



全国高等学校建筑学学科专业指导委员会推荐教学参考书

# 建筑专业英语 学习教程

徐良 汪丽君 舒平 编



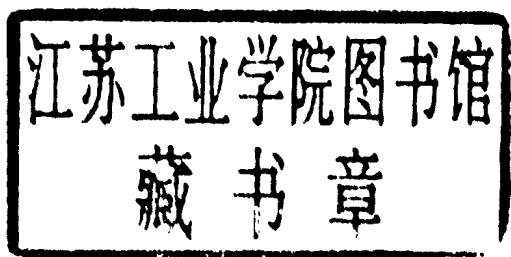
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# 建筑专业英语学习教程

English Reading Course for Architecture

徐 良 汪丽君 舒 平 编



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# 全国高等学校建筑学学科专业指导委员会推荐教学参考书

## 总 序

改革开放以来,我国城市化进程加快,城市建设飞速发展。在这一大背景下,我国建筑学教育也取得了长足的进步。建筑院系从原先的“老四校”、“老八校”发展到今天的80多个建筑院校。在建筑学教育取得重大发展的同时,教材建设也受到各方面的普遍重视。近年来,国家教育部提出了新世纪重点教材建设、“十五”重点教材建设等计划,国家建设部也做出了相应的部署,抓紧教材建设工作。在建设部的领导下,全国高等学校建筑学学科专业指导委员会与全国各出版社合作,进行了建筑学科各类教材的选题征集和撰稿人遴选等工作。目前由六大类数十种教材构成的教材体系已建立,不少教材已在撰写之中。

众所周知,建筑学是一个具有特色的学科。它既是一门技术学科,同时又涉及文化、艺术、社会、历史和人文领域等诸多方面。即使在技术领域,它也涉及许多其他相关学科,这就要求建筑系的学生知识面十分丰富。博览群书增进自身修养,是成就一个优秀建筑师的必要条件。然而,许多建筑专业学生不知道课外应该读哪些书,看哪些资料。许多建筑学教师也深感教学参考书的匮乏。因此,除了课内教材,课外的教学参考书就显得十分重要。

针对这一现象,全国高等学校建筑学学科专业指导委员会与天津大学出版社决定合作出版一套建筑学教学参考丛书,供建筑院系的学生和教师参考使用。丛书的内容覆盖建筑学的几个二级学科,即建筑历史与理论、建筑设计及其理论、城市规划及其理论和建筑技术科学,同时也囊括建筑学的各相关学科,包括文化艺术和历史人文诸方面。参考丛书的形式不限,有专著、译著、资料集、评论集等。在这里我们郑重地向全国的建筑院系学生和教师推荐这套建筑学教学参考丛书,它们都是对建筑设计教学具有重要价值的参考书。

建筑学教学参考丛书中的各单册将陆续与广大读者见面。同时,我们呼吁全国的建筑学教师能关心和重视这套丛书。希望大家积极为出版社和编审委员会出谋划策,提供选题,推荐作者,使这套丛书更加丰满,更加适用,能为发展中国的建筑教育和中国的建筑事业做出贡献。

全国高等学校建筑学学科专业指导委员会



## 建筑学教学参考丛书

### 编审委员会

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## 序 言

每一种学科都需要文字,需要语言才能够存在。没有专门的语言和经过定义的专有名词,就无法在一个研究的领域中达到沟通的目的。进入新世纪后,随着中国的建筑设计与世界建筑界的逐渐接轨,对建筑及其相关专业的学生和执业人员的专业外语水平特别是专业英语水平提出了更高的要求。

“专业英语课”作为各高校本科教学过程中的必修课,由于过分偏重专业词汇和建筑理论,目前一般由各建筑学院自行组织有一定语言基础的本专业教师开设,而不能由外语学院的普通外语教师开设,因而目前国内系统的建筑专业英语教材和参考书尚少,从而导致“专业英语课”的开设不够系统和标准。本教学参考书的编写弥补了这种缺憾,从理论分析和实践考察的双重视角,从多方面收集有关建筑专业的英语文章,内容涉及国内外重要的建筑历史和理论、建筑工程实例以及著名建筑师的生平和常用建筑词汇表。本书资料详实,结构严谨,文章选择恰当,涵盖面比较广泛,话语平实流畅,词汇难度适中,是目前国内同类书中论述较为全面和成效显著的成果。本教程适合建筑及其相关专业的学生和执业人员提高专业英语阅读水平使用。因此被全国高等学校建筑学学科专业指导委员会批准作为推荐教学参考书出版。

本书在编撰过程中参考和查阅了大量相关书籍,其中:

Part One 内容及图片主要参考 *Today Architecture* 一书;

Part Two 内容及图片主要参考楼庆西的 *Historic Chinese Architecture, Ancient Chinese Architecture*, 《中国建筑史(第四版)》;

Part Three 引用的案例主要参考 *Perkins & Will: Selected and Current Works*, *Terry Farrell, Hospital Buildings*, *Hopkins: The Work of Michael Hopkins and Partners*, *Urban Space*, *The World of Architecture* 等书,以及 *GA OOCUMENT*, *J.A.* 等杂志;

附录部分的人物简介参考 *Architecture in the Twentieth Century*;

词汇参考《建筑,园林,城市规划名词》。

由于编者各方面的知识水平有限,对编写过程中存在的欠妥之处,在此,恳请广大读者给予批评指正。

最后,借此机会,谨向曾为本书的顺利出版提供帮助的朋友们致以衷心的感谢。

编者

2008年3月

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# Part One

## Contemporary Architecture

# Unit One

## The Modernist Legacy

[1] Attempting to interpret the beguiling array of colours that make up the spectrum of architecture today can be confusing, since the strands that connect the various movements, as well as the edges that separate them, are difficult to discern. The refracting prism that has created this spectrum is Modernism, however improbable that may seem.

[2] Modernism, despite repeated declarations to the contrary, is far from dead; however, at the turn of the twentieth century, the very belief in progressivism, or the teleological notion that history moves inexorably forwards and upwards, that Modernism served to inculcate and sustain, has been called into question. Yet there is a growing realization that the modernist project is far from over and, indeed, may now be entering its culminating phase. That realization includes the caveats that “functionalism” — as Modernism was characterized by its critics when they pulled out the long theoretical knives in an attempt to slay it in the early 1970s — is as inadequate a justification for design as the deliberate silencing of historical or cultural imperatives is as a method of leveling social differences. There is no doubt that an awareness of the irreparable damage caused by the culmination of rapid industrial growth in the West has, since the 1960s, made people question the goals of increasing technological change, and seek to broaden the definition of both technology and development to include concepts qualifying these terms, such as “intermediate technology” and “sustainable development”; and yet, Modernism — and the ideals that it symbolized — remains a powerful force, coexisting with and modifying further the refractions that it has created.

[3] There is, of course, an explicit danger involved in attempting to identify distinct movements in contemporary architecture. Nominalism — or the urge to attach names to discernible trends or ideas — is increasingly generated from the rising influence of consumerism that now guides architects and critics as much as it does every other facet of contemporary life; and it is now rampant, making it difficult to separate fact from fantasy, or reality from the hype surrounding the latest commercial enterprise masquerading as theory. If this danger is viewed differently, however, and used to advantage, the task of differentiation becomes much easier. The intriguing feature of nominalism is that in our own increasingly image-conscious world, the act of giving something a title has the effect of making it real. In retrospect, this is not a new phenomenon; the term “gothic”, for example, was used by Renaissance artists and architects as a pejorative to define a competing theoretical construct which they wanted to characterize as barbarian: the destroyer of the classical tradition they were trying to revive. More pertinently, the Modern Movement — which is the starting point for each of the discernible initiatives discussed in this book which react to it in either a positive or negative way — was not itself legitimized until the publication of *The International Style*, written by the young Philip Johnson and his co-author Henry-Russell Hitchcock following the pioneering Modern Architecture: International Exhibition they curated at the Museum of Modern Art in New York in 1932. The basic dynamic evident in that act — of a name being allocated to a distinctly identifiable activity by discerning observers and that name, once recognized, causing consolidation

and legitimacy as well as notoriety for those involved — established a pattern that has continued ever since.

[4]The plethora of sub-styles and “isms” that can be detected today can mostly be traced to the moment when the Modern Movement was conveniently declared deceased by critics in the mid-1960s; and each time a new movement is isolated and a name coined for it, the length of the cycle tends to accelerate, leading to a shorter and shorter “half life” or fewer minutes of fame. This is due in part to the rapidly diminishing tolerance for stability in a world that has become accustomed to novelty and change, and the cycles of fashion and consumption have also begun to overlap, making parts of the spectrum even more difficult to discuss in isolation. The need for such a discussion, however, is long overdue. William Curtis, who has been one of the few historians to attempt a measured overview of the significant theoretical directions of twentieth-century architecture, sums up the issue best when he says: “The historian who identifies with the interests of a single school or clique sacrifices the possibility of a balanced view ... Events, ideas, personalities blend into longer perspectives (and) movements once claiming complete opposition to one another are found to have shared some common ground ...” The problem with trying to formulate such a balanced view, however, is that the various “schools” and their identifiable agendas tend to blend together, making comparative assessments difficult. Mindful of the sacrifice that Curtis identifies, this book is an attempt to make some sense of the myriad claims to truth being made by architects and critics today by first specifying what they are, and then examining their primary features, using key examples to illustrate their chief characteristics. The selection, divided into regional, stylistic and global influences, identifies a number of distinct areas, each of which represents an important contemporary issue. In

doing so, it offers a survey of the disparate architectural activity of the last thirty years, but maintains, at the same time, a weather eye on the future.

[5]Amid the scepticism that now surrounds the idea of progress, it is difficult to recall that there was a time, little over a century ago, when people believed that the future could be better than the present or the past. Modern architecture, which is now regarded as the singular tectonic manifestation of that belief, actually sprang from many apparently disparate sources over an extended period of time before being identified as an International Style as we have seen. The common theme that unifies these strands is the Industrial Revolution and the social changes that derived from it: factory production rather than domestic manufacture; the concentration of production and workers in cities, and the social upheaval that this caused. On another level, the new activities that industrialization fostered made it necessary to conceive new building types without historical precedents for architects to fall back on.

[6]The history of modern architecture from the middle to the end of the nineteenth century is one of coming to terms with these two phenomena: radical social change and new building types executed in materials not previously available. The challenge to French neoclassical doctrine, as taught in the Ecole des Beaux-Arts, and presented by architects such as Henri Labrouste in his use of an iron structure inside a masonry shell in both the Bibliothèque Ste-Geneviève and the Bibliothèque Nationale in Paris of 1840 and 1868, respectively, comes to mind, as does the Auditorium Building in Chicago, 1889 by Adler and Sullivan, each of which exploited new technologies behind highly crafted external envelopes (Figure 1–1). Contrast these attempts to reconcile changing conditions with the impassioned lectures delivered by William Morris, the founding father of the English Arts and Crafts Movement, about the



Figure 1-1 LOUIS SULLIVAN AND DANKMAR ADLER,  
Auditorium Building, Chicago, 1889

adverse effect of industrialization on the traditional art of architecture, which he characterized as: “helpless and crippled amidst the sea of utilitarian brutality ... on the one hand it is cut off from the traditions of the past, on the other from the life of the present”.

[7]Some historians point to the demands of a far-flung Empire, as well as the profit to be made from developing it, as the reason why the ethic of production, or what has been called “the élan of twentieth-century industrialism” evolved in Germany and not Britain. Germany was so eager to compete for the markets that Britain had established that it: “systematically studied the products of (its) competitor and by typological selection and redesign helped to forge the machine aesthetic of the twentieth century”. In lieu of the colonial source of low-cost resources, and a similar market for its goods that Britain enjoyed, Germany focused on product differentiation through high quality. The Deutscher Werkbund, founded in 1907, was dominated by the personality of the architect Peter Behrens, who had by then also been appointed head designer for one of Germany’s largest industries, the giant electrical concern AEG, in Berlin. The Werkbund was committed to the ideal of synthesizing industrial production and craft, and this ideal was further refined at the Deutscher Werkbund Exhibition in Cologne,

1914, which stressed mass-production, high standards and perfected “types”, in combination with individual creativity in order to increase the national share of global markets.

[8]The success of this campaign is unfortunately most evident in the killing power of the armaments produced for the First World War, which followed shortly afterwards. Germany’s defeat in that conflict, and the financially crippling effects of the Treaty of Versailles, led to its sudden economic collapse. Peter Behrens wrote in 1920 about food shortages, runaway inflation, the decline in public services and transport, and the public demoralization that resulted, calling for a “transformation” that would lead to a “passionate, moral renewal of puritanical severity” based on “the imagination of the mind and the power of the idea”. It is crucial to an understanding of this formative stage of modern architecture to appreciate the missionary zeal with which this transformation was sought. Many of the leaders of the movement, such as Walter Gropius and Mies van der Rohe, had fought in the trenches and saw industrial production as the only salvation from the morass that Behrens described. The Werkbund Pavilion in Cologne (Figure 1-2), designed by Gropius and Adolf Meyer, illustrated the level of idealism accorded to production before the War, the close association between industry and cultural identity, and the essential relationship between this new means of expression and the academic tradition. Hermann Muthesius, who had praised the British Arts and Crafts tradition in *The English House*, published in 1904, proposed a craft-based curriculum in design education, integrated with industrial standardization as the most direct route to German technical superiority in the international marketplace.

[9]The Bauhaus (Figure 1-3), founded after the War in 1919, marks the change in philosophical direction that the conflict caused. In its proclamation, Walter Gropius called for “a

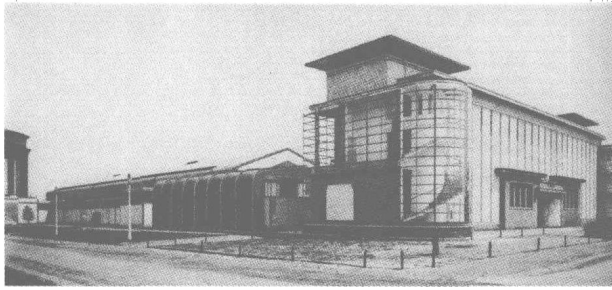


Figure 1-2 WALTER GROPIUS AND ADOLF MEYER, Werkbund Pavilion, Cologne, 1914



Figure 1-3 WALTER GROPIUS, Bauhaus, Dessau, 1926

new guild of craftsman, without the class distinctions which raise an arrogant barrier between craftsman and artist". He envisioned the unity of art and architecture implied in the name of the school, based on the word *Bauhütte*, or mason's lodge, reviving the gothic ideal that Morris promoted. It was no coincidence that Lyonel Feininger's woodcut for the cover of the Bauhaus proclamation was a stylized gothic cathedral: nascent Modernism in the German crucible of social crisis held on to its moral, aesthetic and religious Arts and Crafts origins which were pragmatically adapted to nationalistic purpose. Kenneth Frampton has shown how this was manifested in other contexts: Le Corbusier's "Classical Mechanism", for example, was based on "Greco-Gothic principles", and many German architects, such as Heinrich Tessenow, sought a "will to form" based on "a purified vision of the English Arts and Crafts movement".

[10] Mention of Tessenow, who is known for his attempts to reinterpret a vernacular syntax in a normative manner, also raises the is-

sue of traditional roots in Modernism. These are manifested in such diverse forms as Charles Rennie Mackintosh's efforts to combine the Scottish vernacular with methods of industrial production at the Glasgow School of Art, 1897–1909; Mies van der Rohe's craft-based roots in Aachen, Germany; and Behrens' "project to romanticize industry in his AEG Turbine Factory in Berlin, 1909, which carries with it formal echoes of traditional German barns, perhaps to make its newly urbanized rural workers feel more at home (Figure 1-4).

[11] Whatever the extent of Western needs after the First World War, those in Russia was greater. Industrialization was underdeveloped and the housing crisis was severe. The common assumption that Le Corbusier with his Centrosoyus Building in Moscow, 1929, was delivering modernist wisdom from on high to a primitive Eastern outpost is superficial, however; Russia in the post-revolutionary period gave as much to the fledgling movement as it got. The Constructivists, who enjoyed a brief pre-eminence until Stalin frowned his disapproval, demonstrated the results of unrestricted experimentation as well as opportunities to realize significant projects, and Russia was an architectural testing ground of enormous and greatly underestimated importance. The creative cru-

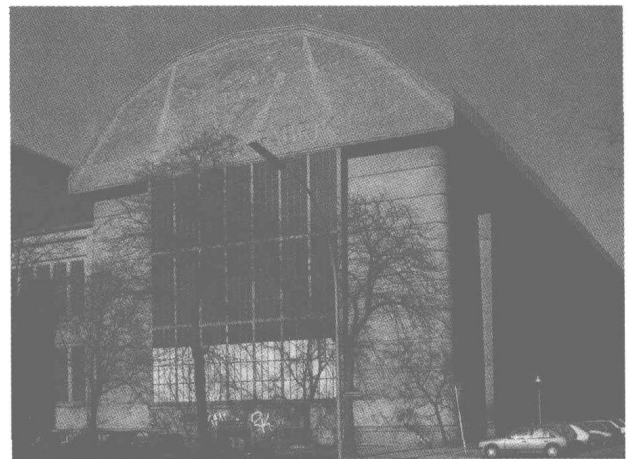


Figure 1-4 PETER BEHRENS, AEG Turbine Factory, Berlin, 1909



cible that Moscow represented at that time is recorded in projects such as Ivan Leonidov's proposal for the Lenin Institute of Librarianship, 1927, which offers a synthesis of form and function every bit as compelling and sophisticated as that of Le Corbusier and his contemporaries in the West (Figure 1-5).

[12]Russia was also a magnet for Western architects, eager to observe such new developments at first hand, and to exhibit work of their own. Gropius, Mies van der Rohe and Erich Mendelsohn all held exhibitions in Moscow, arranged by the architect El Lissitzky who was one of the most important conduits between the USSR and Western Europe; he is generally credited with exposing Europe to Soviet art, a generator of the *Neue Sachlichkeit* — New Objectivity — in Germany in the mid 1920s, which was later proposed by Le Corbusier as a formal alternative to Expressionism and was ratified as doctrine by the Congrès Internationaux d'Architecture Moderne (CIAM) conference in 1933. Begun in 1928, CIAM was

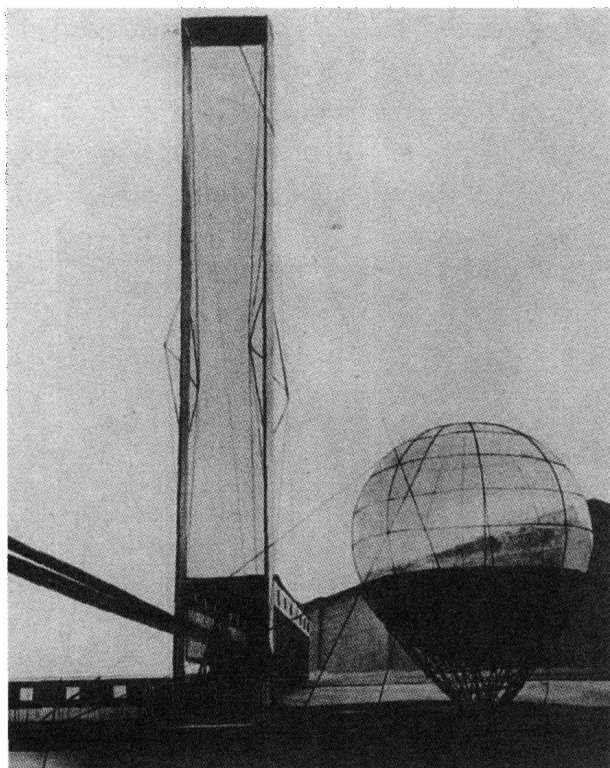


Figure 1-5 IVAN LEONIDOV, Lenin Institute of Librarianship, Moscow, 1927

a formative device in the many housing programs launched in Germany before the Second World War.

[13]The War, of course, brought the first phase of the Modernist project in Europe to an abrupt close, and many of its greatest proponents fled from the tide of Nazism that flooded across the continent: the two former heads of the Bauhaus, for example, both came to lead architecture schools in the United States — Mies at the Illinois Institute of Technology, and Gropius at Harvard where each was to have a profound influence on an emerging generation of American architects.

[14]For architects like Le Corbusier, who remained in Europe throughout the War, early post-War approximations of a utopian future such as his Unité d'habitation at Marseille, 1947–1953 eventually gave way to a more humane alternative in the mid-1950s, prophesized by his chapel of Notre Dame du Haut at Ronchamp, 1950–1954 (Figure 1-6). By then, of course, the seed pod of Modernism had been successfully borne to the United States by German émigrés such as Gropius and Mies, but they, like Le Corbusier, spawned far less talented imitators who aped their style but did not share the ideological history of the movement. When the architect hero Howard Roark in Ayn Rand's novel *The Fountainhead*, published in 1943, refuses to design and later threatens to destroy a building that does not



Figure 1-6 LE CORBUSIER, Unité d'Habitation, Marseille, 1947–1953

conform to his strict principles, readers are encouraged to equate modern architecture with purity of character; and it is clear that in the 1950s, Modernism in Europe and the United States was still synonymous with strong moral and social imperatives. However, the carefully woven and unselfrighteous monastic skein of the Modernists' garb, as well as the attempt to make Modernism the official architectural language of a socially responsible society, was ultimately lost in its commercialized translation from Europe into the United States mainstream.

[15]All that remained of the modernist equation of unlimited possibilities and a better life through good design after its dislocation in the United States was an awareness of the product, not the process. However, the desire for a style of architecture that could accommodate a more leisurely way of life after the War was very real, and Modernism initially held out the promise that it could deliver it to an increasingly demanding consumer society. Initiatives such as the Case Study House programme in Los Angeles in the late 1940s and early 1950s showed the American public how modern architecture could be both homely and affordable, and its sponsoring publication, *Arts and Architecture* magazine, encouraged its readers to follow the example of pioneers such as Charles and Ray Eames — whose own house, Case Study House #8, 1945–1949, is perhaps the most famous of the series — and to build in steel and glass, taking advantage of the benign local climate, and abandoning the tradition barriers between inside and outside in the process (Figure 1–7).

[16]By the end of the 1960s, however, the architectural climate had changed. With the onset of the media age, lingering idealism, eroded by a decade of protest in Europe and the United States, was slowly converted to an obsession with image. Over the next three decades this became complete and public awareness of design, characterized by the Good Design

movement of the early 1960s in Britain, focused on designers, name brands and product differentiation along with the increasing emphasis on advertising and consumerism that metastasized during the 1980s. Almost without knowing why, the public that had clamoured for ease of use and function after the War began to turn its attention to acquiring “designer” goods, and fashionable social status increasingly became dependent on wearing or collecting the correct selection of designer labels. Furthermore, the increased leisure time that was expected to result from labour-saving devices, which started to become available on a mass scale in the 1950s, has remained a chimera. Paradoxically, technology has increased working hours as instantaneous electronic communication makes it easier to remain in touch with headquarters, while the home office remains elusively out of reach.

[17]What has happened to Modernism — the only architectural movement ever to concern itself with the general public welfare — in

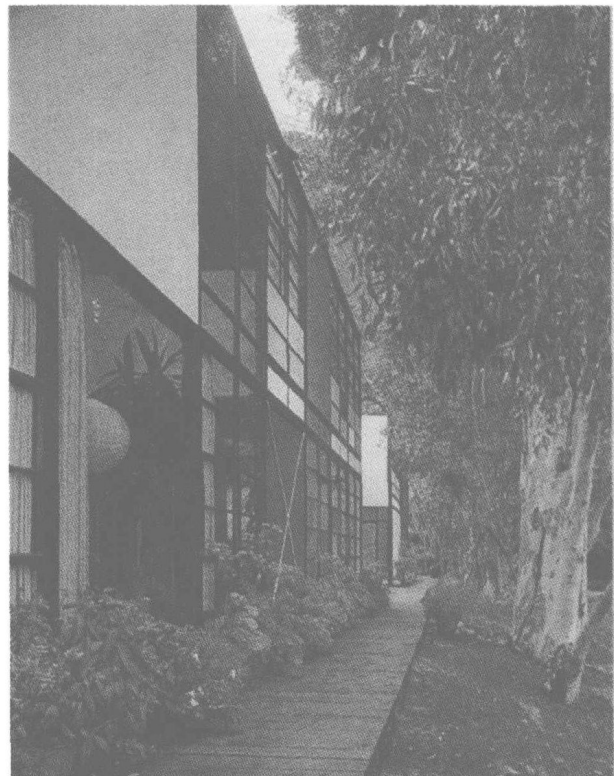


Figure 1–7 CHARLES AND RAY EAMES, Case Study House #8/Eames House, Los Angeles, 1945–1949

the process? Public agencies and planning departments have largely usurped the architect's traditional role in the city; and paradoxically as urban populations continue to grow, and the housing crisis worsens, "public housing" has become a pejorative term. It is no coincidence that it was the highly publicized razing of just such a public housing project in 1972 — Minoru Yamasaki's award-winning Pruitt Igoe development in St. Louis, Missouri, 1950–1954 — that was popularly seized upon by the critics as the final death knell of Modernism (Figure 1–8). The American architect Denise Scott Brown has argued more insistently than many others, that a rising tide of elitism has been responsible for architects abandoning the modernist mandate to improve the lot of the masses. Unwilling to have their principles soiled in the marketplace, she maintains, they abdicated this responsibility at a critical time, during the rapid growth of suburbia in the late 1950s and early 1960s, leaving the field wide open for developers. The New Urbanism that is emerging in America today may best be understood as an attempt to recapture that territory: the social responsibility that modern architecture ascribed to itself is best represented in this growing initiative; the first architectural movement to issue a charter and write a manifesto since the War.

[18] The continuing crisis in public housing in the West, a silent but potentially devastating issue, is over-shadowed, however, by the one



Figure 1–8 MINORU YAMASAKI, Pruitt Igoe Housing, St. Louis, 1950–1954

billion people who lack shelter elsewhere in the world, raising the pertinent question of the global position of Modernism today. The transition in Western economies from a heavy industrial to a service or information base that began in the 1970s means that the industrial activity that caused all the furore in the first place is happening again and will continue, in successive stages, for some time to come. This pattern of upheaval is matched in so-called the Third World economies. The rise of a middle class in India at the end of the 1990s, based on the increased production of consumer goods, is one startling example of such change, and there are many others. In such instances all of the phenomena that accompanied the first Industrial Revolution — such as rural-urban migration, urban overcrowding, poverty, pollution, resource depletion and environmental degradation — are taking place again, on an even greater scale than before. Meanwhile, Modernism has suffered the indignity of becoming just another historical style, and as such is the architectural style of choice in many developing countries in the throes of this process. The reasons for this mostly revolve around image. Having taken second place in the race towards "progress" over the last century and a half — or even worse, having been exploited to make the race possible — these emerging nations, for example, Malaysia, now appropriate all the physical trappings of the West as they begin to achieve economic success, and modern architecture in cities such as Kuala Lumpur is the most symbolically potent commodity available.

[19] The cycle of progress is faster this time around, however, as the social complications that are beginning to emerge in Japan indicate. The signs of anxiety and stress that are beginning to be evident in this model of post-war industrial development indicate how much the cycle from optimism to a sense of loss has accelerated in the last two decades. In many

instances, other than in Japan, architects from the developed or post-industrial world are providing the majority of the modernist images and this time they seem determined to get it right. Wherever such renewed attempts occur, there is a sense of returning to an incomplete project hastily abandoned before its time. Claims of universality are tacitly understood no longer to be possible in an increasingly pluralistic age; nor is the expression of complete faith in progress, or in public institutions described through monumentality. What is still evident, however, is a reopening of the dialogue about the architect's role in the public realm, as a steward of natural resources and an unparalleled generalist, along with the secret wish to believe in the potential of technology and the power of the individual imagination.

[20] Evolutionary psychologists have initiated a new field of scientific inquiry into what they propose is a mismatch between our genetic makeup and the dynamics of the modern world. In the course of studies on the human brain and the way it has changed as a result of natural selection they have put forward a "mismatch theory" which connects higher levels of anxiety, depression, alienation, suicide and social violence to the advent of the industrial and post-industrial age. In America alone, they note, rates of clinical depression have been doubling every ten years and after automobile accidents and homicides, suicide is the third most common cause of death among young adults. Anxiety and social and environmental alienation can cause such unhappiness to develop into chronic, debilitating depression or what has been characterized as "the disease of modernity".

[21] This dislocation is the first clue to the difference between Modernism, as a historical period, and modernity as the contemporary condition. The threshold was crossed when optimism about the future changed to pessimism; Fredric Jameson has suggested that the as-

sassination of President Kennedy in 1963 — possibly the first truly communal media event and the real beginning of the media age — is the psychological dividing line. As tempting as that theory is, the real issue is more complex, and a whole host of additional factors as epic as international financial disaster, the threat of nuclear destruction, and incurable viral plagues, have to be brought into the argument, along with many other possibilities.

[22] It now takes a determined leap of faith to recall that the fruits of industrial production were once enthusiastically embraced as the means to unlimited possibility, and that the complex group of forces now termed "modern architecture" represented that belief, as well as the idea that those advantages could be shared by everyone. The diversity of directions that will be described later indicates the extent of the attempts to rediscover this faith — or to propose viable contemporary alternatives — that can be found today.

[23] The conventional view of recent history is that Modernism, seen as a unified architectural aesthetic, was supplanted by Post-Modernism in the mid-1960s. Modernism, however, was far from singular and continues to thrive in various manifestations, each of which has a distinct tradition of its own. Considered in the order in which they are discussed in this book, the review of significant contemporary influences begins with European Rationalism, which now has an especially devoted following in Germany, Luxembourg, Belgium, Northern Italy and the Ticino but is not exclusive to these areas. It is extrapolated from that part of the modernist aesthetic that promoted a Platonic ideal of universal beauty, continuing a tradition that extends from the architects of the French Enlightenment, through the Ecole des Beaux-Arts, to architects such as Giuseppe Terragni (Figure 1–9) and Le Corbusier, whose work of the 1920s and 1930s perhaps represents the position best. Le Corbusier's concept of Purism,



which draws on rationalist precedent, is clearly a rendition of the primacy of ideal form over the exigencies of function that was also to concern the rationalist Louis I. Kahn for much of his career (Figure 1-10). In such a view, the possibility of alternative forms for a given program is

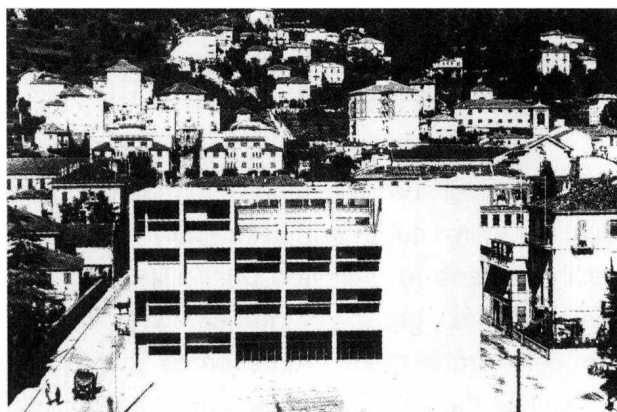


Figure 1-9 GIUSEPPE TERRAGNI, Casa del Fascio, Como, 1932-1936

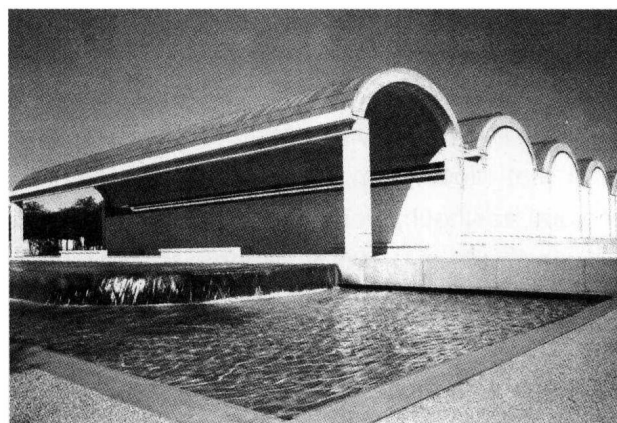


Figure 1-10 LOUIS I. KAHN, Kimbell Art Museum, Fort Worth, Texas, 1966-1972



Figure 1-11 ALDO ROSSI, Celebration Place Office Complex, Celebration, Florida, 1996

impossible, since only one ideal solution to each specific problem exists.

[24] After Kahn's death in 1974, the full responsibility for sustaining the search for pure platonic form fell upon the European Rationalists once again, led by architects such as Aldo Rossi (Figure 1-11), Mario Botta, Giorgio Grassi, Leon and Rob Krier, Oswald Mathias Ungers, and Josef Paul Kleihues, as well as the "School of Madrid". Each of these architects projected a particular layer of theory over that endeavour, ranging from Rossi's determination of types that have made up the formal structure of the city throughout history, to Vittorio Gregotti's premise about territory, expanded by Mario Botta into principles related to "building the site", to Ungers, construction of "cities in miniature" in a single building to offset atrophy in the urban environment. Europe generally has a better established civic tradition at higher densities than does North America, but expanding consumerism, so clearly explained by Fredric Jameson, has mechanistically begun to eradicate even this fundamental difference, pushing Rationalism into retreat on both sides of the Atlantic shortly after Kahn's departure from the scene. That situation has now changed, along with more realistic economic expectations and the rise of the political Right in Europe. Rationalism is finding a fresh voice and a newly enthusiastic following on the continent once again, irrespective of personal readings that individual practitioners layer over the hard-core principles of the movement.

[25] Rationalism is relative and atectonic, in the sense that it is afunctional and unconcerned with details in the conventional modernist sense, focusing on typologies instead. This distinguishes it from the technological tradition, and the attempts of architects and engineers to come to terms with new building types, such as factories and railroad stations at the turn of the last century. The two traditions thus diverge at the point where pragmatic em-