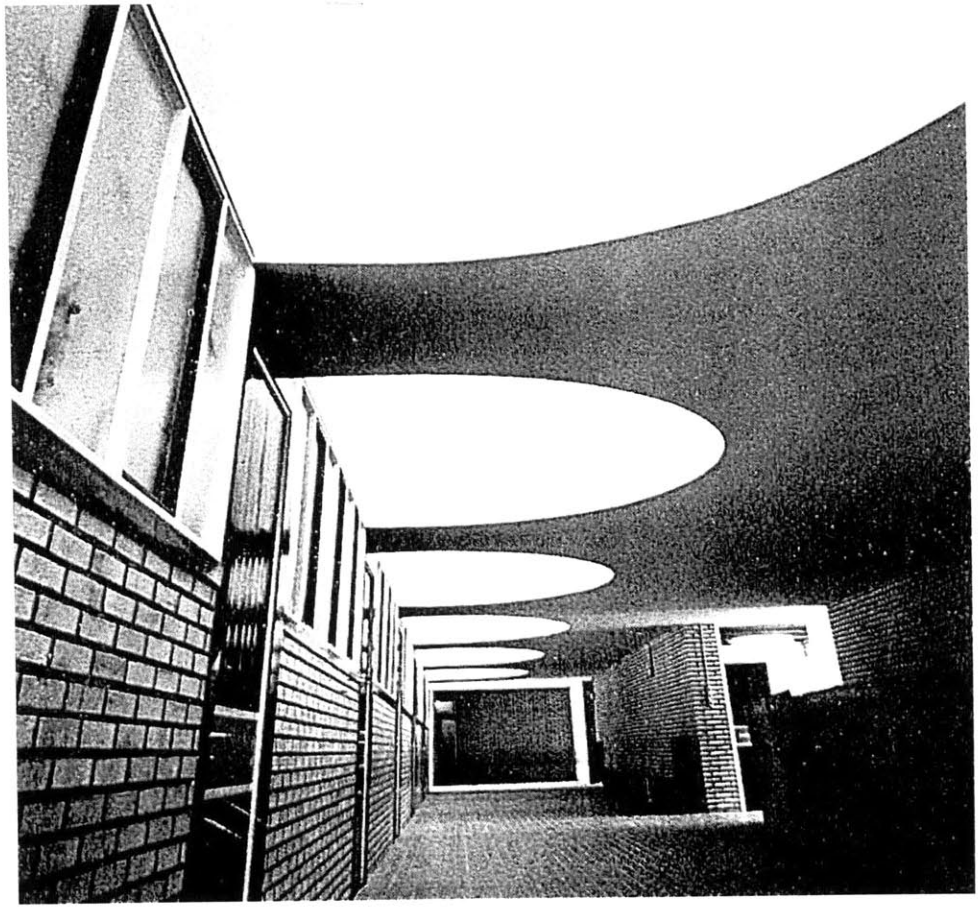


Fig. 20 School competition plans

Fig. 21 School in Tudela, plans & south elevation

Fig. 22 School in Tudela, north street view



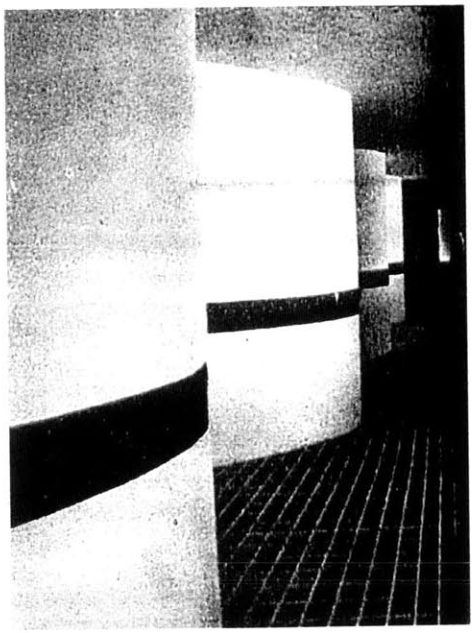


Fig. 23 Ground floor & Upper floor corridor views of semi-cylinder lightwells

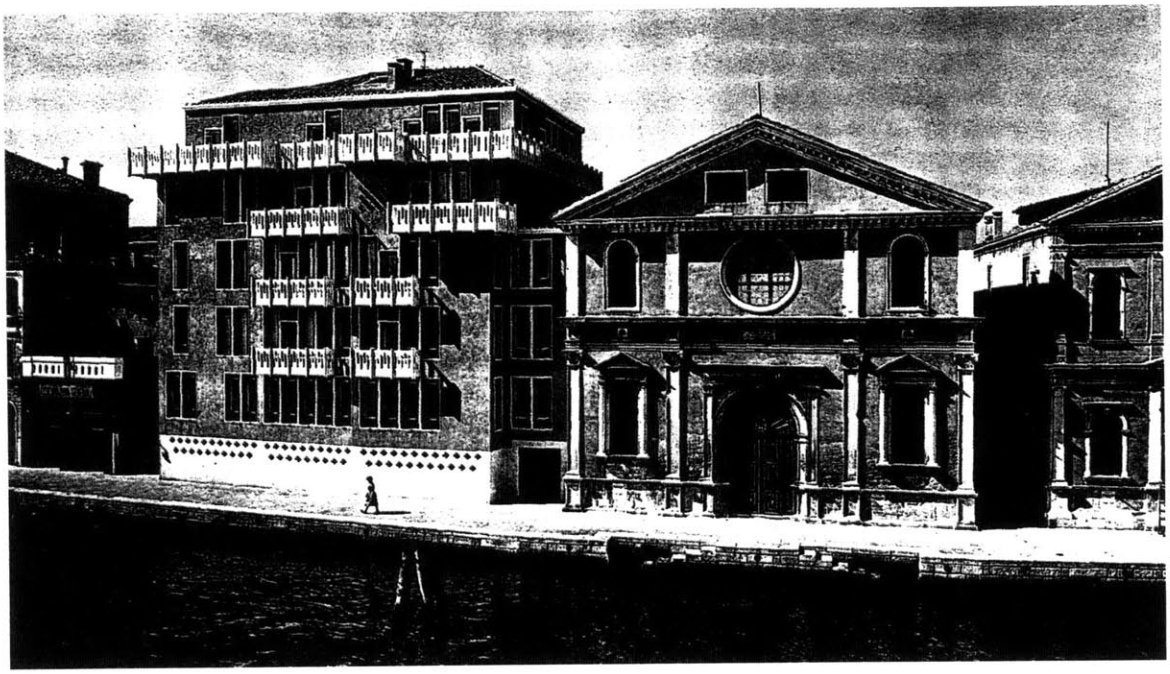
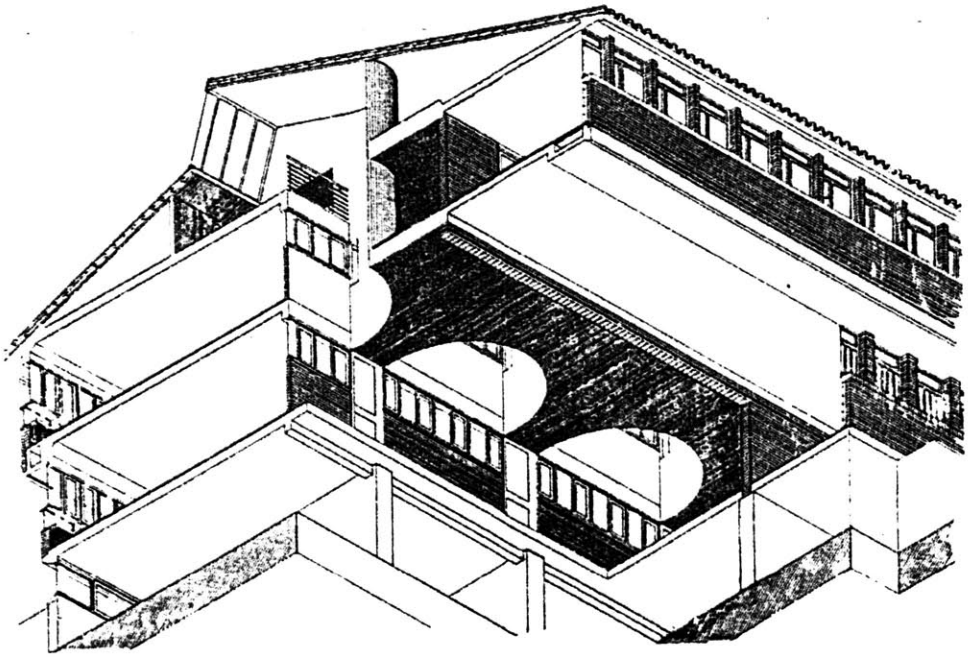


Fig. 24 Ignazio Gardella. Casa en la Zattere, Venice (1957)

Fig. 25 Asplund. Gotheburg Hall, Sweden



School in Tudela, cut-axonometric(1965-67)

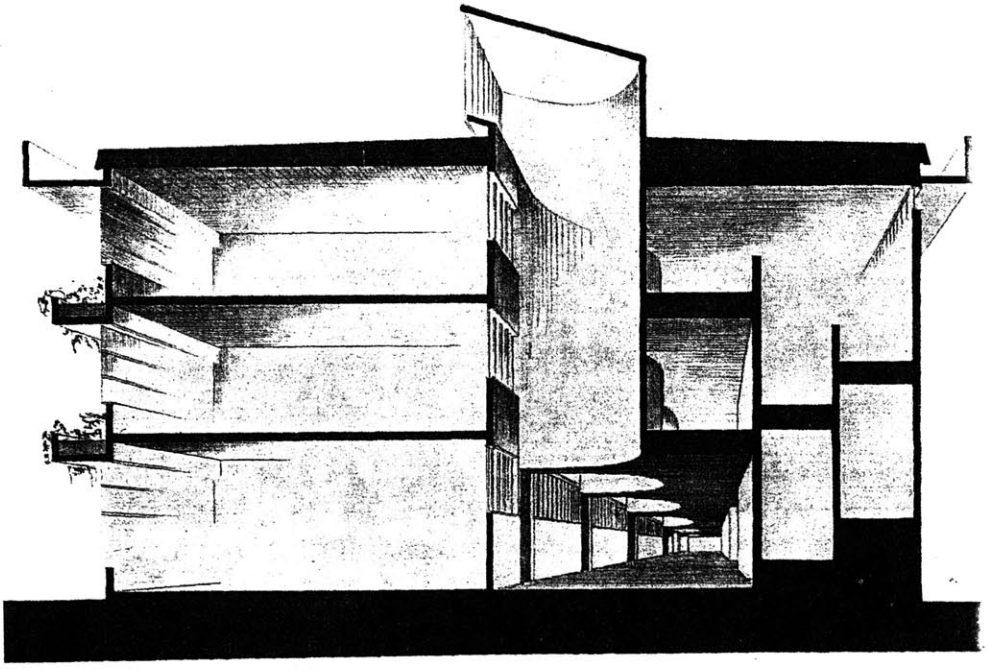


Fig. 26 National competition for a school project, one-point perspective (1967)

Gómez-Acebo House in Moraleja, Madrid (1966-68)

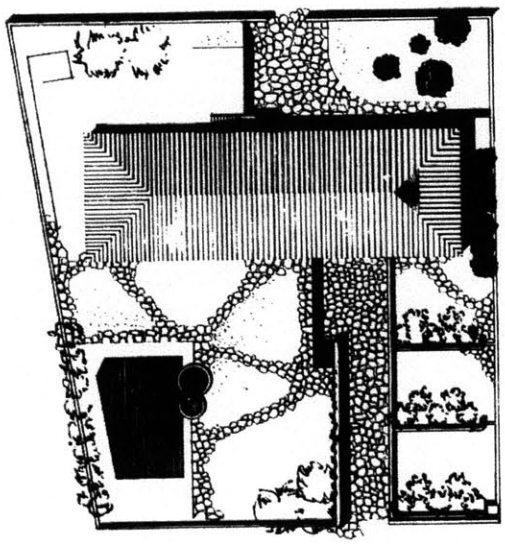


Fig. 27 House Gómez-Acebo, site plan

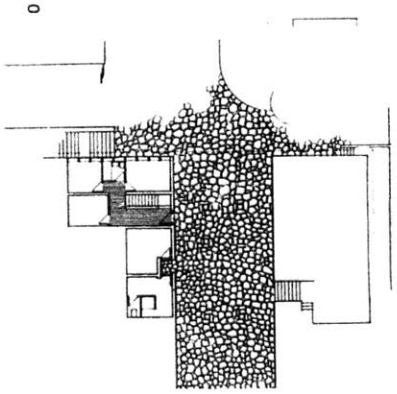


Fig. 28 House Gómez-Acebo, basement plan

Fig. 29 House Gómez-Acebo partial view of south façade

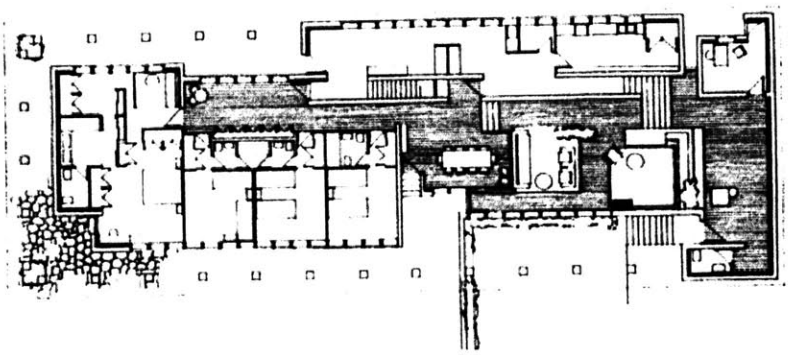


Fig. 30 House Gómez-Acebo, ground floor plan

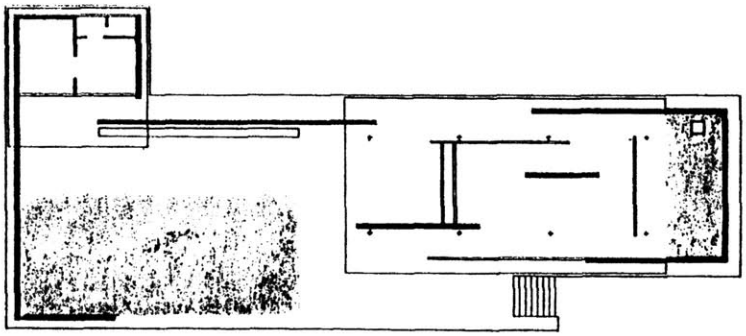


Fig. 31 Mies van der Rohe, Barcelona pavilion (1929)

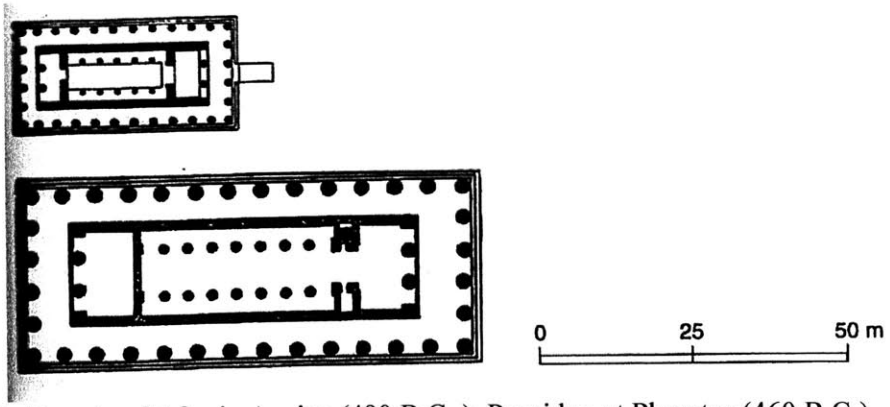


Fig. 32 Temple of Afea in Aegina (490 B.C..); Poseidon at Phaestos (460 B.C.)

Fig. 33 Gómez-Acebo House. South view

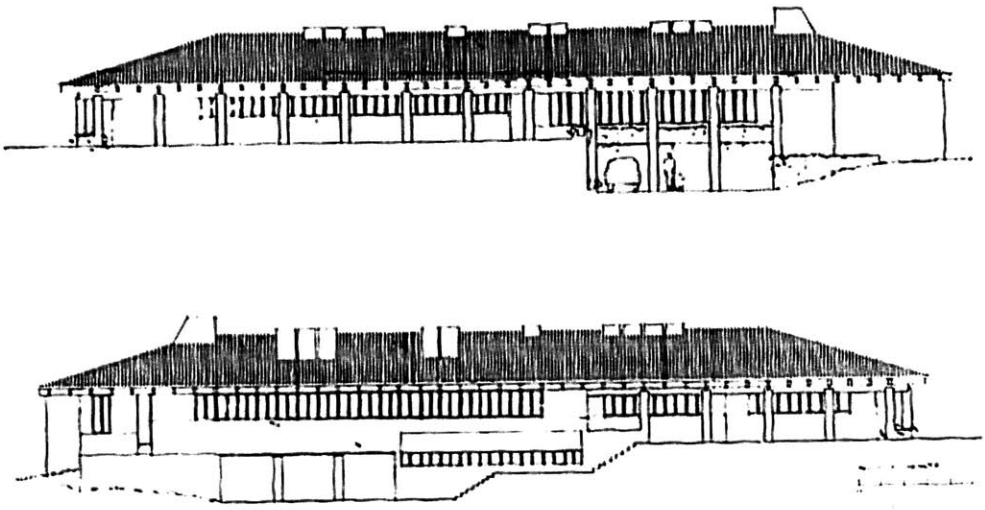


Fig. 34 Gómez-Acebo House. South & North elevations

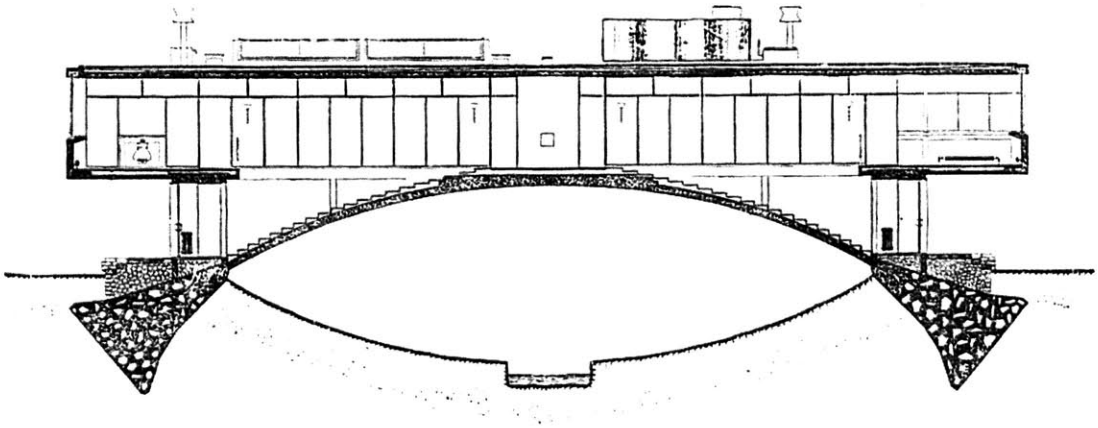
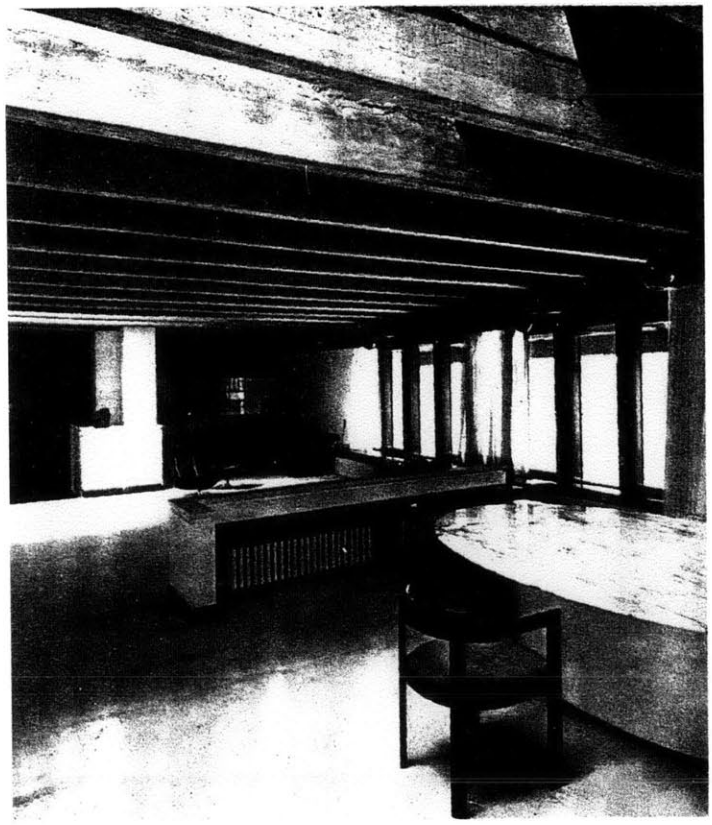


Fig. 35 Amancio Williams. The house over the Brook, Mar del Plata (1943-45)

Fig. 36 Interior views: living room and dining room



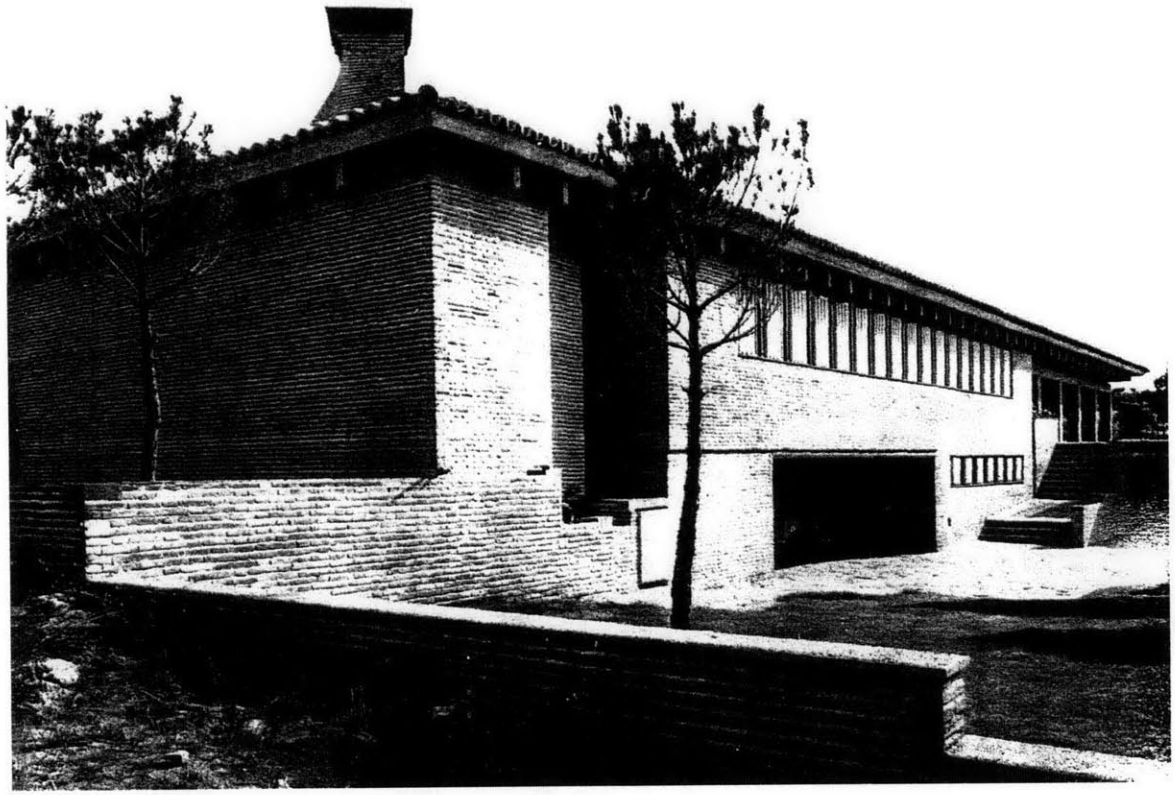


Fig. 37 House Gómez-Acebo, North view

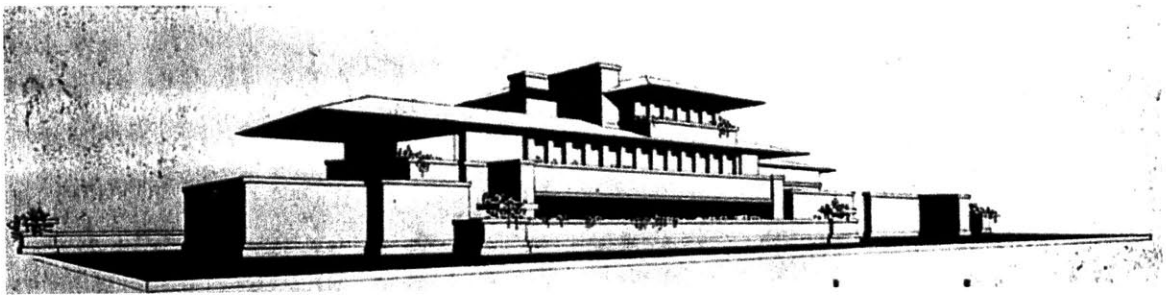
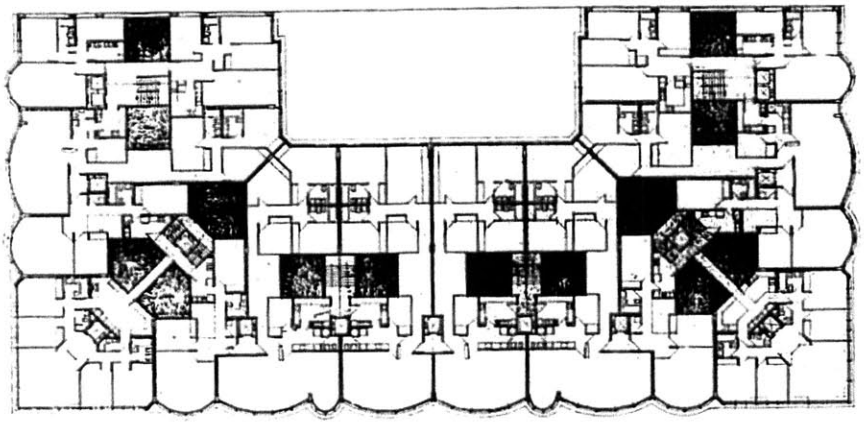
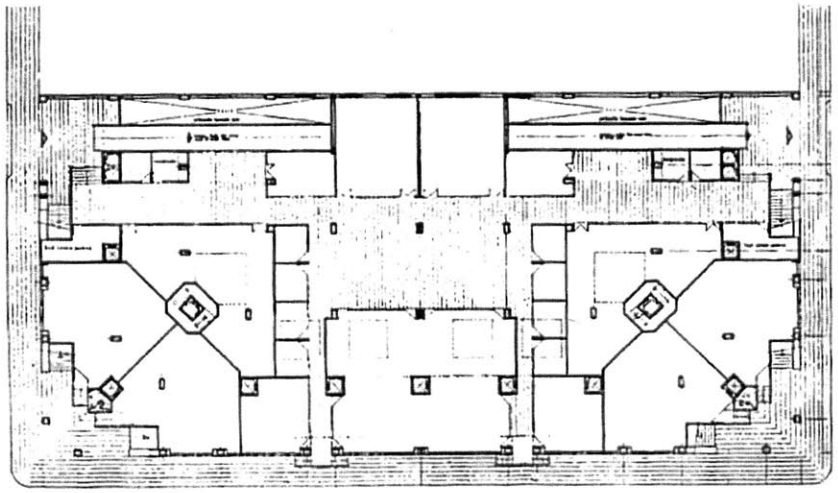


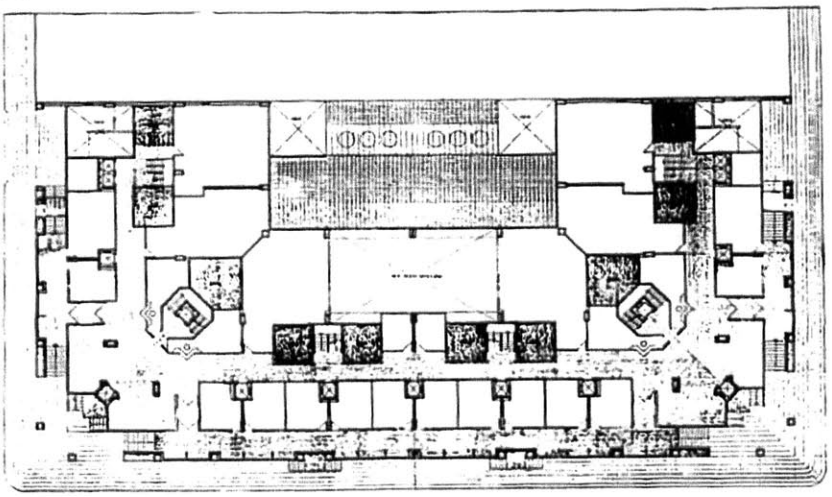
Fig. 38 Frank Lloyd Wright. Robie House



▲ PLANTA TIPO



▲ PLANTA BAJA



▲ PLANTA DE ÁTICOS

Fig. 39 Rafael Moneo. Urumea housing: Typical & ground floor plan

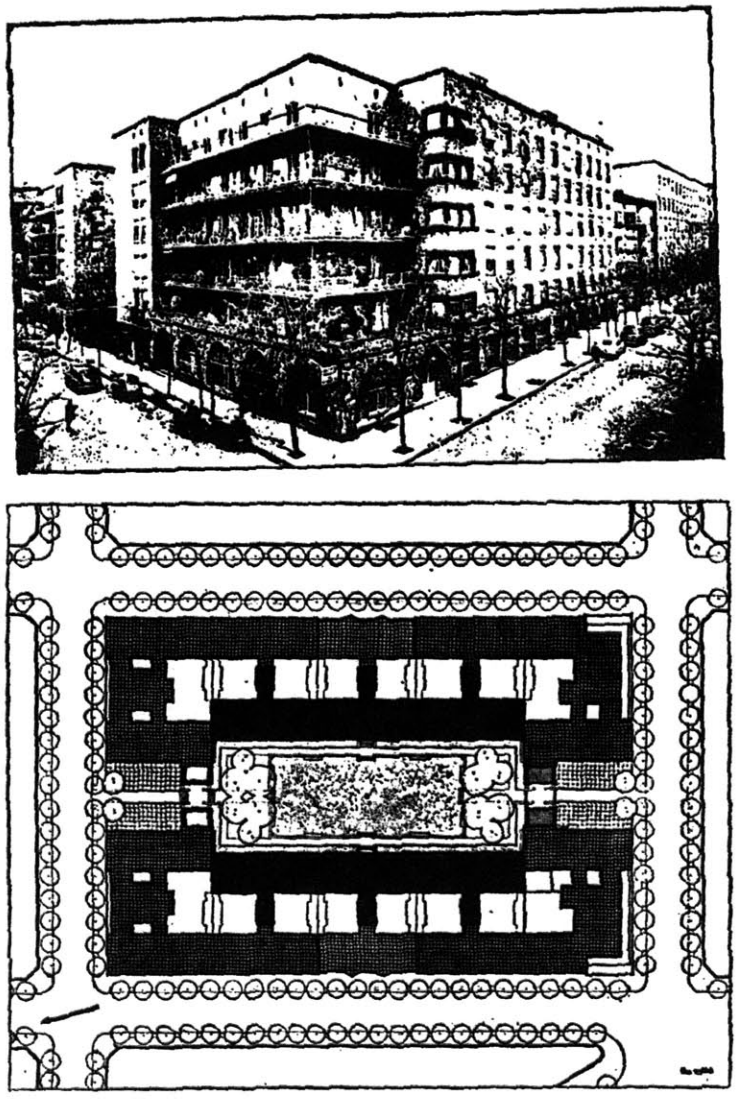


Fig. 40 Segundino Zuazo Casa de las Flores, Madrid (1931)

Fig. 41 Urumea Housing, exterior view

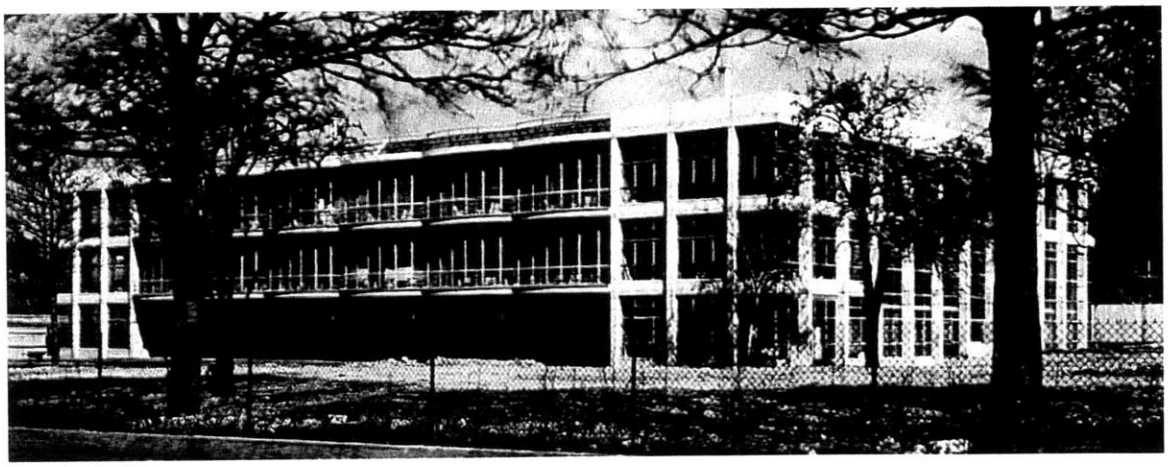


Fig. 42 William Owen. Pioneer Health Center, Peckham, London (1933-35)

Fig. 43 Urumea Housing, view of the entrance lobby

Fig. 44 José Manuel Aizpurúa & Joaquin Labayen. Yacht Club, San Sebastián (1927)

Extension of the Headquarters of Bankinter, Madrid (1972-77)

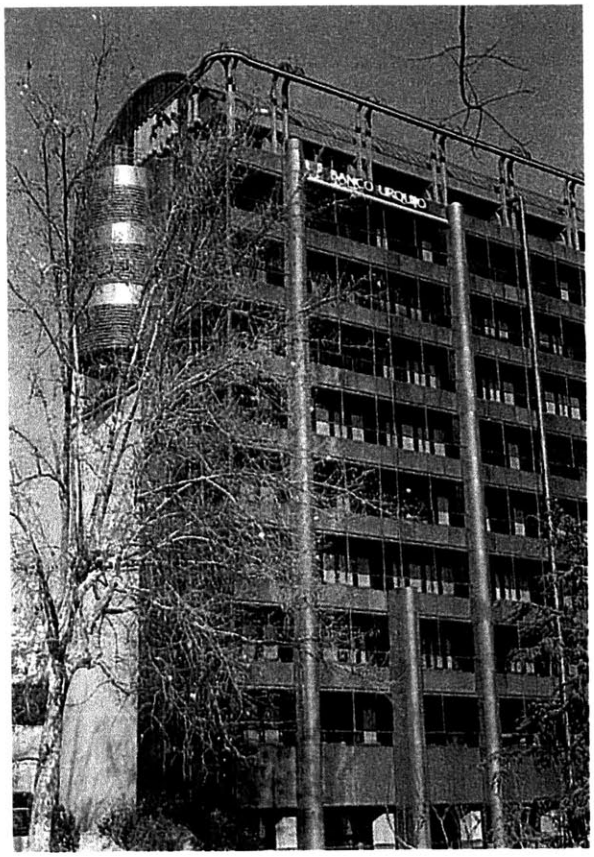


Fig. 46 Corrales & Molezún. Bankunión, Madrid (1970-75)

Fig. 47 Javier Sáenz de Oíza. BBV, Madrid (1971-79)

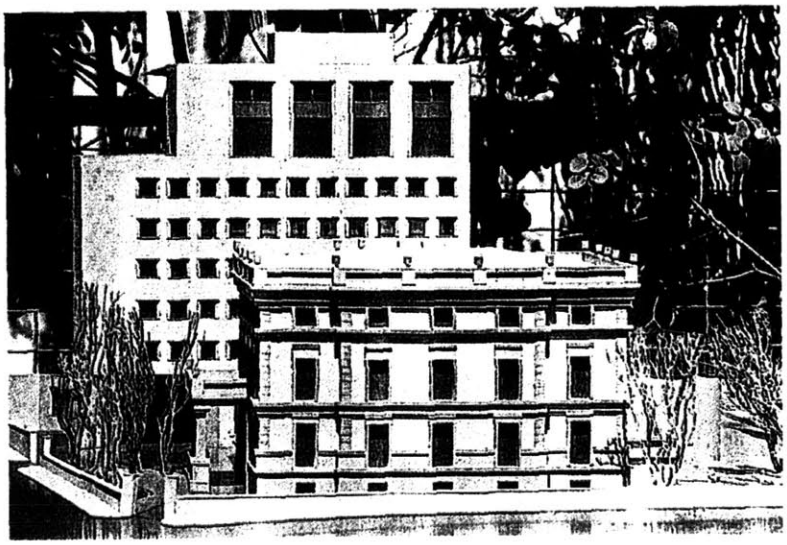


Fig. 48 Rafael Moneo, Bankinter with *palacete* of Marqués de Tudela in front

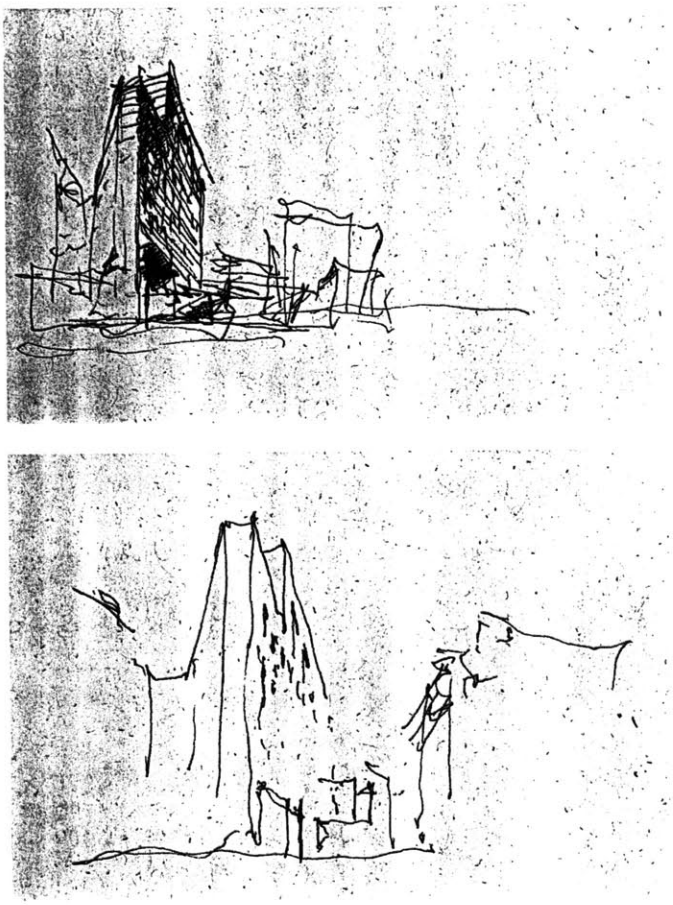


Fig. 49 Bankinter, initial croquis

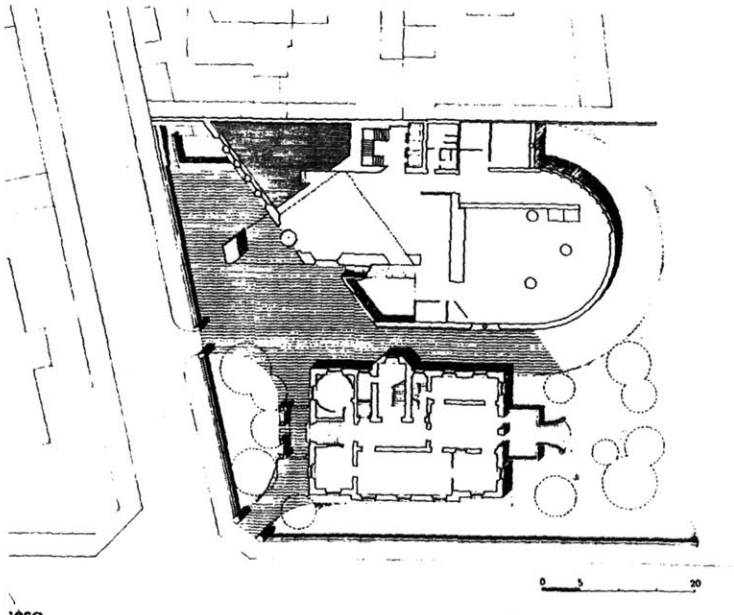


Fig. 50 Bankinter, ground floor plan

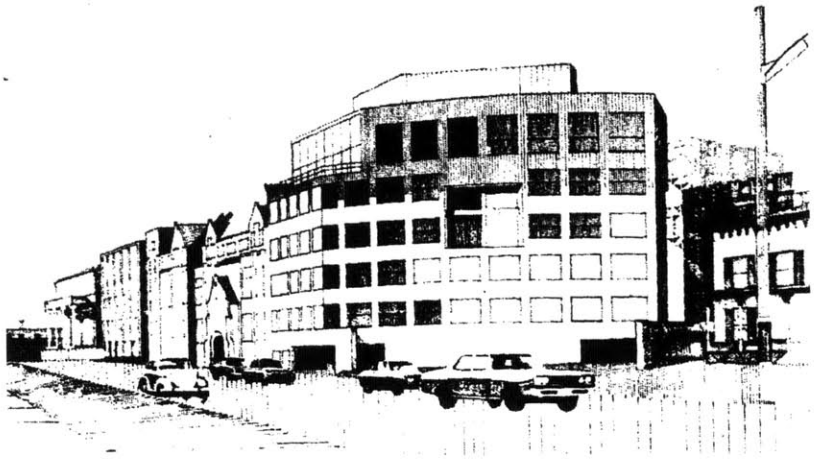


Fig. 51 Robert Venturi. Mathematics Department Building, Yale University, (1969-70)

Fig. 52 Luigi Moretti. Building on the via Dante, Milan (1949-56)

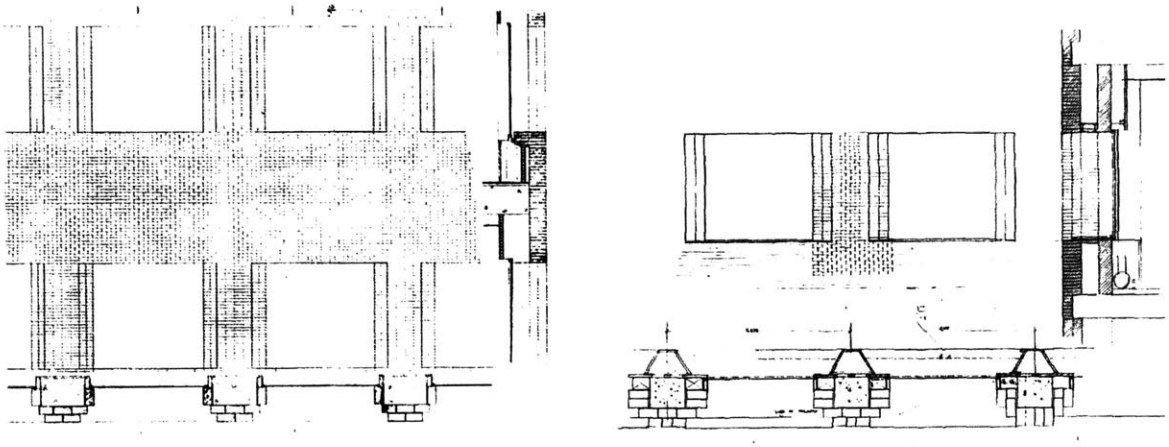


Fig. 53 Bankinter. Window detail development, 1973 & 1974

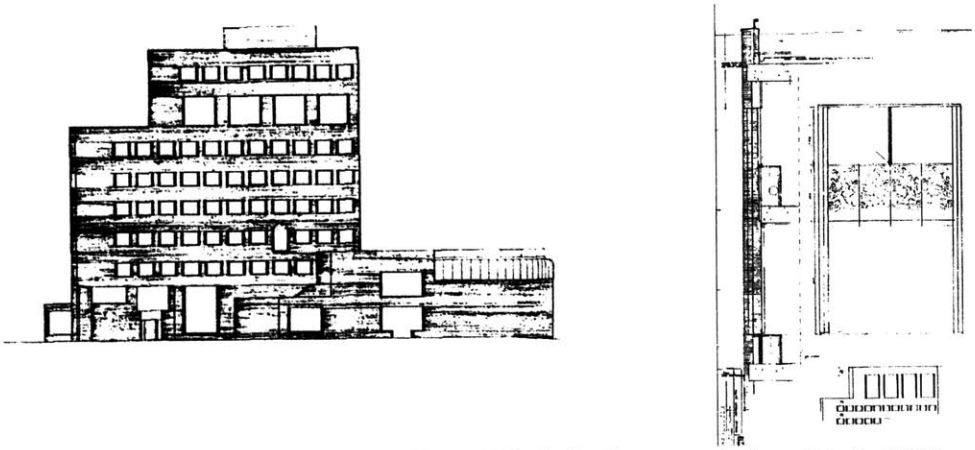


Fig. 54 Bankinter, Elevation, 1973 & final upper window detail, 1974

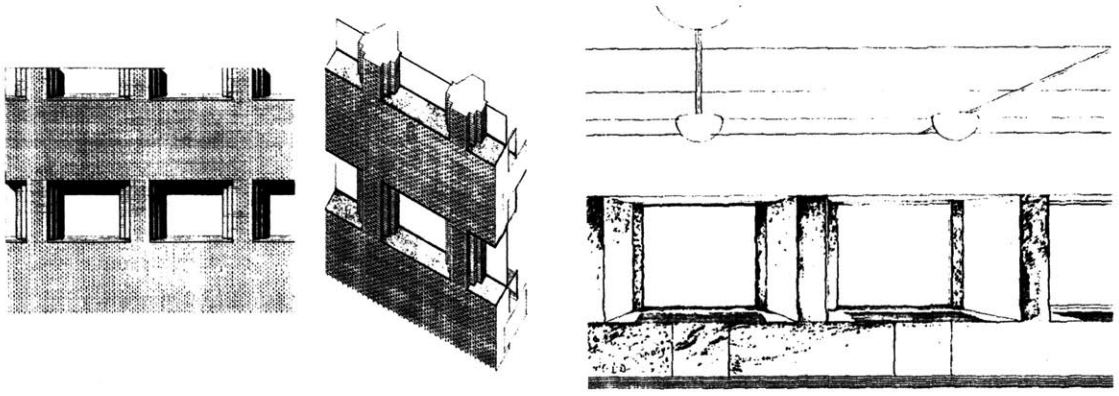


Fig. 55 Bankinter. Typical façade window cut-axo & office window interior perspective

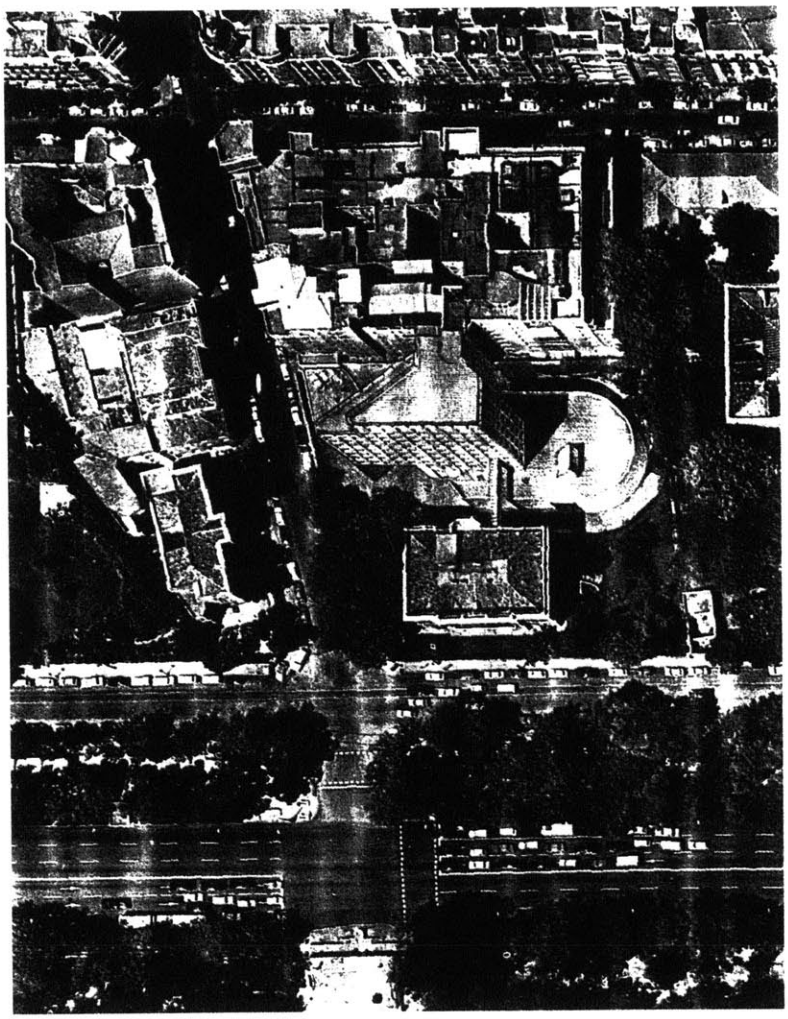


Fig. 56 Bankinter. Photomontage (1972)

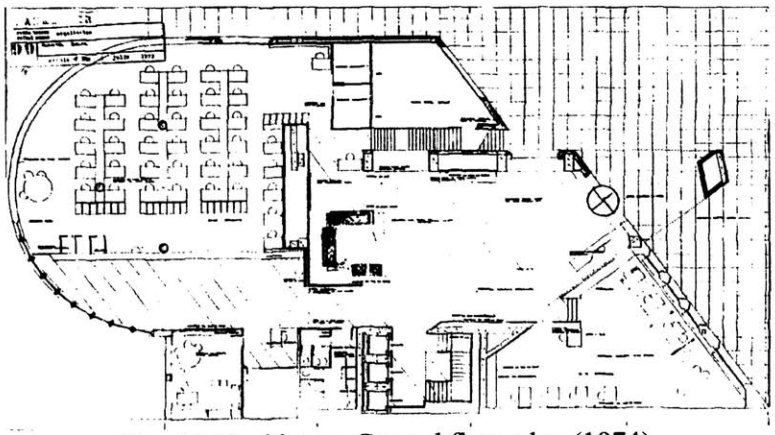


Fig. 57 Bankinter. Ground floor plan (1974)

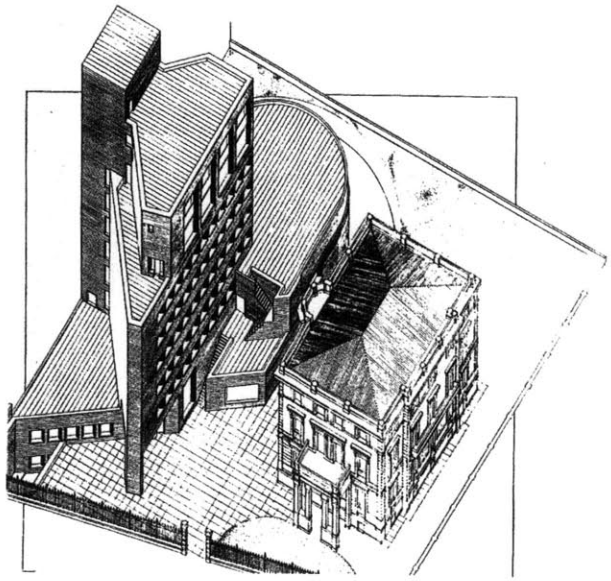


Fig. 58 Axonometric

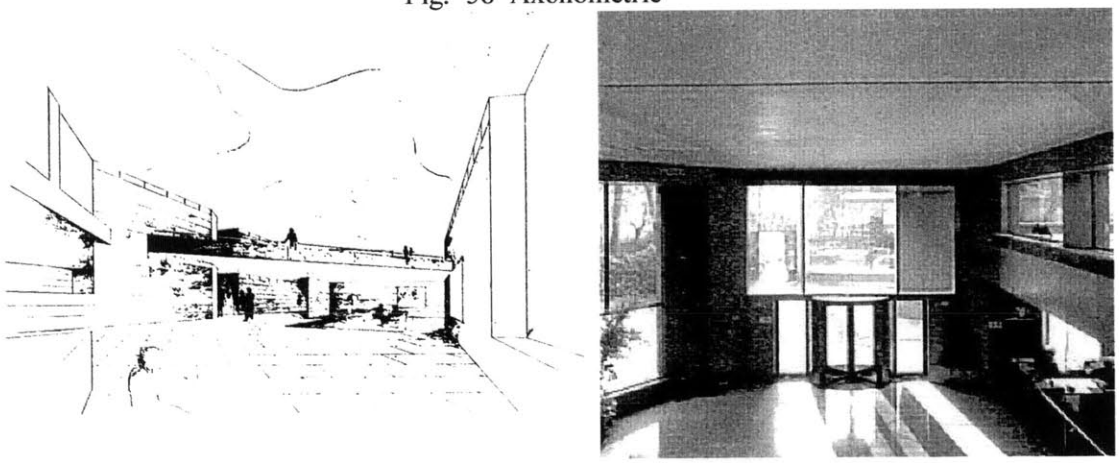


Fig. 59 Bankinter. Lobby

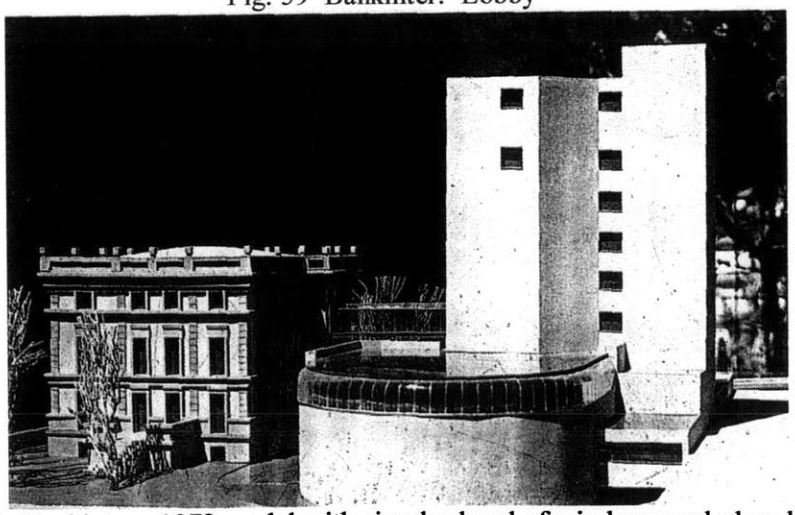


Fig. 60 Bankinter. 1973 model with circular band of windows and glass bridge

Town Hall of Logroño (designed 1973-75; built 1976-81)

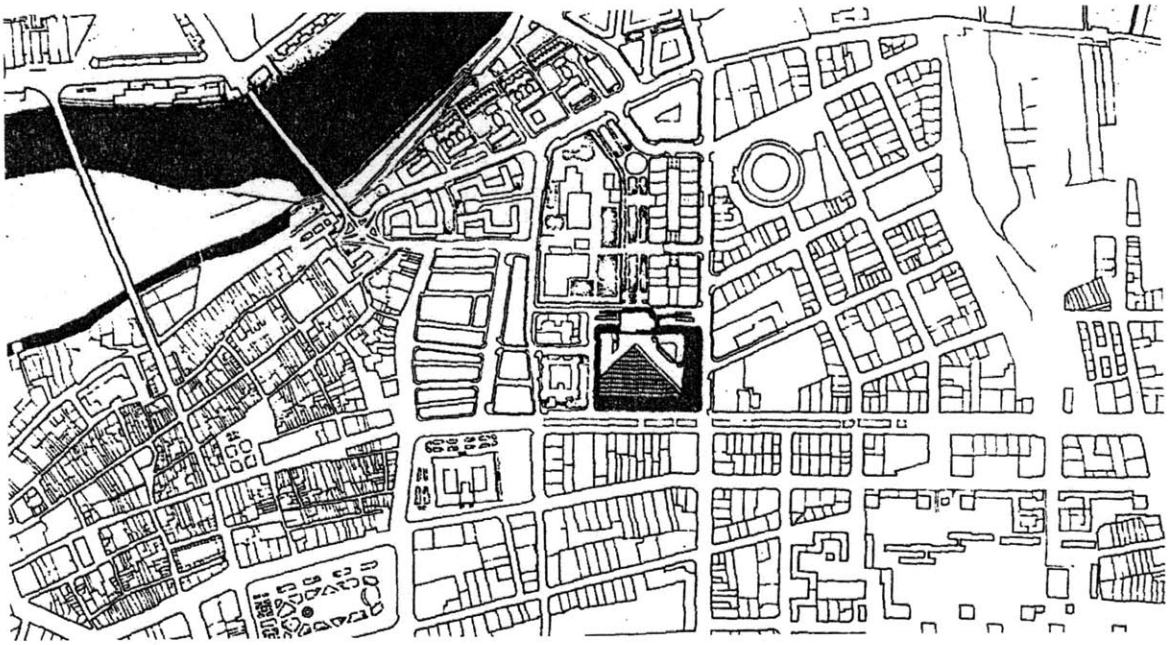


Fig. 61 Town Hall, site plan

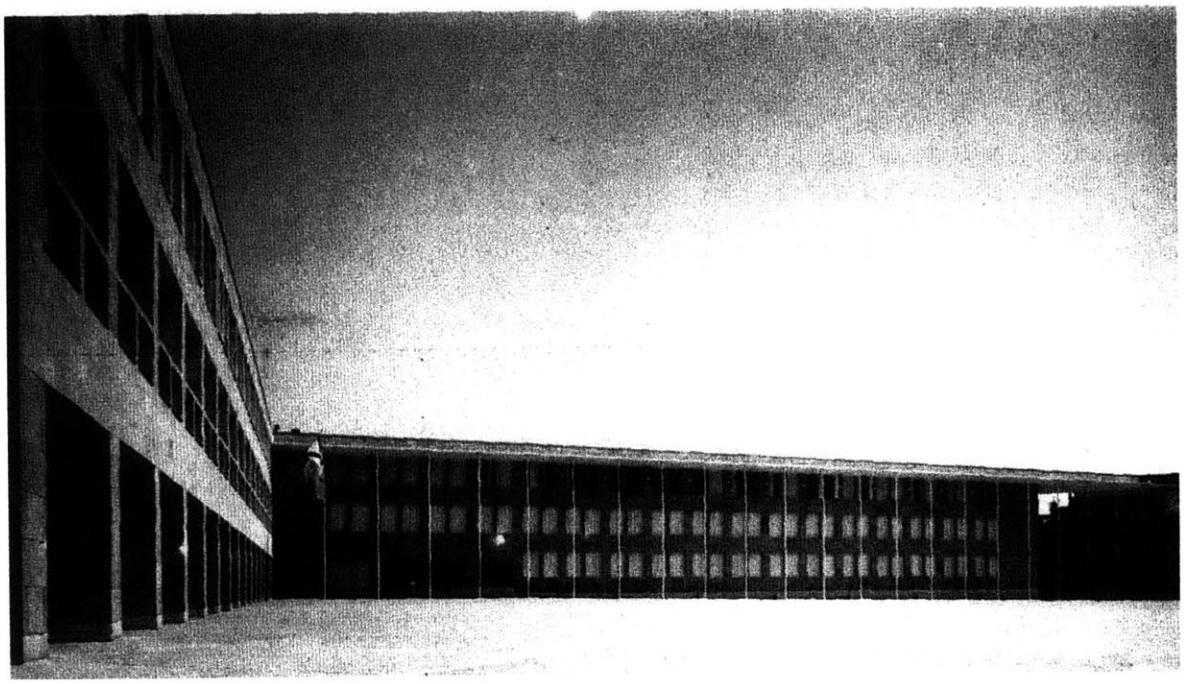


Fig. 62 Town Hall, view from main square

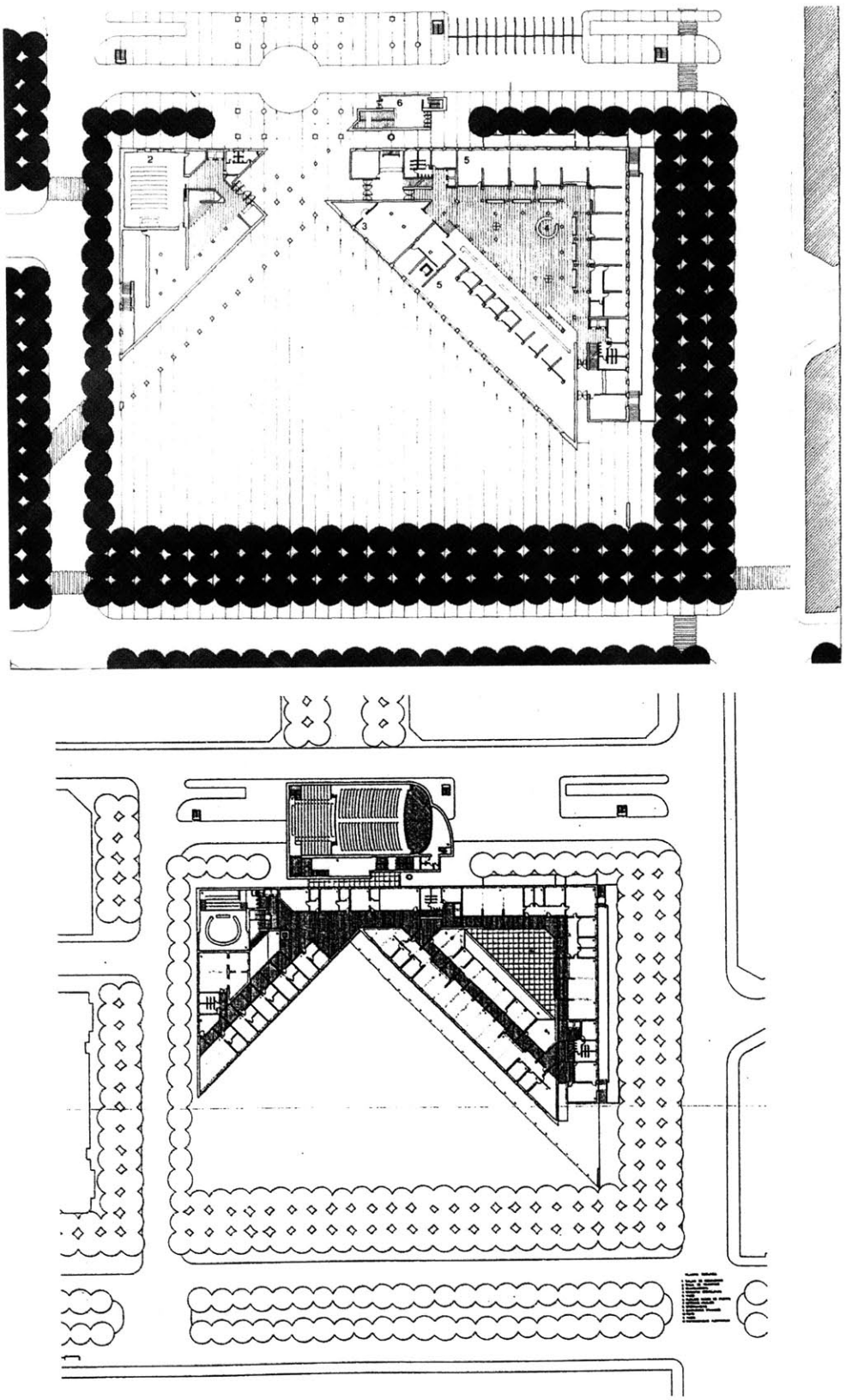


Fig. 63 Town Hall. Ground floor & upper floor plan

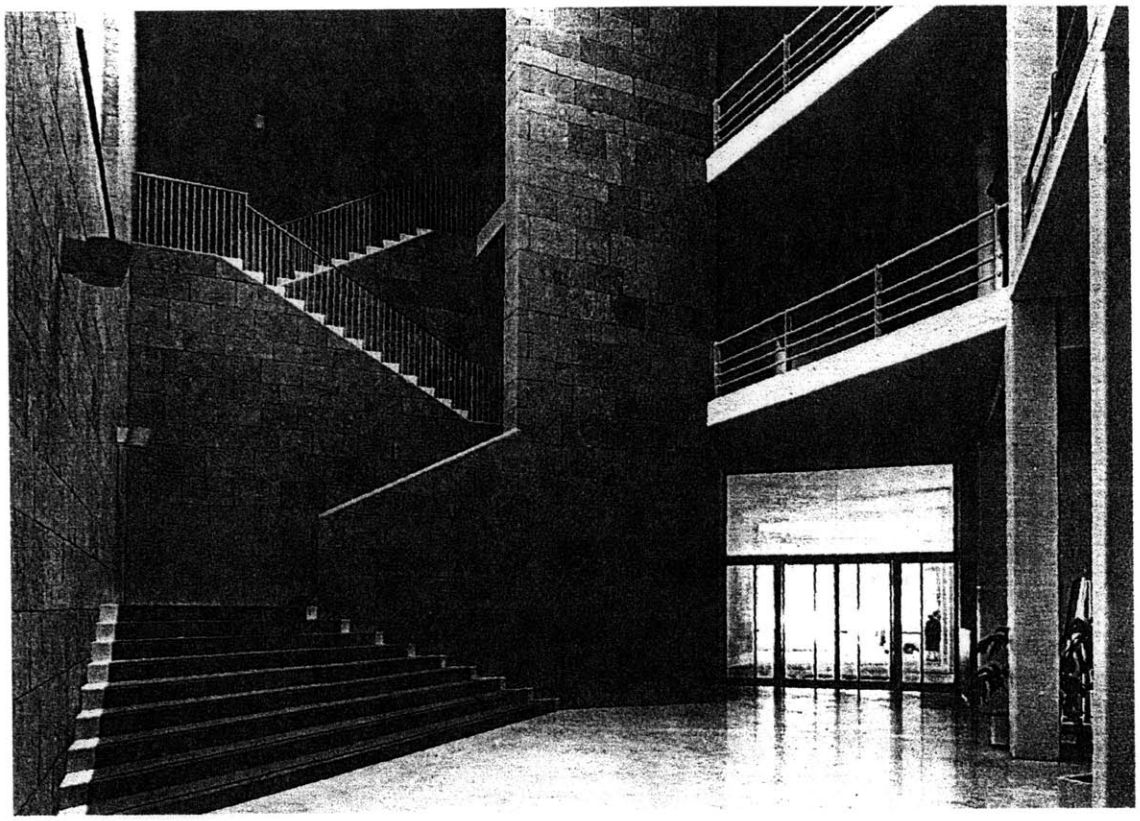


Fig. 64 Town hall. Main lobby

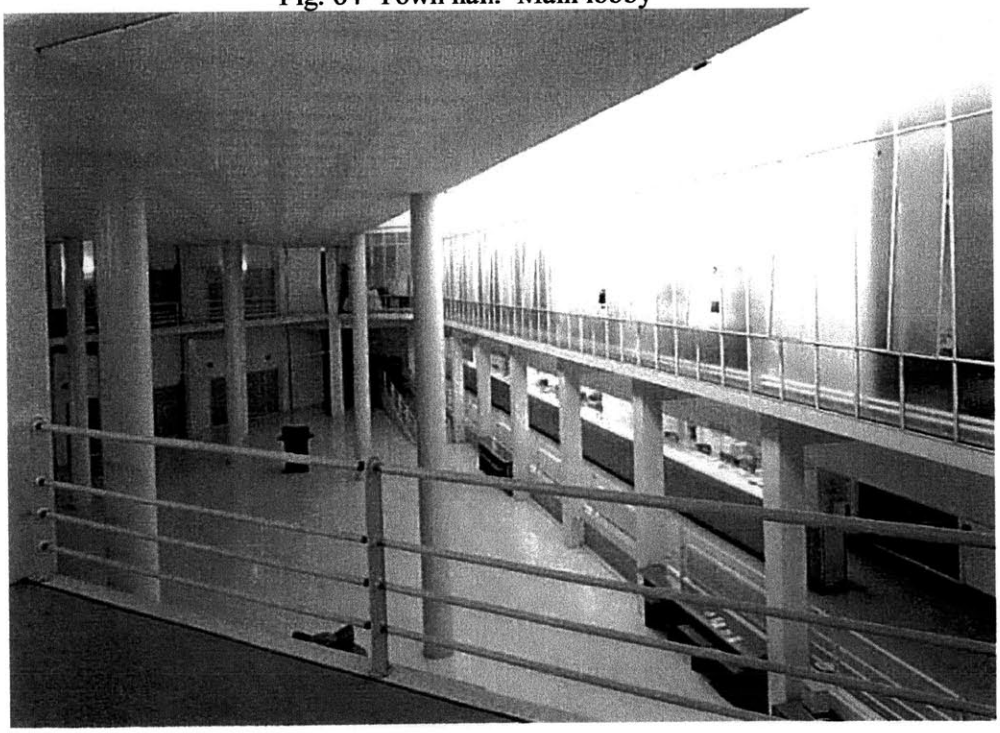


Fig. 65 Town Hall. Administration building, main courtyard

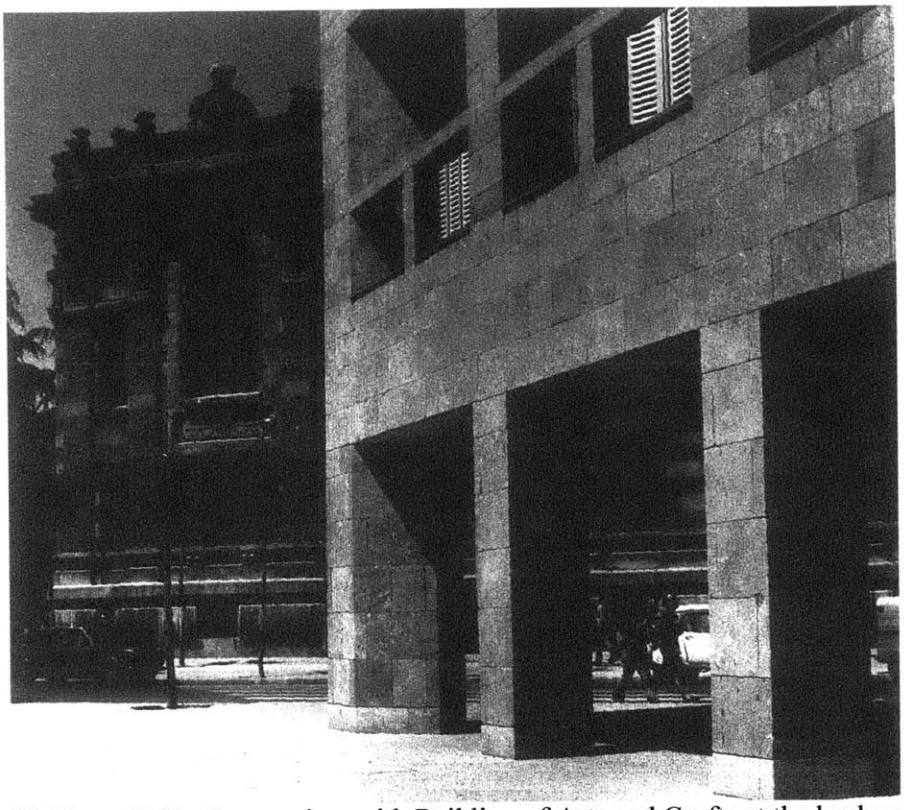


Fig. 66 Town Hall. Corner view with Building of Arts and Crafts at the background

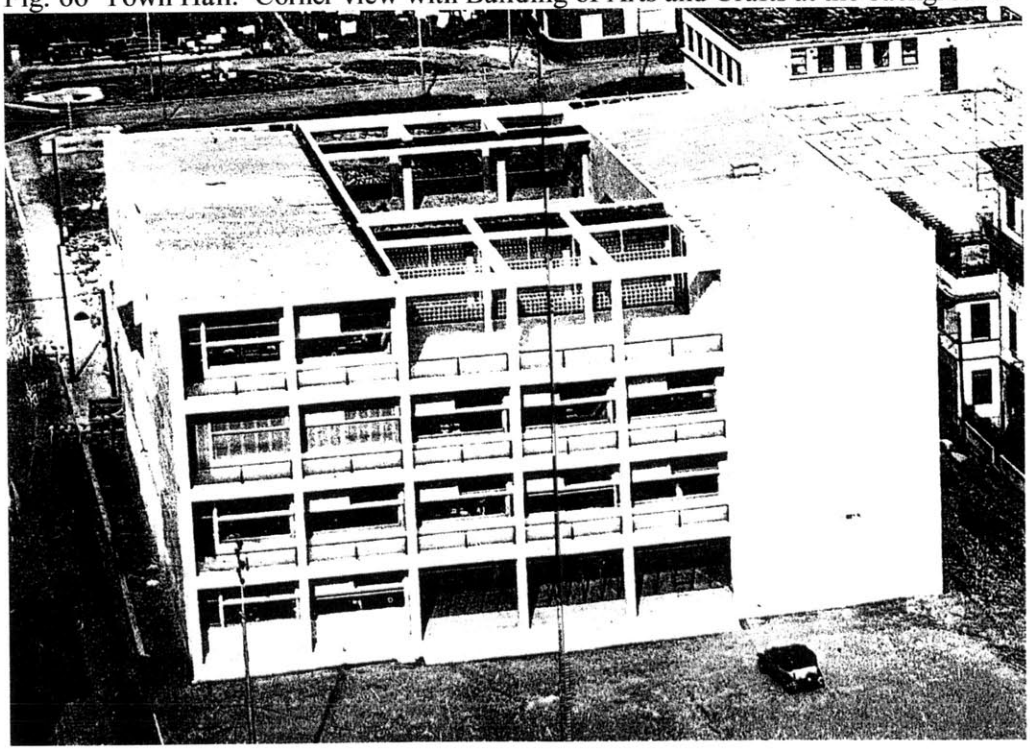


Fig. 67 Giuseppe Terragni. Casa del Fascio (1932-34)

Extension of Headquarters of the Banco de España, Madrid, (1979)

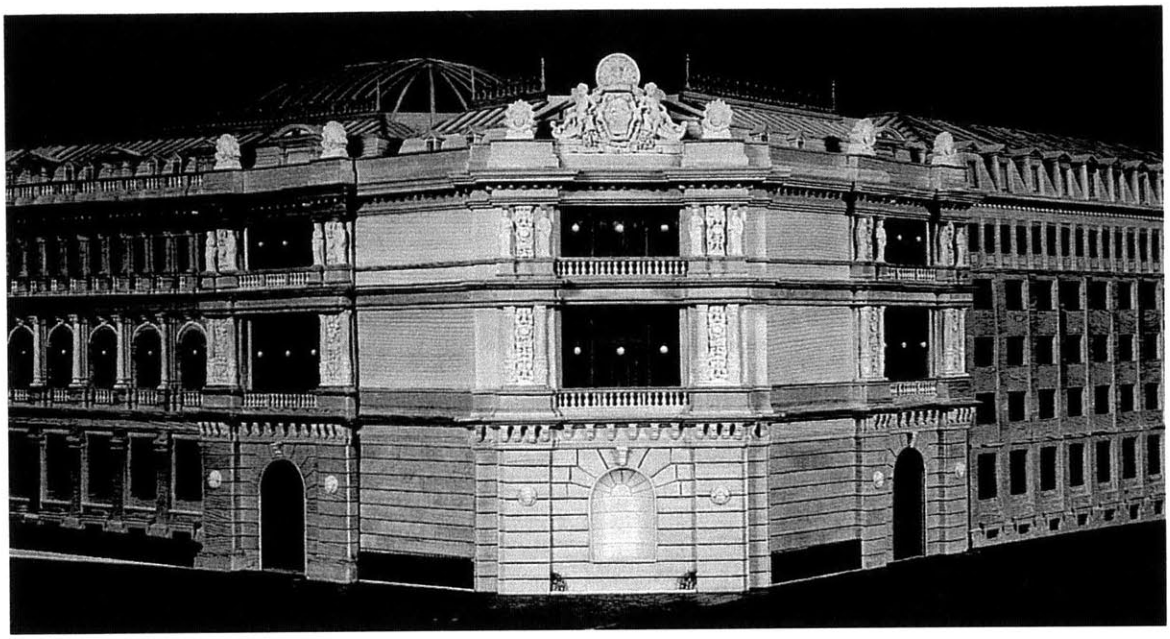


Fig. 68 Rafael Moneo, Banco de España, model

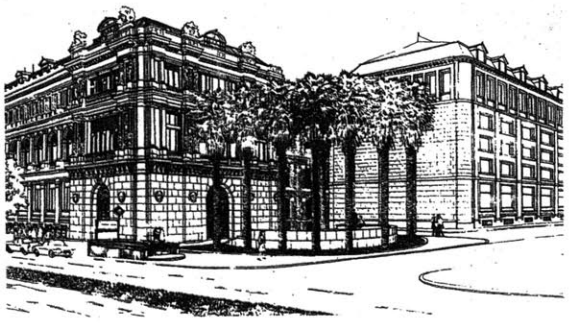


Fig. 69 Martorell Bohigas Mackay entry

Fig. 70 Población entry

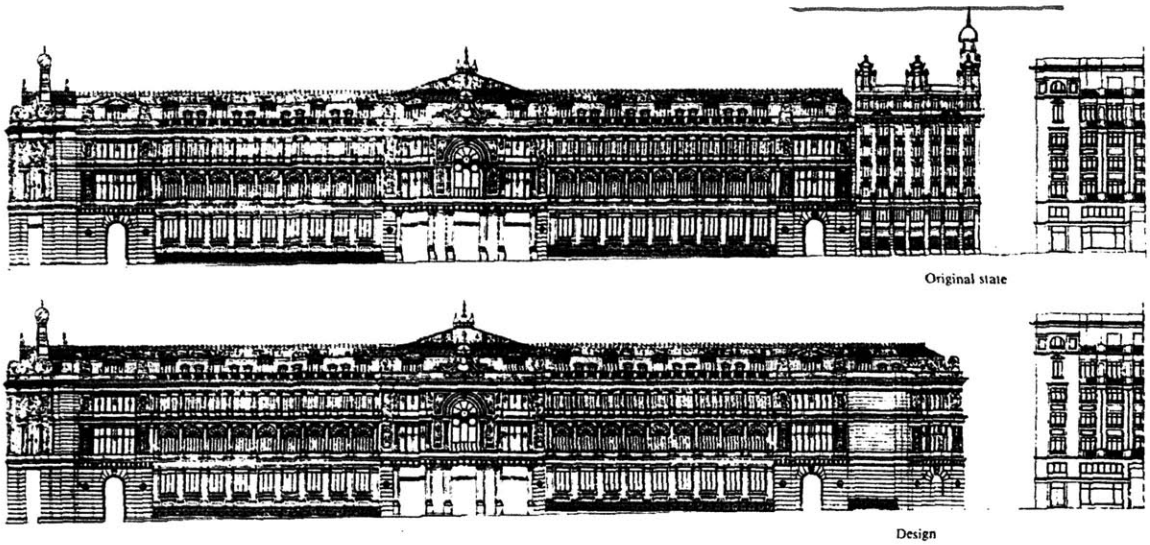


Fig. 71 Rafael Moneo. Banco de España, original & design elevations

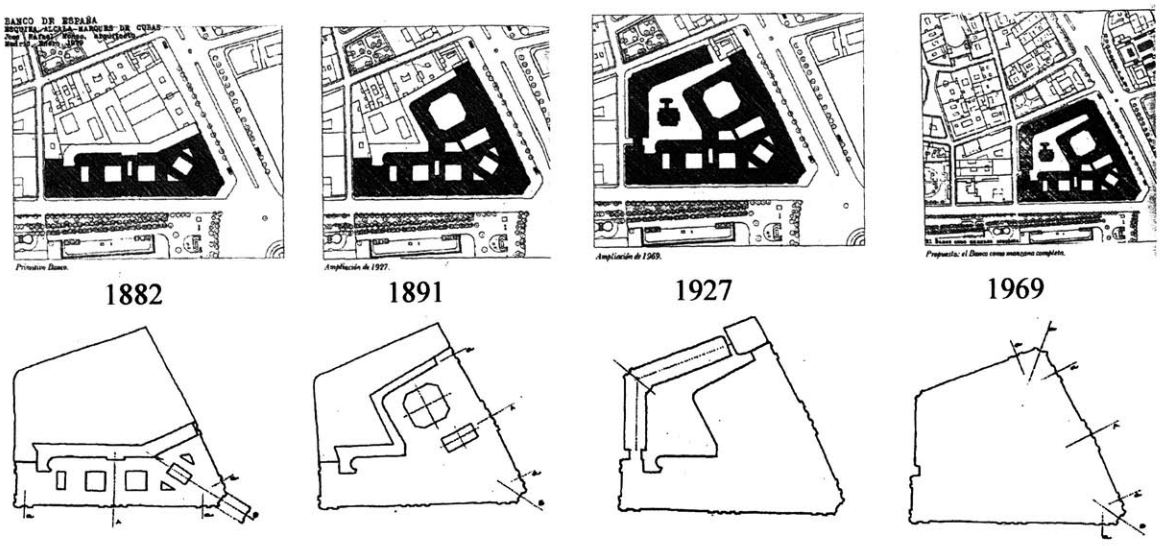


Fig. 72 Rafael Moneo. Banco de España, site plan analysis

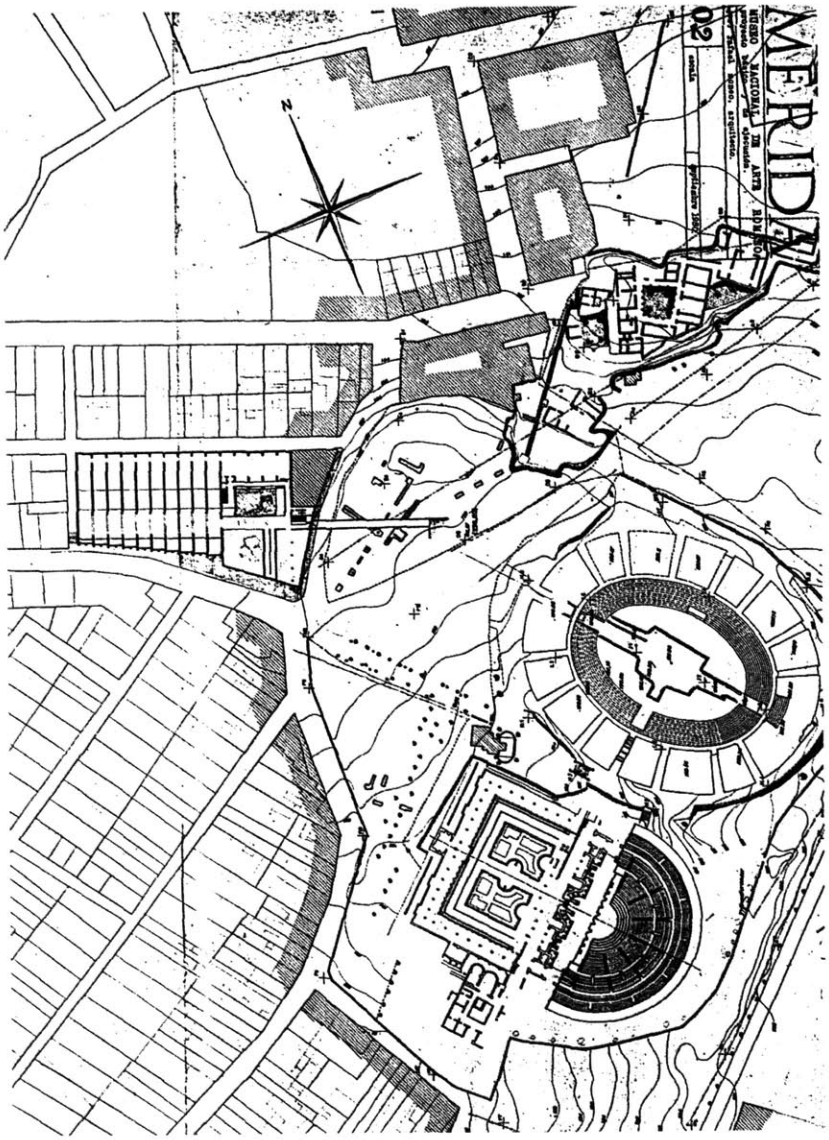


Fig. 73 Mérida museum, site plan with archeological site

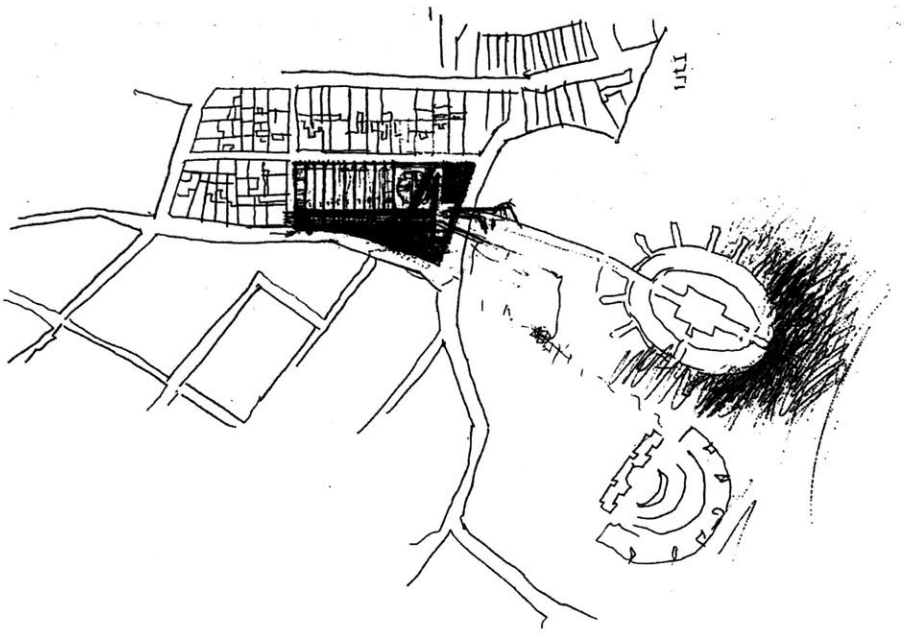


Fig. 74 Mérida museum, initial croquis

Fig. 75 Mérida museum, ground floor & basement plans

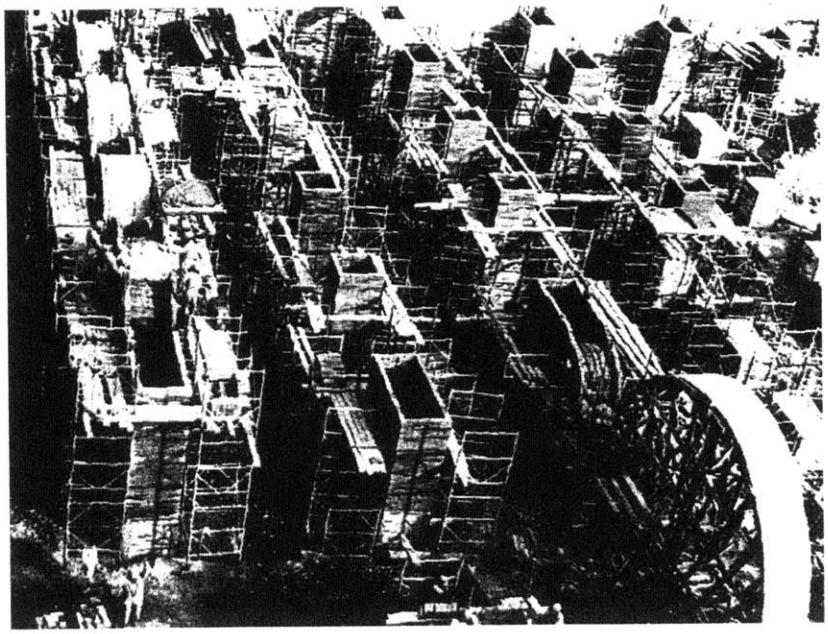


Fig. 76 Mérida museum, construction of structure

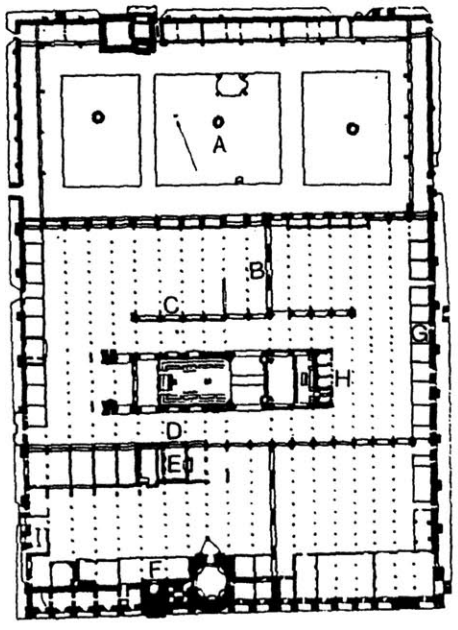


Fig. 77 Córdoba mosque plan

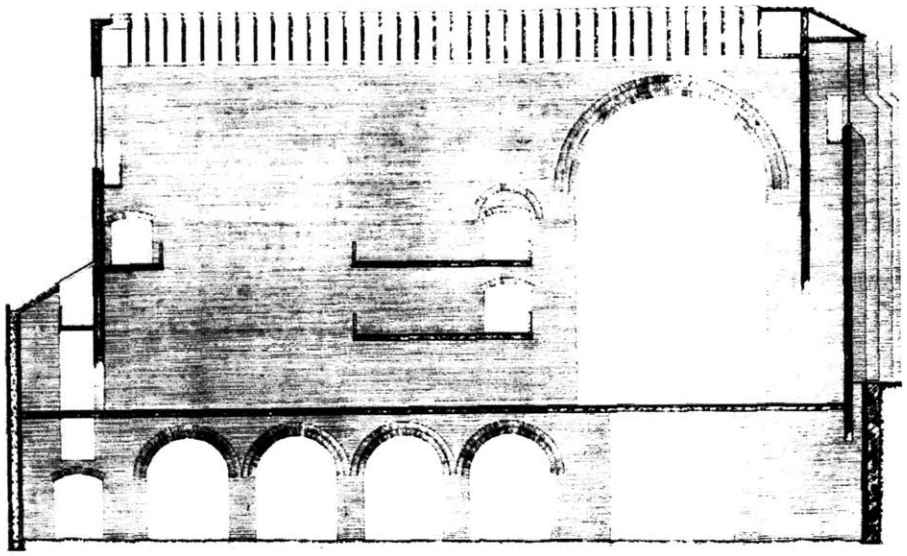


Fig. 78 Mérida museum, transversal section

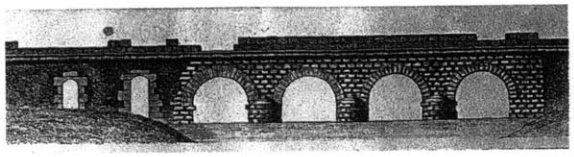


Fig. 79 Bridge over river Albarregas, Mérida

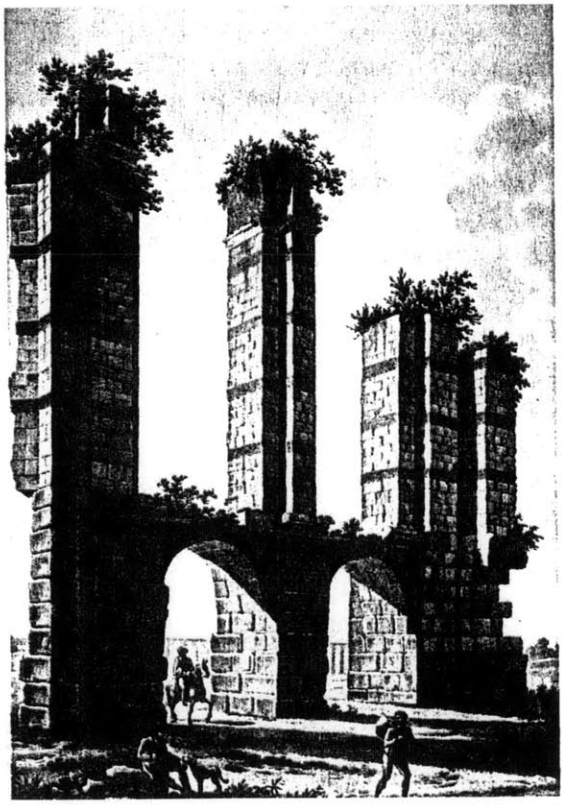


Fig. 80 Aqueduct of San Lázaro, Mérida

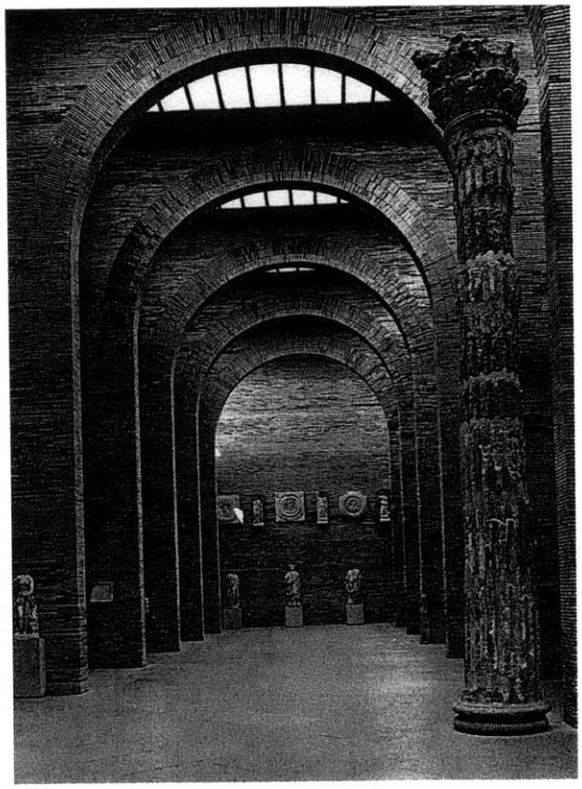


Fig. 81 Mérida museum. Great nave

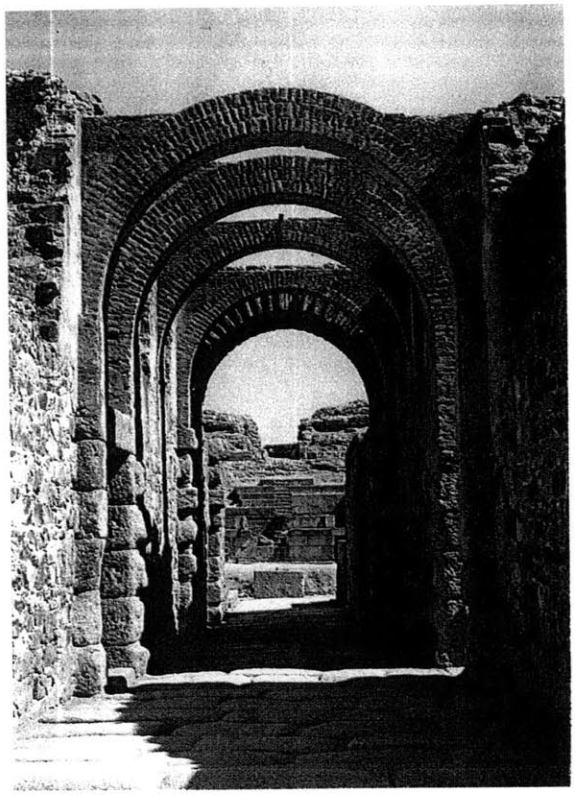


Fig. 82 Roman amphitheater western entrance, Mérida

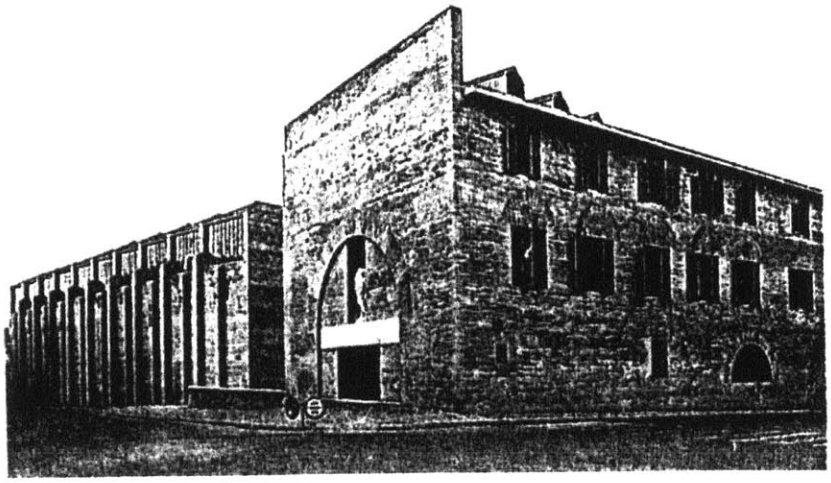


Fig. 83 Mérida museum. South view

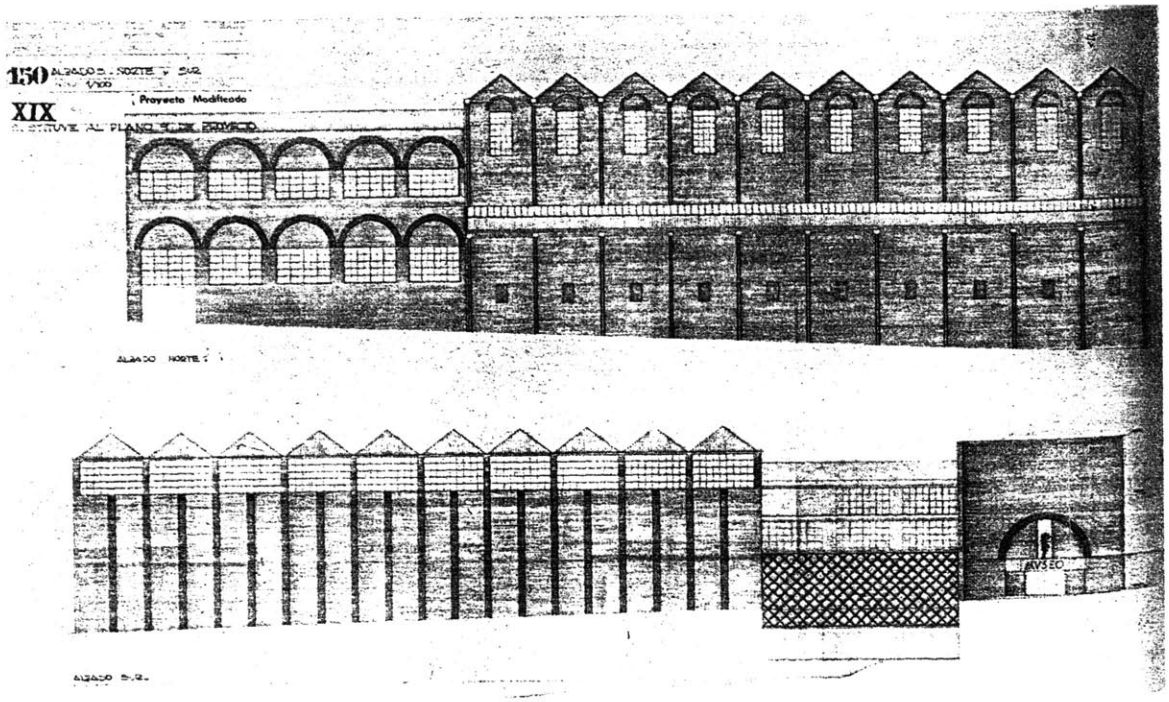


Fig. 84 Mérida museum, north & south elevations

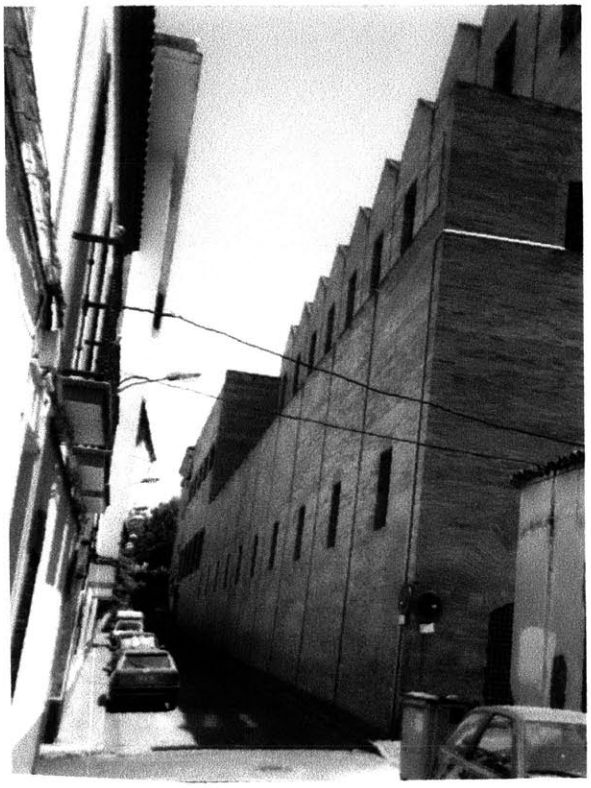


Fig. 85 Mérida museum, Northern façade

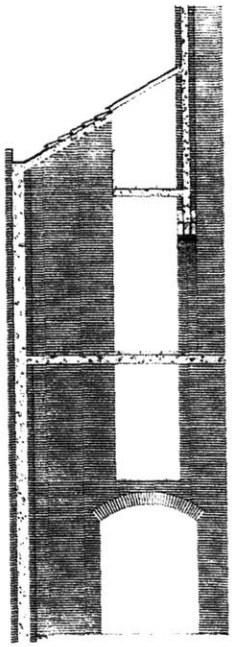


Fig. 86 Mérida museum. Section Detail of northern wall.

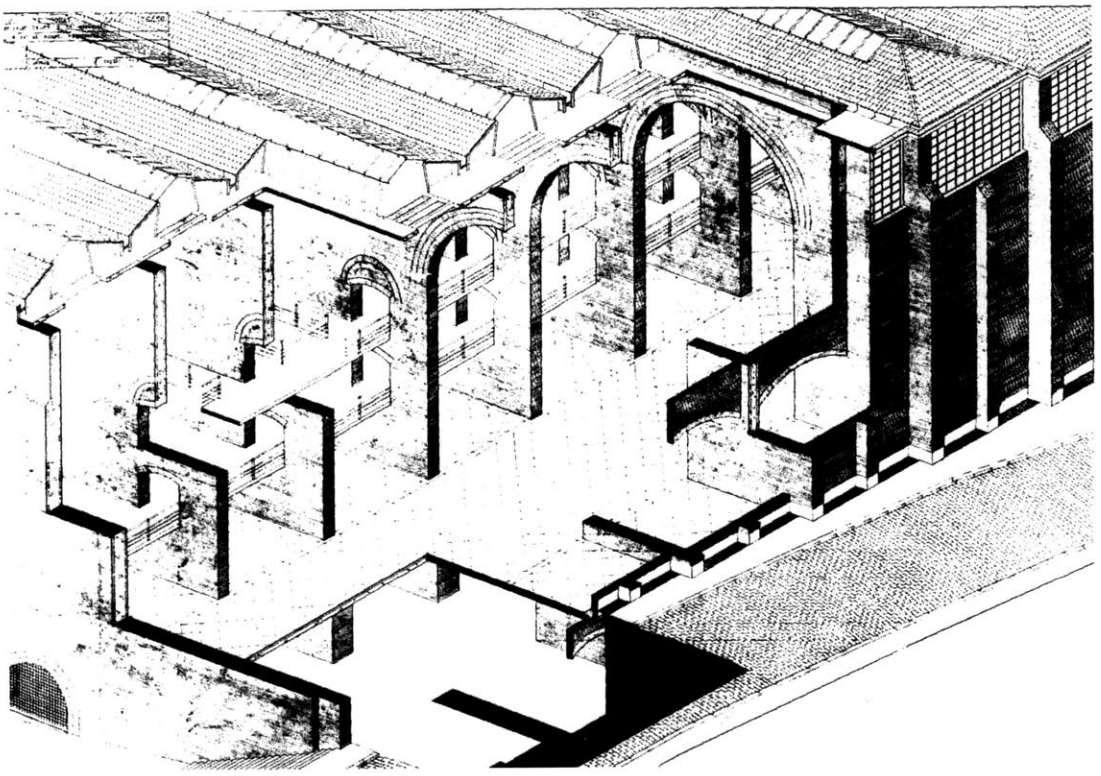


Fig. 87 Mérida museum, longitudinal cut axonometric

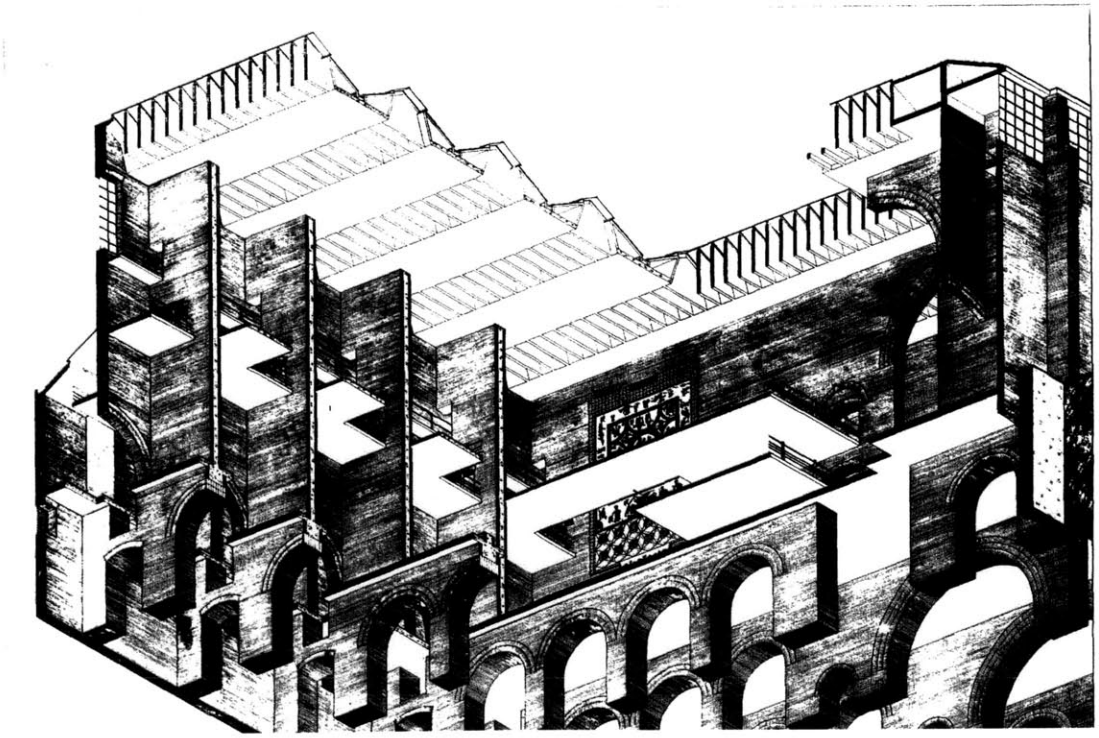


Fig. 88 Mérida museum, transversal cut-axonometric

Previsión Española, Seville (1982-88)

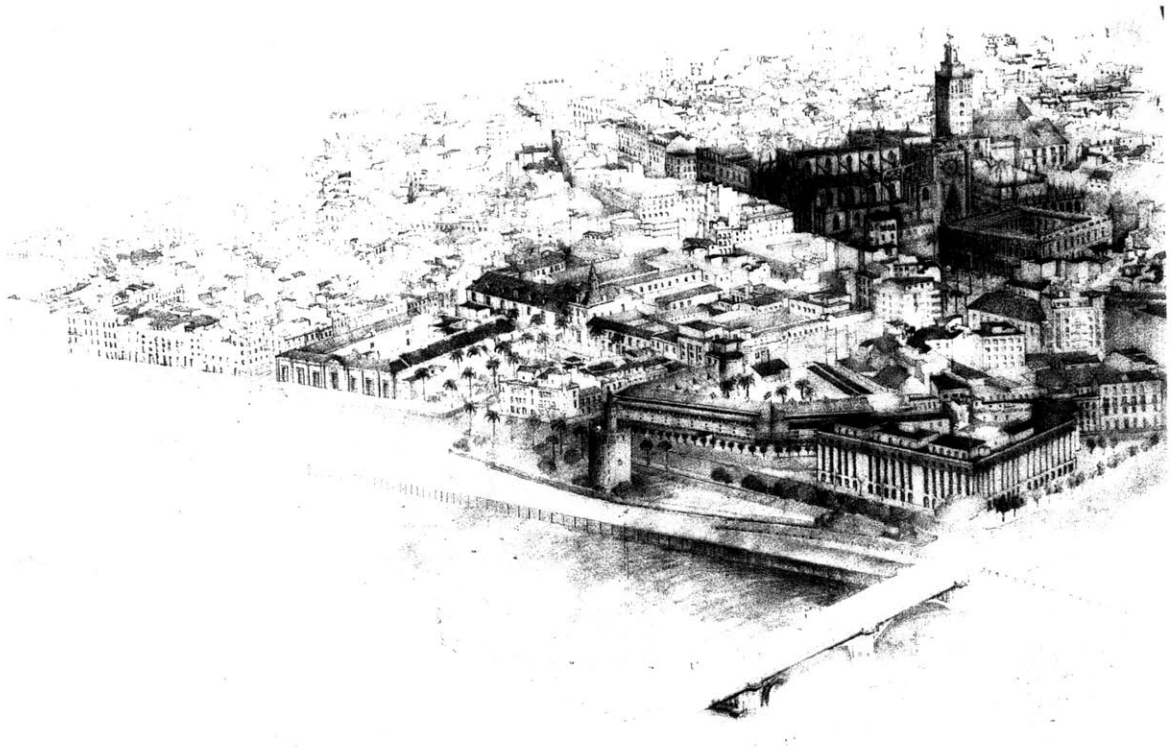


Fig. 89 Previsión Española

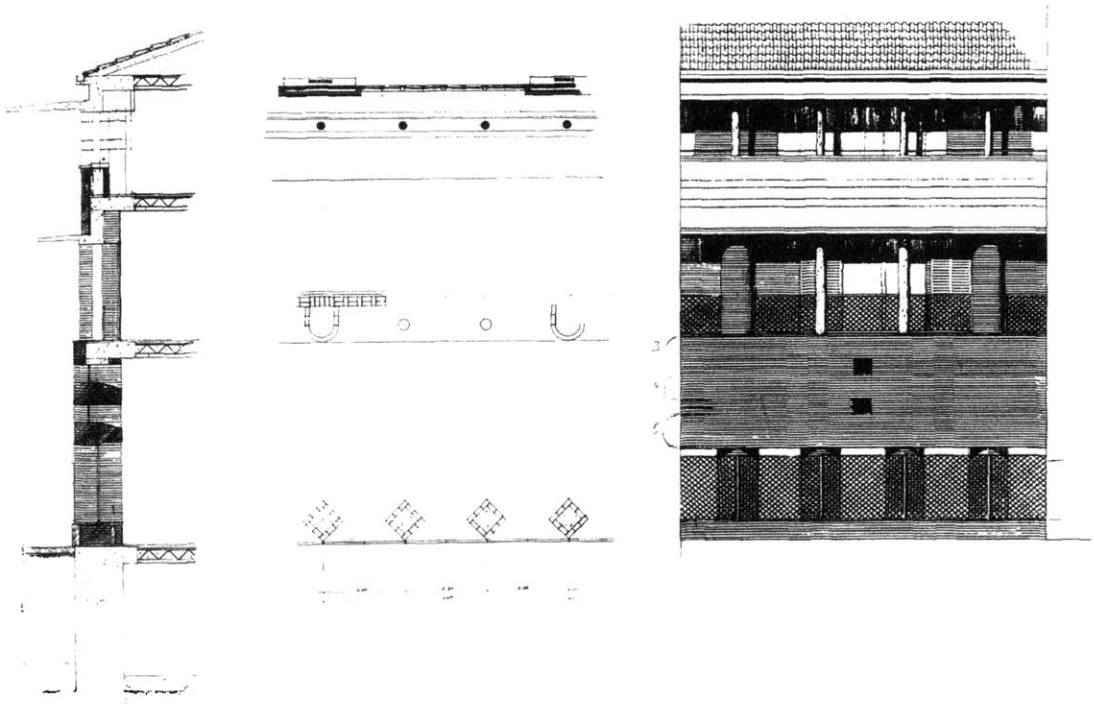


Fig. 90 Elevation detail

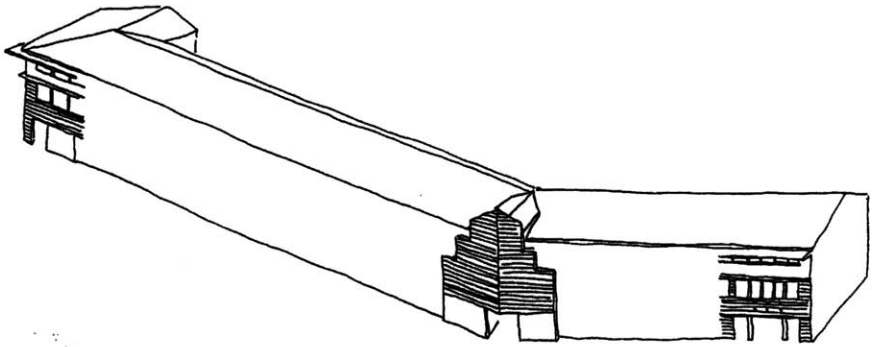


Fig. 91 corner treatment

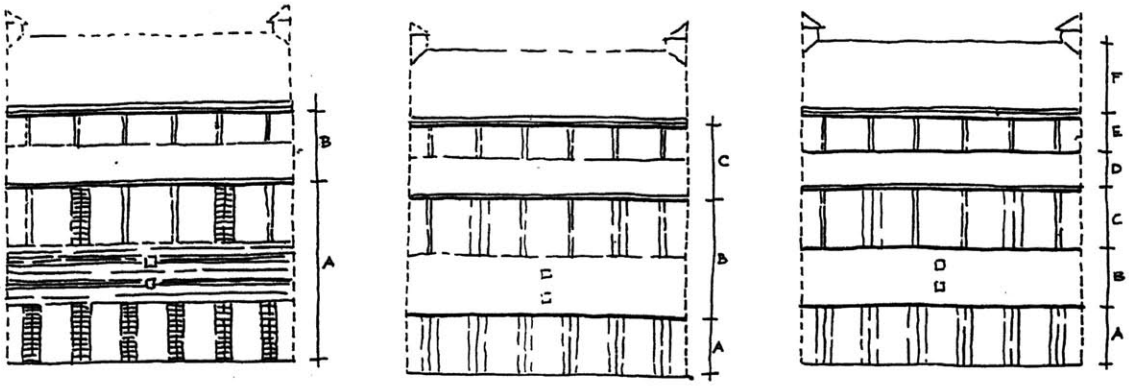


Fig. 92 analysis of main façade division

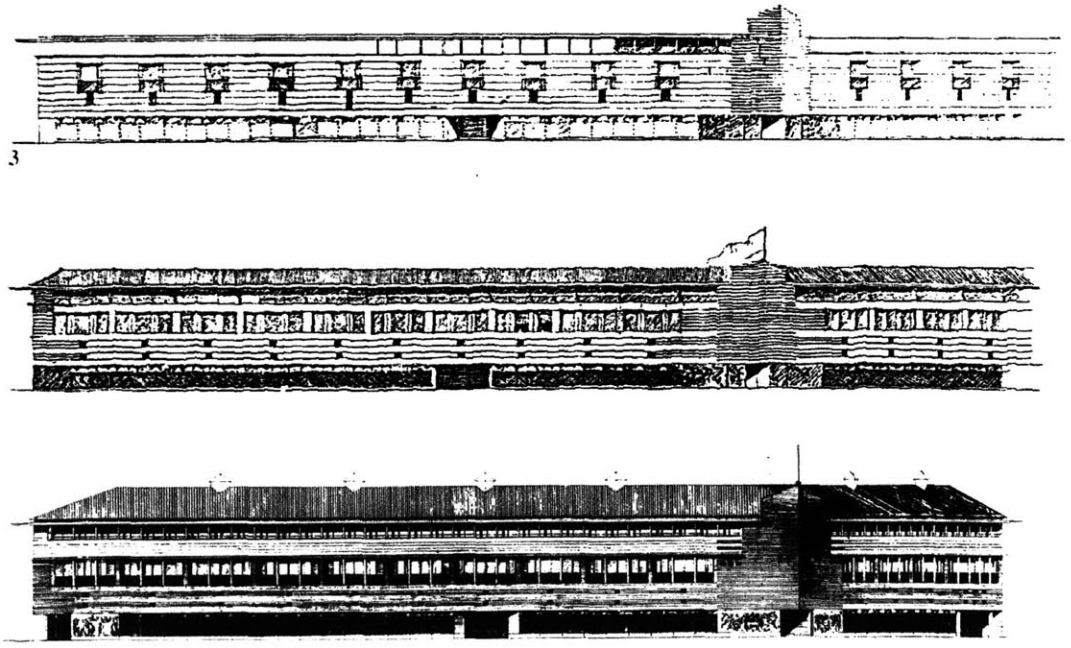


Fig. 93 Main façade: initial croquis, study, final

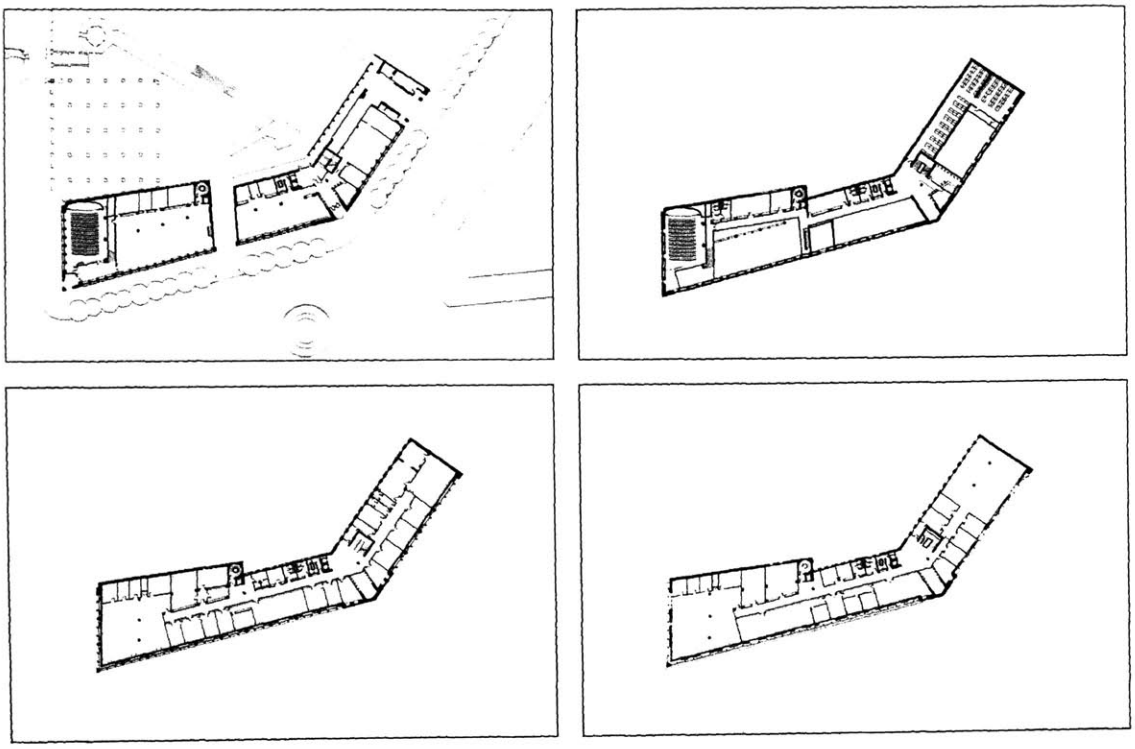


Fig. 94 Previsión Española, plans

Fig. 95 Site plans: initial condition, final plan, actual condition

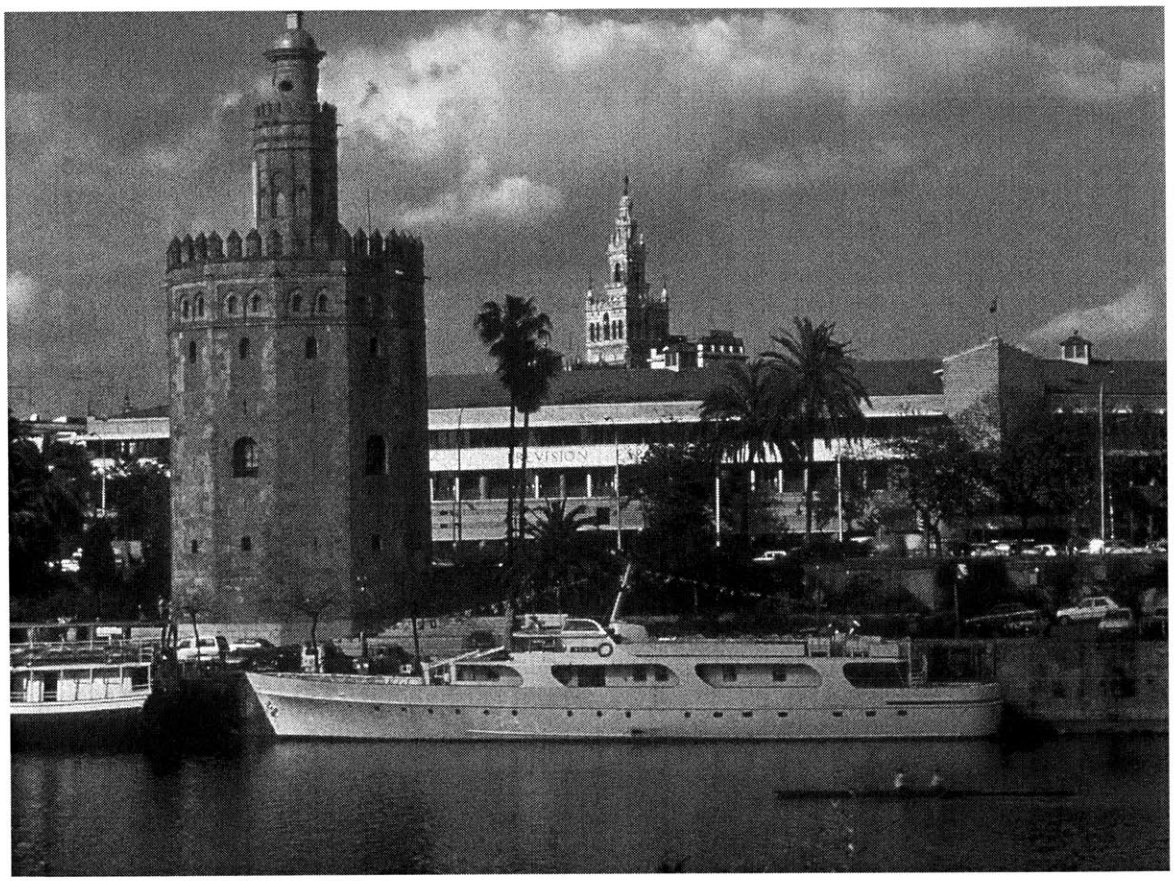


Fig. 96 View from the Guadalquivir river

El Kursaal Auditorium, San Sebastián (1989-99)

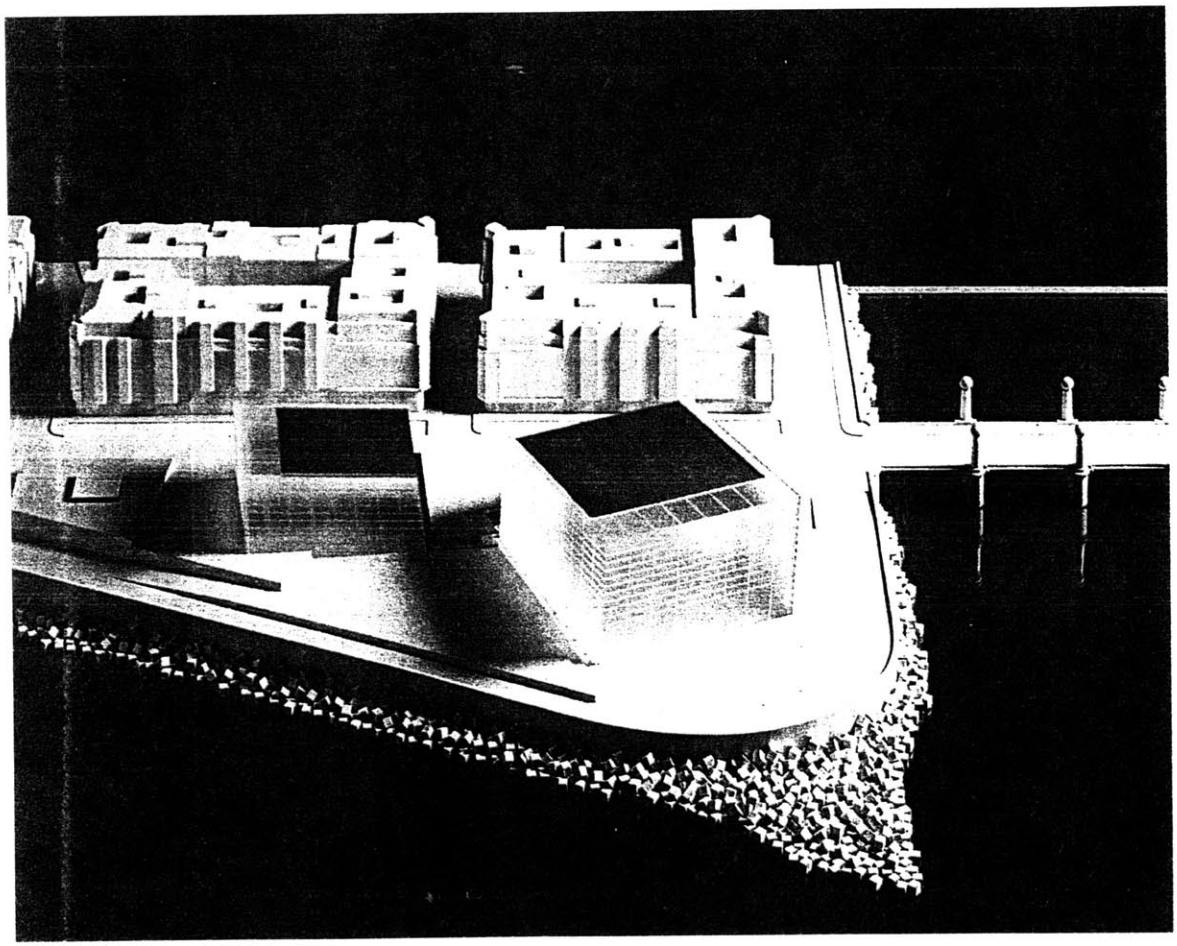


Fig. 97 El Kursaal, competition model (1990)

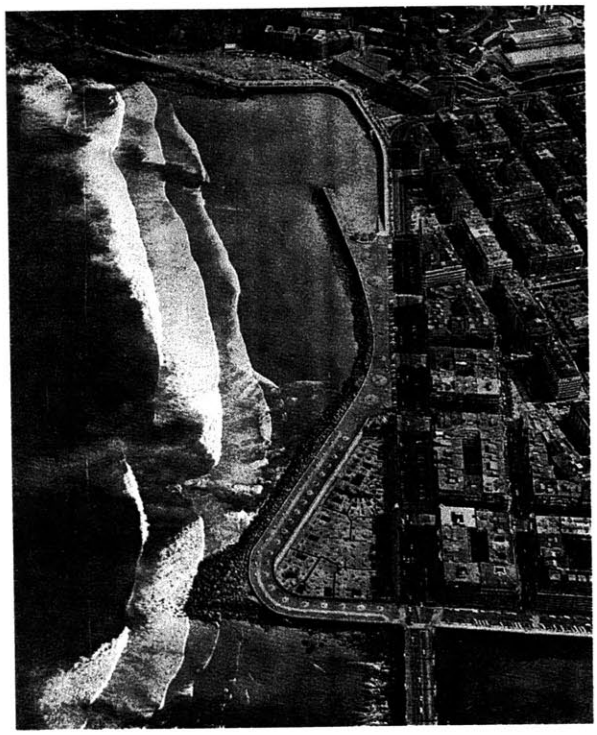


Fig. 98 Site K, San Sebastián

Fig. 99 Moneo's competition entry, perspective

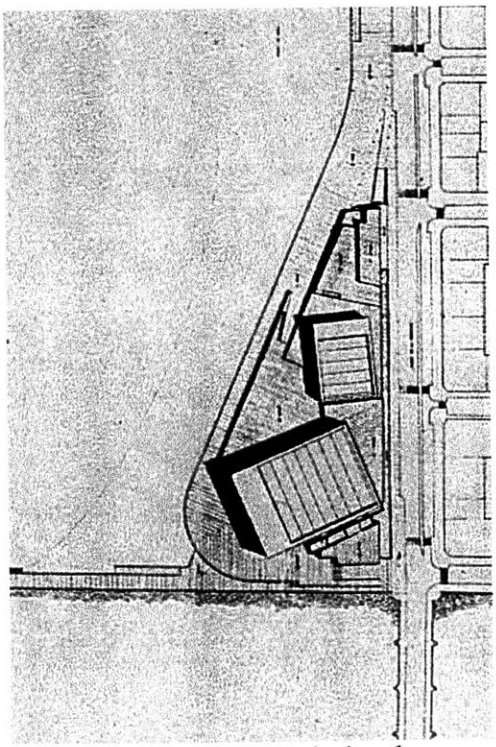


Fig. 100 El Kursaal, site plan

Fig. 101 Alvar Aalto Finland Hall, 1962

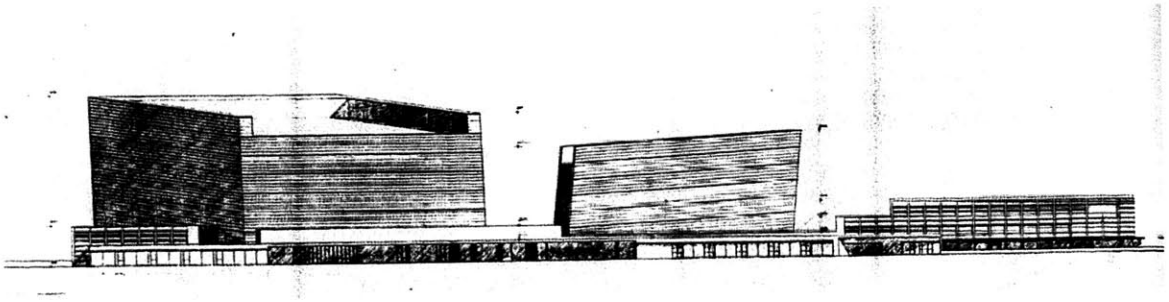


Fig. 102 El Kursaal, Elevation from Zurriola Avenue

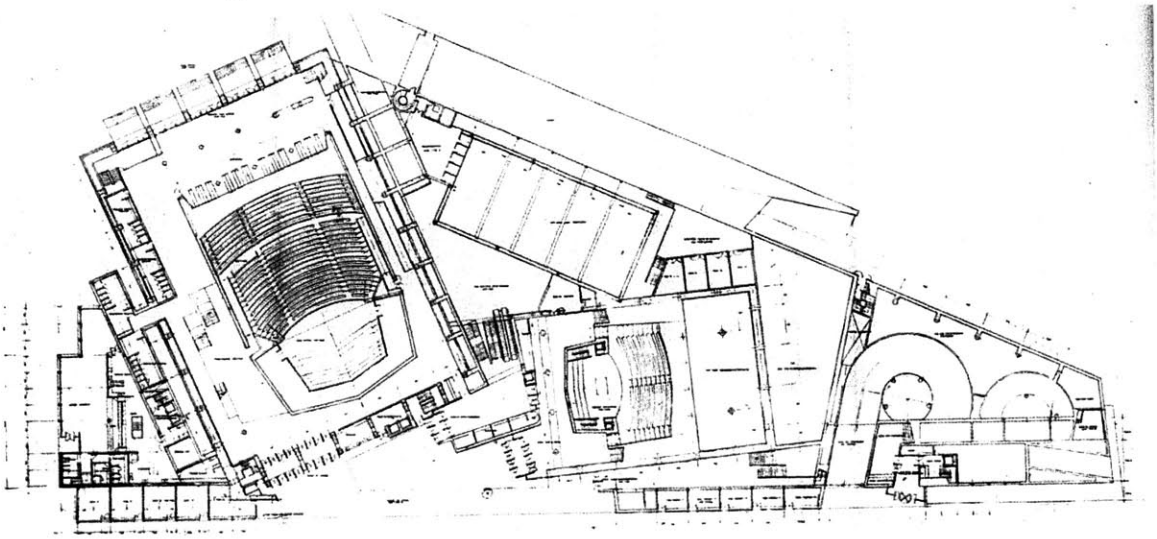


Fig. 103 El Kursaal, ground floor plan

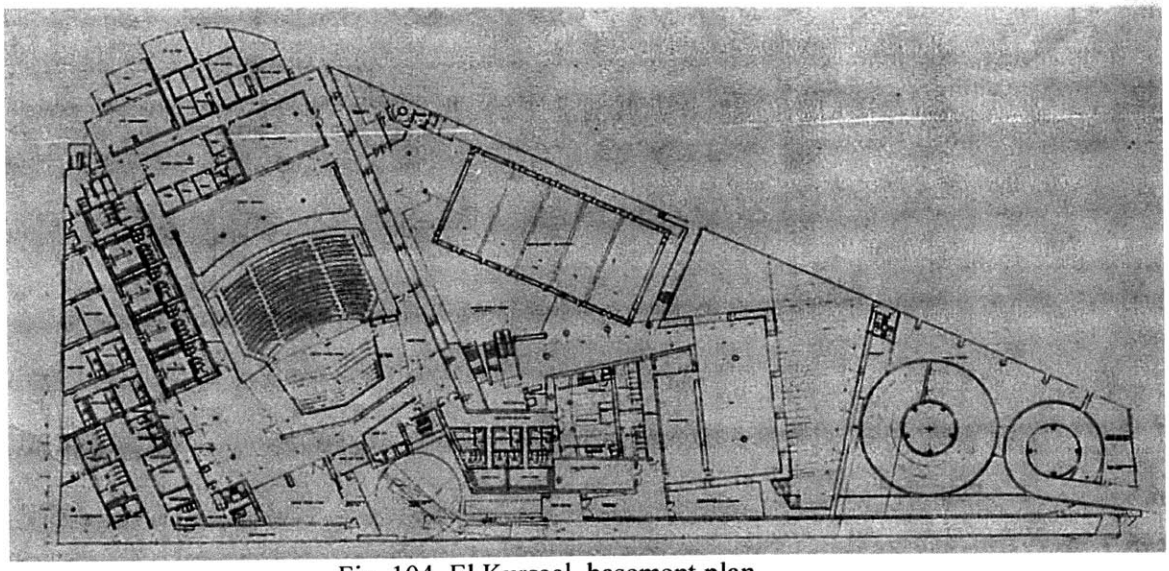


Fig. 104 El Kursaal, basement plan

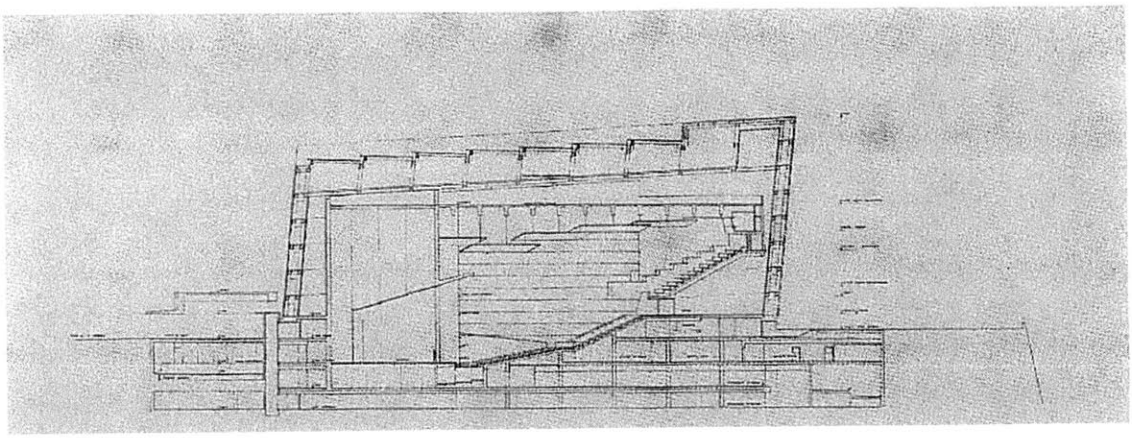


Fig. 105 El Kursaal. Auditorium section

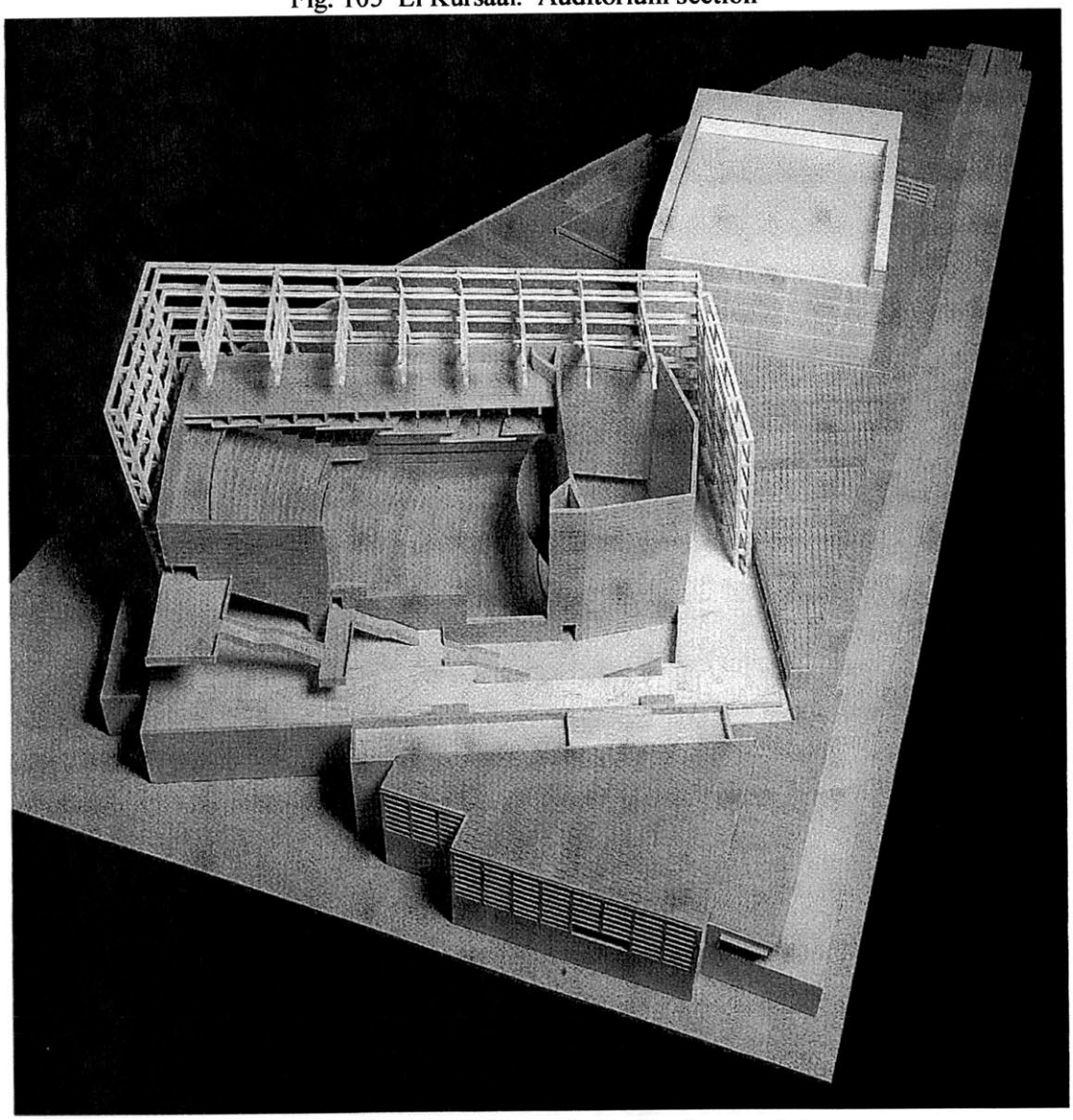


Fig. 106 El Kursaal. Auditorium model

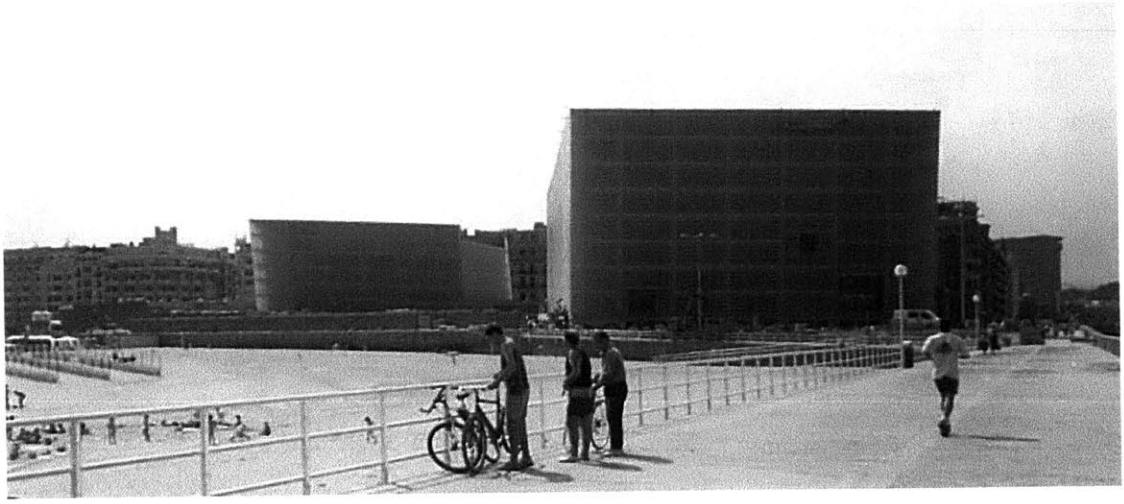


Fig. 107 El Kursaal. View from the sea

Fig. 108 El Kursaal.Auditorium foyer

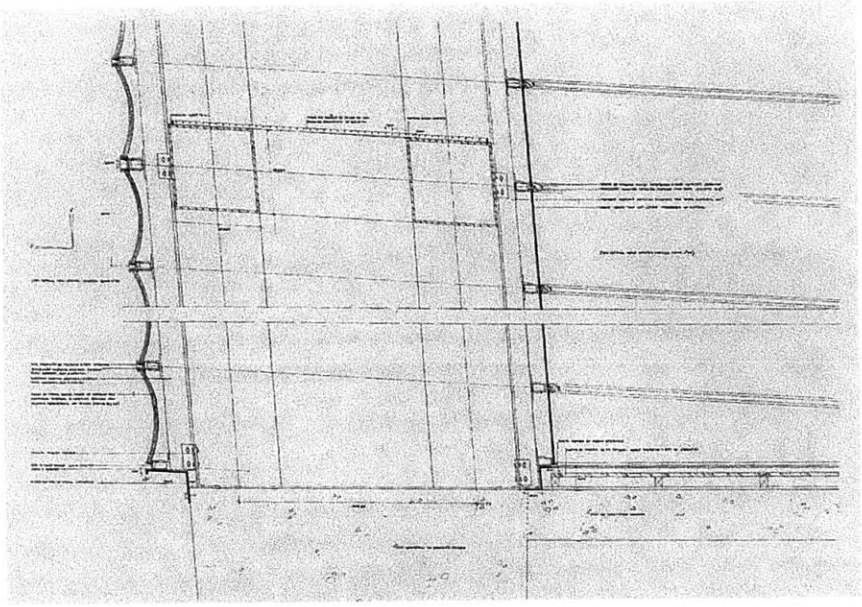


Fig. 109 El Kursaal. Glass wall detail.

Fig. 110 Auditorium (August 1999)

Fig.111 Rafael Moneo on site visit

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