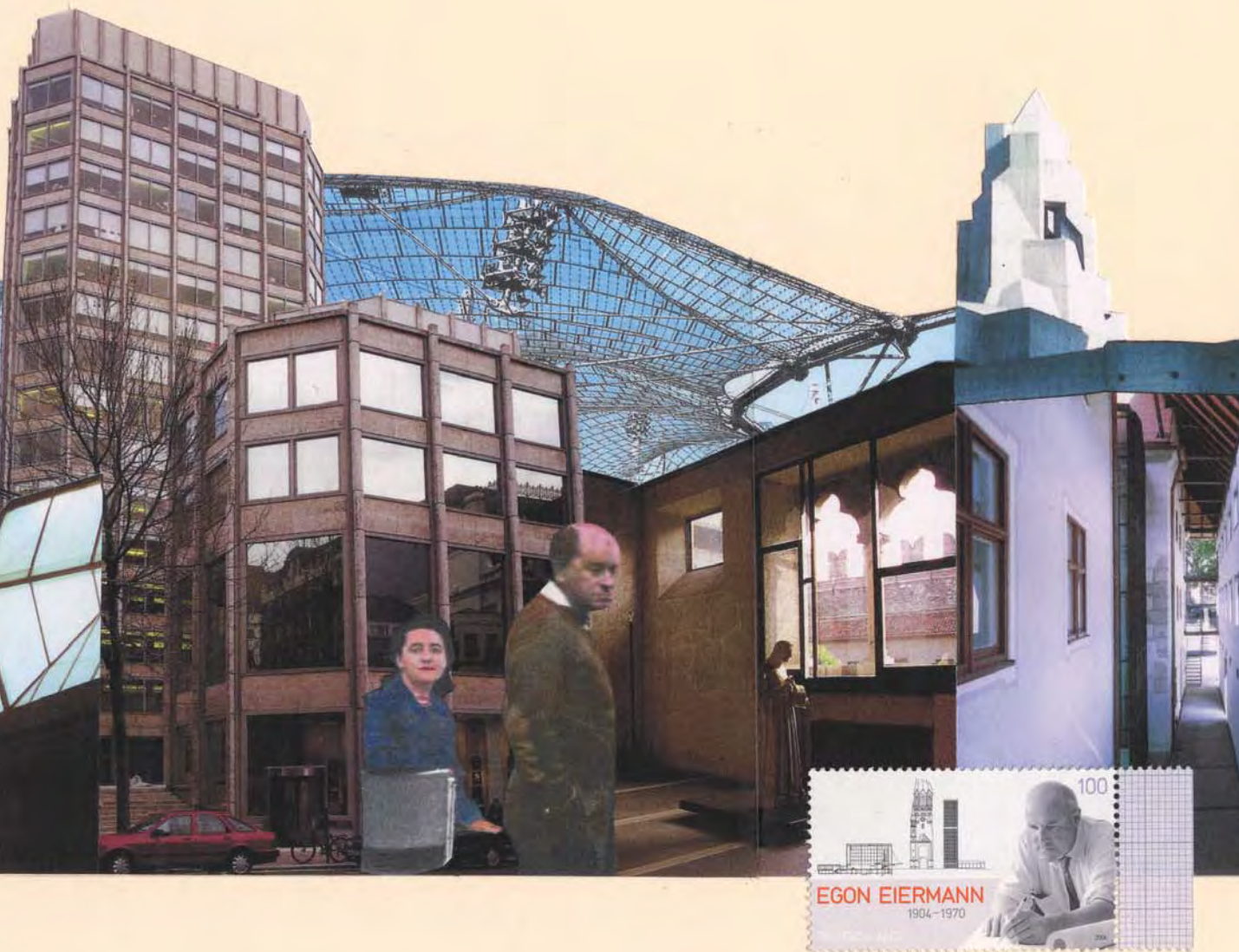


Modern Architecture Through Case Studies 1945-1990



Peter Blundell Jones & Eamonn Canniffe

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The extension of the case studies method into a second book has brought it into my own lifetime, involving several architects whom I met personally and whose works I have written up in architectural journals. At the start of the project Aldo Van Eyck, Ralph Erskine, Peter Smithson and Giancarlo De Carlo were still alive, and one rather took their great paternal presences for granted, but now that they are gone the chapters about them inevitably take on the character of an obituary. I hope we have caught something of their personalities and registered the importance of Team Ten in discovering and defining problems wrought by the modernist revolution, even if they did not always manage to provide adequate solutions. The chapter on the Leicester Engineering building gave me an excuse to renew contact with James Gowan, my former teacher at the Architectural Association, and it was a pleasure to encounter once again his acerbic wit and analytical understanding. Günter Behnisch was always generous with time and support, but primary contact with his office came via Christian Kandzia, who provided copious material and allowed free use of his Munich photographs. Helmut Striffler was equally generous and cooperative over the material for the Dachau chapter, and made the connections with his photographer Robert Häusser. Lucien Kroll, long a personal friend, has provided material and commentary. I should also thank Giorgio Marini of the Castelvecchio Museum Verona, the RIBA Picture Library, the Amsterdam City Archive, Lenita Gärde of the Swedish Museum of Architecture, Studio De Carlo, Martin Charles, Arkitektenbureau van Eyck, Karljosef Schattner, Venturi and Scott Brown, the Eiermann Archive in Karlsruhe, Peter Bareham, and the Diözesanbauamt Eichstätt. The book could not have happened without the help of the University of Sheffield, and I thank my fellow professors Jeremy Till and Roger Plank for permitting me the time to do it. David Wild has once again made a special collage for the cover which perfectly expresses our blend of respect and good-humoured scepticism.

Peter Blundell Jones

My contributions to this book originated in the opportunity offered in 1991 by Professor Roger Stonehouse to teach a course in twentieth century architectural history to third year undergraduates at Manchester University School of Architecture. The period covered in that course began in 1917 and included the pioneering works of modern architecture, but the emphasis was on the consequences of those early examples for more recent work, both in terms of the widespread application of modern movement principles as a new tradition, and in reaction to their negative effects, a duality which is also the broad theme of this book. The case studies selected, originally organised as a set of comparative lectures, were intended to help students in understanding the contemporary context of architectural design choices, and that continues to be the aim. In preparing that material I was supported by two eminent architectural historians, John H.G. Archer and Frank Salmon, who provided inspiration for this enthusiast's foray into their professional territory. Following my appointment at Sheffield University the material was extended and developed in courses there, and I would like to pay particular tribute to the hundreds of students at both universities who studied the buildings concerned through the construction of critical models. The results of their hard work were very revealing to me, and in supporting that time consuming but worthwhile endeavour I am indebted to the forbearance of Satwinder Samra, and also to Peter Lathey for his photographic record of the models. Both of us are deeply indebted to him also for scanning and processing of photographic material.

Eamonn Canniffe

Introduction

This book is a sequel to Peter Blundell Jones's *Modern Architecture Through Case Studies*.¹ That book was inspired by two things: first the value of the architectural Case Study in allowing some depth and getting closer to the architectural work; second the conviction that 'modernism' as a campaign to join or as a straw man to hate could no longer be considered a unified 'project'. The author's own experience as unraveller of an 'alternative' or organic tradition prepared the way for this,² but the idea broadened when it became apparent that the Weissenhofsiedlung, supposed birthplace of modernism, and the subject of the first chapter in that volume, could reasonably be construed as sixteen different architectures, some departing in totally opposed directions. The experiment of the book soon proved that the four thousand word essay was adequate to describe a building and set it against its ideological background, and that it was possible to fit about eighteen of these into a normal sized monograph. The rule was quickly made not to allow more than one chapter per architect, correcting the usual bias towards a mere handful of heroes and giving hitherto lesser figures an equal voice. The choice of works and the decision to run them chronologically produced an unfolding narrative which moved sometimes in unexpected directions, yielding fruitful contrasts.

Once the book was published, reviewers debated the selection, but they also suggested that the process could go further. An obvious next stage was to deal with the post-war generation of architects, to explore the developing modernism of the 1950s and 1960s followed by the postmodern reaction of the 1970s and 1980s. Eamonn Canniffe and I, having developed material independently as colleagues teaching some of the same courses at Sheffield, decided to share the chapters and to develop the book together as a dialogue. At first we made lists of architects under headings such as 'Team Ten', 'technological optimism' and 'patterns of context', but this seemed forced, for several broke the bounds of their categories and the overall chronology made little sense. Returning to a strict chronological sequence highlighted the co-

existence of opposed tendencies and pulled a new thread through the period, again with unexpected results. The essays are signed to make it clear who is the primary author in each case, for we hold different ideological positions, would not have included the same examples if working alone, and do not always agree in our judgements, but we have in the process of writing and laying out the book criticised, and in places contributed to, each other's chapters.

The first three chapters, concerning buildings conceived in the 1940s and 1950s, belong to high modernism, the period when the Modern Movement as conceived in the late 1920s became the dominant architectural ideology worldwide. It was driven by the new technical and constructive possibilities, the notion that form should follow function, and the abstract compositional language of modern painting. The earliest work considered, the **Eames House** of 1945-49 built while Europe was still on its knees, does not escape the after-effect of war production in the United States. Made of industrially produced components, it pioneered the view of architecture as a standard but flexible kit of parts, gaining its form from the discipline of assembly, while its contents celebrated the arrival of the consumer society which the exclusivity of pre-war modernism had failed to achieve.

In the absence of the great master Ludwig Mies van der Rohe, who had gone to the United States, Egon Eiermann became the most important German architect in the Miesian direction of the 1950s and 1960s, and his **German Pavilion at the Brussels Exhibition** designed with Sep Ruf in 1957-58 shows this tendency at its ideal extreme. The neat geometric discipline of square on square allied the perfectly detailed rationality of steel construction to prevalent beliefs in the aesthetics of pure geometrical composition. Clever layering of steel and glass exaggerated the buildings' lightness and transparency to evoke a feeling of freedom and generosity, and they were set off object-like against the green background of the park. As with the Eames House, such self-contained perfection surrounded by a *cordon sanitaire* of open space

was the architectural ideal of the time, reflecting the widespread choice to start afresh in a new and modern manner on the outskirts of towns, working tidily and entirely within one's own terms. Eiermann and Ruf's Pavilion also lent itself exceptionally well to reproduction in black and white photographs, the record through which we are obliged to view the demolished Pavilion today.

Along with both previous examples, Aldo van Eyck's **Orphanage in Amsterdam** of 1954-59 reflects the assumption that the future of construction lay in mass production, for he designed it on a square grid with precast concrete components and small concrete domes. The choice of a rather small, low basic cell reflected the scale of the child, however, and van Eyck assembled the cells in groups to articulate the territories of the different 'families'. This social articulation, along with the making of courtyards as outdoor rooms and a great sensitivity about thresholds, reflected a new interest in anthropology which van Eyck brought to architectural discourse. He spread his ideas through Team Ten, the international group which grew out of the famous CIAM (International Congresses of Modern Architecture), and which produced some of the earliest and most penetrating critiques of the post-war modernist orthodoxy.³ It was van Eyck who contested the very title of modernism's bible, Sigfried Giedion's *Space Time and Architecture* with the remark: *'Whatever time and space mean, place and occasion mean more.'*⁴ Like other Team Ten members, he cared about the city and the integration of new buildings within it, but typically for its time, the orphanage was built in glorious isolation on the outskirts of Amsterdam, becoming a city in itself. This recalls another of van Eyck's dicta, derived from Leon Battista Alberti's Ninth Book:⁵ *'A big house is a small city and a small city is a big house.'*⁶

During the 1950s and early 1960s, architecture was dominated by the Utopian and utilitarian idea that technical and economic circumstances would force submission to the discipline of mass production, therefore to rectilinearity, modules and repetitive components. This notion was so strong that the alternative view represented by the organic tradition hardly received any attention. The work of Hans Scharoun for example (Blundell Jones 2002 Ch. 13), which was widely seen as antithetical to that of Eiermann, was often condemned as anachronistic and 'personal', despite the functional logic of its social articulation, and despite the fact

that it could be built for competitive prices.⁷ But one kind of job had to break with the module and accept such irregularity: integration into an old setting. At a time when the hearts were being torn out of cities across Europe, Gottfried Böhm's **Bensberg Town Hall** of 1962-71 was an astonishing exception. Instead of building anew on the outskirts, the town decided to rescue the remains of its old castle which had almost disappeared, re-marking the centre. Böhm won the competition with a design skilfully mixing new and old, even daring to add a useless new tower to express the entrance and to balance a skyline of towers. This was a work about the importance of place and memory, of preserving streets and squares, of accepting the layering of history.

These issues were also being discussed by Team Ten, and it is the chief distinction of the Smithsons' most famous work, the **Economist Building** of 1960-64, to have redefined the nature of its urban setting. Due to the replication of its motifs in less talented hands, the shift in consciousness that this represented is now hard to see, but in a world where architects conceived buildings as free-standing objects, and clients sought to realise the rentable value of the last centimetre of a site, it was an extraordinary idea to create a public space and to extend the pedestrian network in a more enclosed manner than the standard Miesian plaza adjacent to an office tower, a building type that was actively destroying traditional urban space.⁸ It would have been yet more revolutionary had it been extended across the city as the Smithsons intended. The built volume was articulated into three blocks of varying size and presence, using the same vocabulary in a kind of theme and variations, but managing the changes of scale and level most artfully.

The Smithsons had opened their career with a work in homage to Mies, and the treatment of the Economist towers again reflected their debt to this master, but they were also much beholden to Le Corbusier, who as Peter Smithson once remarked: *'seemed to have had all one's best ideas already.'*⁹ The influence of these two great masters was so dominant in post-war British architecture that it came as a complete shock when two young architects turned to completely different sources. With **Leicester University Engineering Building** of 1959-64, James Stirling and James Gowan mixed ideas from Russian Constructivism and Dutch De Stijl with lessons from our nineteenth-century industrial inheritance of warehouses, factories and kilns. They also revived an aspect

of early functionalism by aggressively articulating the programme, and invented a new vocabulary of red brick and patent glazing. Site and orientation provoked a break away from the right angle to 45°, most memorably in the northlight roof that was set diagonally, and the whole building lent itself to presentation through axonometric projection, almost suggesting a kind of abstract and anti-gravitational thinking. It was the most original British work since the war and laid the foundation for Stirling's international career. His Staatsgalerie, Stuttgart, of 1981-84, designed in partnership with Michael Wilford, was so important an example of postmodernism and so influential that but for our rule of one building per architect, it would have deserved a chapter to itself. To bring it into the discussion it is included as a postscript to the Leicester chapter.

There was more readiness in Germany to plan buildings in an irregular manner because of the continuing presence of the organic tradition, not only in Scharoun and Häring but also in Böhm as seen above, and in many more, but one building of the 1960s presented the extreme case of avoiding the right angle in plan. Helmut Striffler won the competition for the **Protestant Memorial Chapel at Dachau** concentration camp (1964-67) with a design intended to negate the merciless axial order of the camp. Poetically, it provided 'a protective furrow' for the outcast, a place of refuge from the surrounding horrors. The question of memory was at its most acute and painful, and had already produced twenty years of difficult debate. With his downward entrance and bleak concrete structure, Striffler struck just the right note, showing that architecture had lost none of its memorial power.

As the chapel was being built, Germany was preparing to play host to the world at the 1972 **Munich Olympics**, and needed to display the redeemed character of the Federal Republic as opposed to the pomp of the Third Reich seen at the Berlin Olympics in 1936. The competition of 1968 proposed an 'Olympics in the green' built at the edge of Munich, and established a firm that was to lead German architecture in the 1980s and 1990s: Günter Behnisch and Partners. They proposed an enormous artificial landscape which would absorb the great stadia in the sides of hills like unrhetorical classical amphitheatres. For the stadia that needed roofs they proposed hanging cable nets at unprecedented dimensions, built with the help of lightweight structures pioneer Frei Otto. This

extraordinary free-form project marked a radical change in direction for Behnisch. In the early 1960s his firm had been at the forefront with prefabricated concrete, disciplined, repetitive and rectangular, but after 1965 they reacted strongly in the opposite direction, advocating a *Situationsarchitektur* that attended to place and circumstance. They went on to produce work of increasing complexity and irregularity, and Behnisch became the principal German inheritor of the organic tradition.

In contrast with this great task pushing technology to the limits, a small Italian job equally significant for world architecture was quietly developing in a piecemeal fashion. Carlo Scarpa had started his reinterpretation of the **Castelvecchio in Verona** in 1958, but it was not substantially finished until 1974, two years after the German Olympics. Scarpa's buildings were modest in scale and he was famous for his mastery of detail, which turned attention back to craftsmanship, trying to reinterpret it for the machine age. But his greatest contribution was in the question of new and old, of entering a dialogue with a historic setting. In this he shared interests with Gottfried Böhm (mentioned above) and Giancarlo De Carlo (to be discussed below), but he worked more delicately. The old castle at Verona was converted into a museum, and Scarpa designed the setting for each work, the reinterpretation of each window, every transition of the floor and ceiling. The new parts are finely wrought and reinterpret the way that paintings or sculptures are framed, but the old parts are exposed and edited, thrown into sharp relief through surgical demolition.

In his intense concentration on what might be called chamber works, Scarpa was rather apolitical, while Lucien Kroll is by contrast the most politically engaged of architects. His **Maison Médicale** and residences at the University of Louvain, outside Brussels, of 1969-74, were a direct outcome of the student revolts of 1968. Beginning his career within the fold of conventional modernism, Kroll had become increasingly critical of the kind of architecture that had arisen for mass housing, driven entirely by production processes and relentlessly repetitive. Lining people up in identical houses was like forcing them to wear uniform: they had become standardised human beings devoid of individuality. The way out of this was to allow them to participate in the formation of their own dwellings, replacing enforced uniformity with a natural diversity. The university had built a brutal

new hospital and was about to apply the same techniques to its student residences when the students rebelled. A compromise was reached by hiring Kroll as architect, introduced by the students because of his interest in participation. Taking into account their needs and wishes, he made a radical experiment in self-generating architecture whose anarchic image flashed across the world. Its lasting significance lay in the way it shifted attention from the finished architectural object to the process, thereby challenging the architect's aesthetic rights.

Ralph Erskine was another pioneer of participation and a member of Team Ten. Born and trained in England, he went to live in Sweden at the end of the 1930s where he stayed, imbibing the subtle organic work of masters like Gunnar Asplund and Alvar Aalto, and designing housing for the Swedish welfare state. By the beginning of the 1970s he had become one of the leading architects in Sweden, and was beginning to get jobs in Britain. **Byker Housing in Newcastle 1970-74** (first phase) was a special case because the old slum possessed a legendary community spirit which the council wanted to preserve during rebuilding. Erskine went out of his way to consult the inhabitants. In an old shop on site he set up an office where local people could drop in to consult the architects, demolition was delayed to allow people to move from old to new in groups, and neighbourly relations were preserved. Shops and community facilities were included, and much of the housing took the form of terraces with back yards, but the development became famous for the Byker Wall, a linear block originally intended to screen off an intended motorway, but also effective as a climatic barrier – a major Erskine interest. By exploiting the landscape and developing simple house types through seemingly endless variations, Erskine created a homely environment that has survived despite a collapse of faith in social housing in Britain. In thirty years the community has changed, but the community spirit which he strove to protect lives on.

There could hardly be a greater contrast between the socialist Erskine and the technocrat Norman Foster, or between social housing and a wealthy company pursuing its image in a new headquarters, but both came to fruition in England at the same time. **Willis Faber & Dumas 1971-75** was an insurance company moving out of London to Ipswich. They managed to buy a whole irregular urban block for their new offices, and included a

swimming pool on the ground floor and a canteen on the roof. The deep open plan, regular column grid and sophisticated flexible servicing system were typical of the kind of minimal post-Miesian architecture that Foster pursued as a matter of course, developing and perfecting his system of components. But rather than building square and leaving the fringes of the site vacant as most Miesians would have done, he decided to fill the site to its very edge and accept the curving perimeter. In dealing with the variety of conditions met in creating a continuous glass skin, he initiated frameless glazing, which has since become commonplace. Foster's main innovations have all been of this kind, involving insight into the way technical developments can engender dramatic changes in architectural concept.

If by this date even the technologically radical Foster was registering the need for a building to engage with its site, Team Ten's complaints about the destructive effects of modern building on the traditional city and the divisiveness of zoning were beginning to hit home. The leading figure in this revision, for whom the compulsory 'reading of the territory' became a watchword, was the Italian Giancarlo De Carlo. In the 1950s he had been commissioned to develop a master-plan for the ailing Renaissance town of Urbino, and to plan for the building of a new university there. He added new colleges on the outskirts of the town but decided to place faculties within the old fabric. His **Magistero** (Faculty of Education) of 1968-76 was built within the walls of an old convent, completely reinterpreting the enclosed space with the addition of a circular court and a great divisible amphitheatre. Conceived when most architects' perception was geared to the building as a sculptural whole, this inside-out scheme was a complete surprise, as was its dependency on establishing a dialogue between old and new.

The founding project of Renzo Piano and Richard Rogers, **Centre Pompidou** in Paris of 1969-77, could hardly have been more different. This cultural centre pushed to an extreme the idea of architecture as a kit of parts, making no concessions whatever to the memories of the site or to the nature of its contents. It could hardly respond directly to them, because the guiding idea was the most dramatic kind of flexibility and convertibility, allowing for cultural phenomena to grow and change. In practice, though, the institution has been relatively static, and the range

of flexibility proposed did not anticipate the changes that needed to be made. Rather than celebrating process and change as intended, the building ended up monumentalising its own structure and services, but it achieved social success for the street life of its attendant urban square and the escalator view of the roofs of Paris.

Piano and Rogers, Giancarlo de Carlo and Aldo Rossi all had much to say about the nature of cities, as 'the urban' became a dominant topic of discussion among architects in the late 1960s and early 1970s, but while Pompidou celebrated the liberating effects of new technologies, De Carlo and Rossi were more concerned with dealing with the past, with urban memory. While De Carlo developed his ideas and methods empirically in the specific context of Urbino, Rossi, architect of the **New Cemetery of San Cataldo, Modena** 1971-1990, theorised more abstractly and generally towards a new rationalism, especially through his 1966 book *The Architecture of the City*. He noted the persistence of form in cities despite complete changes of purpose, and proposed a fundamental vocabulary of archetypes based on simple geometric solids. Because of its inherent monumentality and intended transcendence, this worked particularly well as an architecture of death, but Rossi's buildings and projects were more persuasive as images than in reality. His work was influential worldwide for about a decade, partly for a poetic sensibility that needed no explanation, partly for the popularity of traditional roofs and windows that he reintroduced without apparent anachronism.

Peter Eisenman, based in New York, represents another kind of postmodernism later redefined as deconstructivism. He began his career with a reaction against modernist functionalism, pursuing instead the notion that architecture is an abstract form language independent of use and construction. After making sophisticated 'readings' of early modernists, especially Terragni,¹⁰ he reapplied the formal system he had defined in small works of his own, mainly houses. The **Wexner Center**, Columbus, Ohio, of 1983-89 proved a breakthrough, not only because of its size and public purpose, but because the formal interaction was driven by elements found in the site, enriching the potential meaning of the building through local and contextual references. The supporting theory and footnotes are voluminous, which underlines Eisenman's role as a leading reflective practitioner

in US East-coast architectural discourse, and in the international exchange of architecture primarily experienced through print.

Also dedicated to the function of education, the intimate work of Karljosef Schattner shows quite another kind of contextualism, and at the opposite end of the scale. Employed for thirty years as Diocesan architect in the tiny German town of Eichstätt, he was a local architect engaged in small high-quality jobs, and his fame in Germany grew in the 1980s not through theory but through the sheer quality of built work. Starting as a rather fastidious modernist with a great sensitivity for materials, he came under the influence of Carlo Scarpa, and started to experiment with the same kind of contrasts and layerings. The **Waisenhaus** in Eichstätt rebuilt in 1985-88 is a historical curiosity. It started life as two Renaissance houses, was converted into an eighteenth-century orphanage behind a new facade, and after being narrowly saved from demolition by Schattner, was finally reconverted into two university departments. All three layers are exposed and contrasted in his conversion, resulting in a fascinating building which makes the passage of history almost tangible. At a time when too many old buildings are hastily swept away or converted out of all recognition, and when all cities are becoming alike, Schattner provides a rich example of how to preserve the urban and personal memories that constitute genius loci by sensitively combining new and old.

Some people would rather have no 'new' at all, and part of the conservative reaction to Modernism in Britain was a movement declaring itself *Real Architecture*, which in the 1980s produced a rash of shamelessly anachronistic work.¹¹ This tendency was encouraged by Prince Charles, whose foray into architecture began with a condemnation of the first proposal for extending the National Gallery in London, the **Sainsbury Wing** eventually built in 1986-91. A competition held in 1982, won by a relatively modernist scheme from Ahrends, Burton and Koralek, was about to go ahead when it was condemned by the Prince as '*a carbuncle on the face of a well-loved friend*'. The ensuing consternation led to a second international competition in 1986 with an evident anti-modern bias, in which a whole series of hitherto modernist architects tried to design a nineteenth-century building with a stone facade.¹² Robert Venturi and Denise Scott Brown won partly for their skilful response to the awkward site, but mainly because an ironic and stagey

treatment proved in the end the only convincing way of marrying the demanding modern conditions of use to galleries and facades that played with historical dress. Completed at the beginning of the 1990s, this building brought to a close the reactive period known as postmodernism, and it was fitting that the last word should be given to those who had provided the first in the 1960s, for Venturi had produced the ground-breaking book *Complexity and Contradiction in Architecture* (1966), that more than any other launched postmodernism, making explicit demands for a kind of mannerism in reaction to modernist premises. Together with Steven Izenour, Venturi and Scott Brown had also written *Learning from Las Vegas* (1972) which first legitimised kitsch in architectural debates.

Venturi and Scott Brown, together with the Smithsons and Eameses, fulfil one other change to the architectural profession during the period: the acknowledged presence of women as equals in creating buildings. Although all three were or are in professional partnerships with their husbands, the acknowledgement of their names and roles marks a steady transition from the first modernist generation, in which women were almost absent, to today's condition in which women can be solo architectural stars heading international practices.

PBJ/EC January 2007

Notes

1. Blundell Jones 2002.
2. Blundell Jones 1978, 1995, 1999.
3. The best general source on Team Ten including period documents is Risselada and van den Heuvel 2005.
4. '*The Medicine of Reciprocity*', first published in *Forum*, 1961, and much reproduced.
5. Alberti 1986 (original 1485).
6. Also in '*The Medicine of Reciprocity*', see note 4 above.
7. Scharoun's Romeo and Juliet housing project in Stuttgart of 1954-57 was a successful speculation sold to owner-occupiers and brought further commissions. His Berlin Philharmonie was completed in 1963 at the lowest cost per seat for comparable buildings in Europe at the time. See Blundell Jones 1995.
8. Mies's Seagram Building, New York 1957 was the trend-setting example.
9. Banham 1966, p. 86.
10. Starting in a thesis at Cambridge, finally published as Eisenman 2003.
11. *Real Architecture* was the title of an exhibition including work by John Simpson, Robert Adam, Demetri Porphyrios and Quinlan Terry held at the Building Centre, London, in 1988. The eponymous catalogue was edited by Alan Powers.
12. See '*Two views on Venturi*' by Peter Blundell Jones, *Architects' Journal*, 13 May 1987, pp. 22-26.

Chapter 1. Charles and Ray Eames: Eames House, Pacific Palisades, 1945-49

Following the defeat of Germany and Japan in 1945, the victorious liberal democracies looked to the United States for direction. Politically, American leadership affected the world through the power confrontation with the Soviet Union and the economic assistance provided by the Marshall Plan. Culturally, the presence of American troops augmented the influence already established through films and music, converting the economic power of the previously isolationist superpower into a tangible Utopia of opportunity. In architecture there was a willingness to dispense with traditional European historic styles for public projects because of their association with failed totalitarian regimes. The role of architects as transformers of the social scene was disseminated from academic centres by European exiles like Mies and Gropius, whose pioneering pre-war work was exposed to a larger audience.¹ Not only was the built environment transformed: the change also affected the public image of the architect. The partnership of Charles and Ray Eames departed from conventional practice by representing an alternative vision. Instead of the typical faceless male administrator, or the romantic figure of the lonely genius glamorously exemplified by Gary Cooper as Howard Roark in *The Fountainhead*,² the Eameses presented themselves as a married couple happily at play in their work. Typically portrayed in good humoured engagement with design, film work and exhibition creation, they seemed to dedicate their entire *oeuvre* to open communication, the explicit nature of the form providing a self-conscious context for the implicit nature of the content. Unlike their slightly younger British contemporaries the Smithsons (see Chapter 5), they did not appear to take themselves too seriously, but their products grew formally and technically from a painstaking development process which they were happy to share through constant documentation.³ Their image of sunny optimism epitomised the material comfort of Eisenhower's America, but beneath it lay the dark shadow of the couple's earlier experiences during the Great Depression, Roosevelt's New Deal, and the Second World War.

Charles Eames was born in 1907 in St Louis and began training there as an architect at Washington University, but did not complete the course. A European tour in 1929 exposed him directly to the work of early modernists. Architectural practice during the Depression era, when he and his partners completed a few conventional houses and a church, was followed by projects for the federal government through the Works Progress Administration.⁴ The church (St Mary's Catholic Church in Helena, Arkansas, 1936) came to the attention of Eliel Saarinen, who appointed him to a fellowship at Cranbrook Academy. There he encountered Ray Kaiser, born in Sacramento in 1912, a young artist studying crafts, and, following his divorce from his first wife, they were married in 1941. The couple moved immediately to Los Angeles, where Charles

1. Eames House: The multicoloured facade.





2. The world-famous Eames chair and ottoman designed for Herman Miller in 1956.

3. (opposite) Contemporary publication.

was employed by Metro-Goldwyn-Mayer as a set designer, while Ray worked on furniture designs from home, the pair living and working in Richard Neutra's Strathmore apartment building. America entered the Second World War at the end of that year, and Californian firms became involved in the war effort, taking the lead in aircraft production. The Eameses and their friend John Entenza set up a company which was commissioned by the US Navy to produce plywood splints for injured service personnel. This gave them privileged access to new technologies during a period of material shortages and encouraged them in their experiments with furniture design. A late and indirect product was the plywood shell of the lounge chair and ottoman, the so-called Eames chair of 1956. Plywood was strong, innovative, but eminently functional, and its inherent suitability for folded sheet forms presented new aesthetic possibilities which Ray was particularly adept at exploiting. This new material remained, along with fibreglass and aluminium, at the intersection of the Eameses' different design and material interests.⁵

The Case Study houses

As the war progressed, American and exiled creative minds turned to the world to come once peace was restored. Architects were concerned to create a new public language of representation, as exemplified by the new monumentality of Josep

Lluís Sert, Fernand Léger and Sigfried Giedion.⁶ There was also a keen concern to improve domestic conditions for returning service personnel and their families, which led to the Case Study Houses Program developed by the magazine *California Arts & Architecture* (later *Arts & Architecture*). Under the editorship of the Eameses' commercial partner John Entenza, this magazine identified the aesthetic of modernity with the political agenda of the Allied Powers, and intended to make a practical demonstration of how modern techniques might be applied to the looming housing question. In 1943 Entenza organised a competition *Designs for Post-War Living* which was published in the magazine the following year with a contribution by Charles Eames entitled 'What is a House?' In January 1945, with victory in sight, an answer to that question was sought with the Case Study Houses Program. *Arts & Architecture* announced that it would sponsor the acquisition of suitable sites for individual dwellings, designs by eight Southern Californian architects, and the subsequent construction, publishing the results to further the cultural and social aims of new ways of living.⁷

Commercial alliances with manufacturers, and exhibition of the houses prior to occupation (350,000 visits were recorded), placed this project somewhat ambiguously within the tradition of European modernist housing exhibitions like the Weissenhofsiedlung at Stuttgart of 1927 (Blundell Jones 2002, Ch. 1). However, unlike that precedent, which implied a transformed urban landscape, the Case Study houses were individual family dwellings rather than examples of collective prototypes. This fact alone indicates the adaptation of the broadly socialist modernist agenda to the more individualistic American society, obscuring some of its original ideological intentions. Although initially timber construction was expected, the development of steel frames allowed ever more dramatic proposals to be realised.

The architects involved included Craig Ellwood, A. Quincy Jones, Pierre Koenig and Rafael Soriano, but the Eames house stood out as the most influential. Charles Eames did in fact design two houses on adjacent sites at Pacific Palisades: Case Study House 8, known as the Eames House and attributed to Charles and Ray Eames; and House 9, built for the bachelor Entenza, which was attributed to Charles Eames and Eero Saarinen. Set in contrast by their proximity, the two houses demonstrated different attitudes and formal choices, the

LIFE IN A CHINESE KITE

Standard industrial products assembled in a spacious wonderland



Diagram by Eames shows flexibility of house; many ways of rearranging facade of patterns

The sparkling construction shown on these pages happens to be the place where one of America's foremost young designers and his wife are having the time of their lives. More important, it is also one of the most advanced house structures built in this country to date.

So far as Charles Eames is concerned, there is no reason why a house should not be:

- ▶ Spacious—space being the greatest luxury there is;
- ▶ A sophisticated industrial product;
- ▶ And as light and airy as a suspension bridge—as skeletal as an airplane fuselage.

Having got this straight in his own mind, Eames asked himself these questions: How cheap is space? How industrial is our building industry? How light is steel?

LOCATION: Santa Monica, Calif.
CHARLES EAMES, Designer*
LAMPSON, CARR, SALZMAN, INC., General Contractor



Tertiary living room (opposite) faces south-west; Eames-designed step-ladder at left is useful in opening projecting porch, climbing up to bedroom gallery in rear.

Porch at southwest end of building (left) is partly enclosed by 8 ft. retaining wall. Lattice is 200 ft. long, accounted for large chunk of building budget.

*Designed and built for the Case Study House program of the magazine *Art & Architecture*.
Photos pp. 90-99 (except top p. 91) John Johnson.



4. (left) Vogue model photographed in the house in 1954.

5. (above) Bridge-like early version of the house designed by Charles Eames and Eero Saarinen.

6. (opposite) Ground and first-floor plans of the Eames House, following the graphic conventions of the contemporary publication.

7. (below opposite) One of the original perspectives showing the kitchen and a feminine figure.

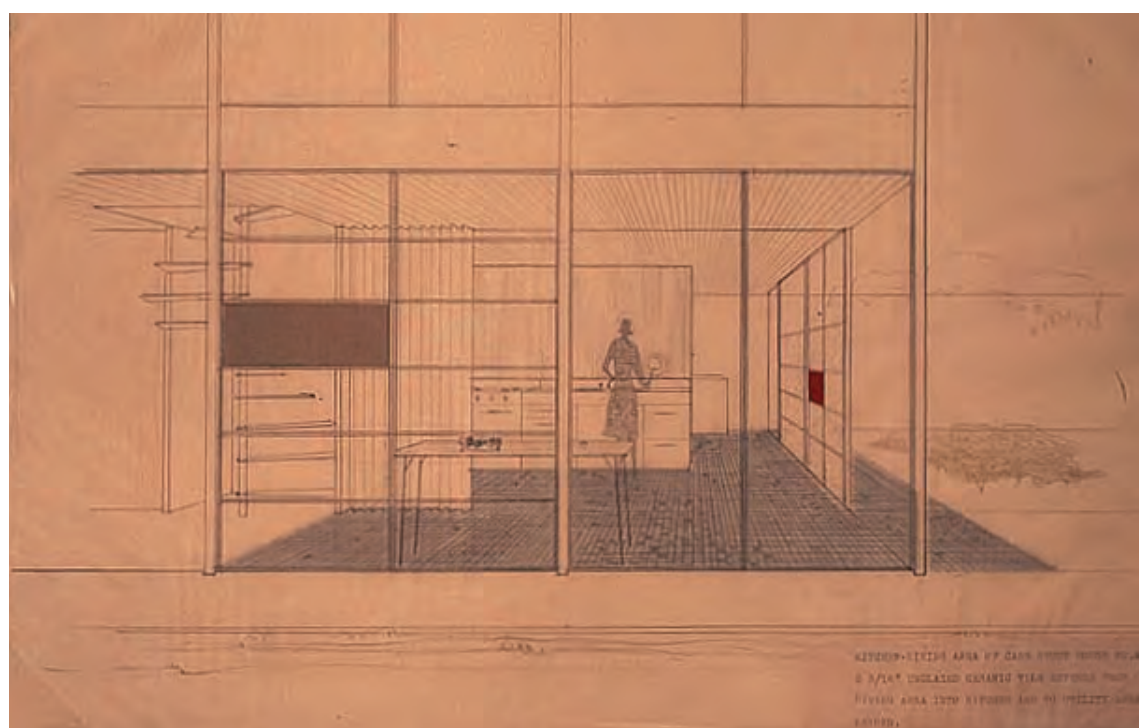
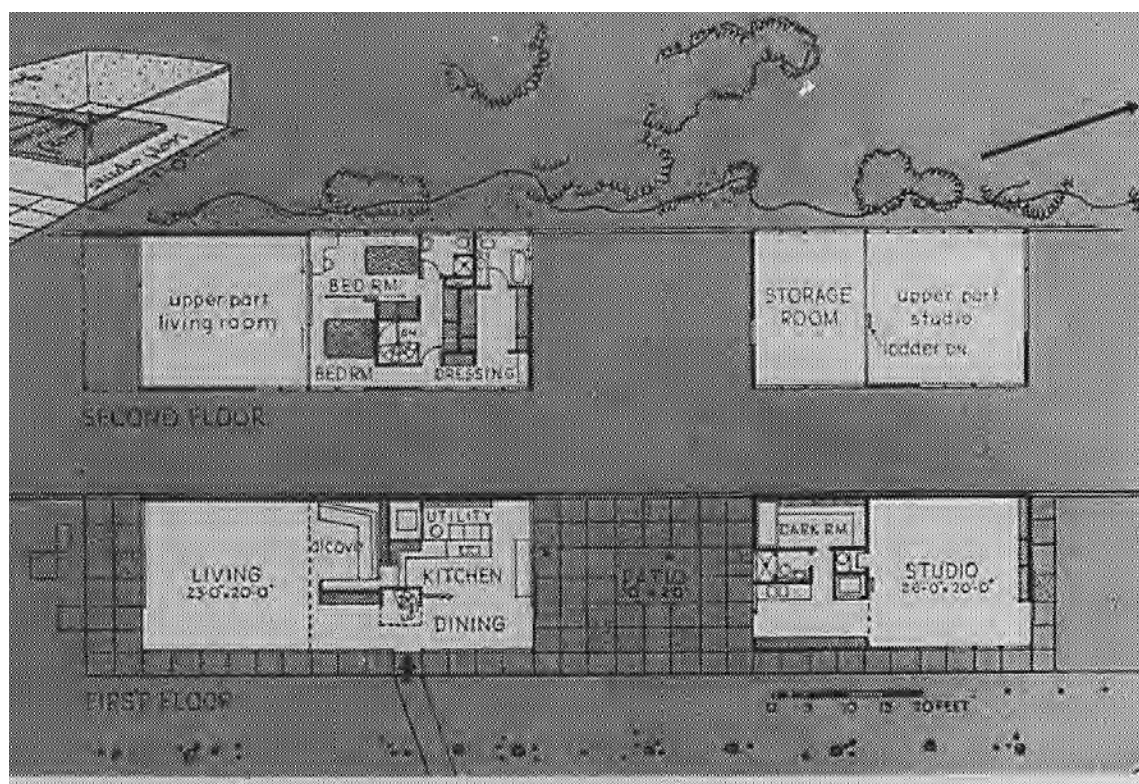
Eameses creating a family home and workplace as opposed to Entenza's individual retreat, an open framework contrasted with an enclosed shell. The Eameses' home proved the most enduring because of their long occupancy, and because of the house's use as a vehicle for their developing design ideas. The cooling of friendship between the Eameses and Entenza, the sale of his house in the mid-1950s, and subsequent alterations, left the field free for admirers of the work of the Eameses to devote undiluted attention to their dwelling.

The Eames aesthetic

In the history of domestic modernism the Eames house stands apart. Not since the work of Adolf Loos had there been such a direct separation between the visual and technical language of the exterior and that of the contents. But if the Viennese master presented this separation in the ironic terms of *fin-de-siècle* polemic, his Californian successors preferred a less confrontational and apparently more casual patois.⁸ As if in some frightful case of overcompensation, the spare frame of the exterior, where economy is definitely the key, conceals an interior world of magpie

acquisitiveness and eclecticism. The Eameses' passion for collecting, and for displaying their collection in different ways within their personal realm, did much to remove any harshness from the presentation of their architectural vision. But quite apart from the building's occupation by its architects, the mechanical logic of the exterior could not be allowed to dictate the interior for one very clear reason. The kind of interior presented by Ludwig Mies van der Rohe with the Farnsworth House (1946-50), essentially for the appreciation of the professional connoisseur, would have been too uncommercial. Such austerity might suit the office or showroom, but for the domestic market it was too uncomfortable except for a few wealthy intellectual aficionados.

Despite its later reputation as a model for casual but luxurious individual houses, the Eames House involved a design strategy that could almost be described as self-denial. The simplicity of the frame reflected Charles Eames's intention on grounds of economy to enclose the maximum volume within the least surface. The relation to the dramatic site was similarly reticent, simply standing the steel frame alongside the existing



natural meadow against a change in gradient. This contrasted with the modernist motif of integrating a house into the landscape, as forcefully expressed in American domestic architecture by Charles Eames's early architectural hero, Frank Lloyd Wright (Blundell Jones 2002, Ch. 12). Instead one is presented with what could be seen as a defining Eames motif, especially in their film and exhibition work: the laconic juxtaposition of two independent elements, which encourages the observer to make the connection. An early project for both houses, as published in *Arts & Architecture* in December 1945, juxtaposed the square of the Entenza House against an L-shaped version of the Eames House which had a separate studio. Its principal domestic volume cantilevered out over an existing meadow (fig. 5), set perpendicular to the existing embankment on the site. An entry driveway ran beneath the house, relating it to modernist villa prototypes like the Villa Savoye (Blundell Jones 2002, Ch. 7). The steel frame, which Eames designed in conjunction with structural engineer Edgardo Contini but rearranged after delivery to the site, demonstrated a significant concept in the ideology of the Case Study Houses Program. Mass production and rapid assembly had greatly improved during the Second World War, particularly in the construction of aircraft. In the new era of peace, the architectural community sought to revive the 'swords into ploughshares' strategy that had followed the First World War.⁹ There was again a desperate need for housing, but there was also a hope that industrialised building could re-employ those who had produced armaments. In Britain the Hertfordshire Schools programme followed the social agenda of Attlee's Labour government, its architectural modesty suiting the self-image of the declining imperial power.¹⁰ In the triumphant and expanding United States, the same attitude could be presented and appreciated in a more alluring light, with the concomitant problem that the image was mistaken for the substance.¹¹

The early project for House 8 in the form of a bridge bore an undeniable similarity to a sketch by Mies, whose work Charles Eames had observed at an exhibition at the Museum of Modern Art in New York, although according to Ray Eames this could not have been until November 1947.¹² A second project moved away from Miesian precedent by rotating the volume of the living space through 90° in relation to the separate studio, so that it was parallel to the fall on the site, replacing the intended cantilever with a single storey retaining wall. The

prefabricated parts, 4 inch (100 mm) H columns and 12 inch (300 mm) deep open-web trusses were then rearranged on the site to make the new configuration, as published in *Arts & Architecture* in May 1949.

The physical and aesthetic motif of the frame, sometimes compared with a box kite,¹³ controls the separate volumes of the house, studio and the patio between them. The ensemble was now modestly placed against the embankment, sitting on a concrete retaining wall on one side, and screened on the other by a row of eucalyptus trees, which obscured the house's impact. The patio was intended to be the focus of the most densely occupied parts of the solid volumes. The kitchen/dining room and bath/bedrooms in the house volume, and service areas such as storage and darkroom in the studio volume, were stacked next to it, while the double height volumes for living and studio were placed at the extremities. This produced an alternating rhythm of open and closed spaces, the central one open to sky and landscape. The alternation of spaces continued with the positioning of the main entrance between dining and living areas, directly opposite the open spiral stair to the bedrooms. The south-facing end bay was left open, the roof decking extended to provide a sheltered terrace with views of the ocean.

A primary module of 7 feet 6 inches (2.28 metres) controlled the length of the whole ensemble: eight bays for the house including the open end one, five for the studio, and four for the patio. Crosswise, the square drawn paving at half module and tripartite division of the end glazing suggest three bays of the same module, but closer inspection reveals two bays of 7 feet 6 and a narrower one of around 6 feet 3 for the doors, adding up to a whole width around 20 feet, marked on some drawings as 20 feet 4: it is not altogether clear how they dealt with thicknesses. The overall length of the house was recorded as 51 feet and of the studio as 37 feet, and both were 17 feet high. Accepting a width of 20 feet, number combinations suggest that a subtle proportional matrix underscored the matter-of-fact economic industrial construction (e.g. $51=17 \times 3$, and $37=20 + 17$).¹⁴

The frame was bolted directly onto the concrete slab, although each volume was distinguished by a different floor surface: a tiled floor in the living-room, brick pavements in the patio, and parquet in the studio. The back wall of the double height living-room facing the embankment was timber-panelled,



8. Studio with simple steel structure, minimal staircase and Eames-designed furniture.

with a seating area located under the bedroom balcony. Privacy for sleeping was supplied by sliding screens fitted onto the solid surface of the balcony front, which keyed into the module of glazed and opaque panels in the principal facade. The sense of open and closed volumes is

enhanced by a contrast of transparent and opaque panels in the elevations. The glazed areas, sometimes with large sheets of glass but mostly divided horizontally in six panels on each level, create dematerialising reflections externally, and frame views of the landscape internally. Such visual



9. View of the house from across the meadow with the line of eucalyptus trees in front.

10. (opposite) House and studio facades with Mondrian-like composition.

effects develop the contrast between the house and its setting in a modest and subtle manner, without the need for major external works. Some aesthetic indebtedness to the sliding screens of the Japanese house has been suggested, reflecting a long history of relations between the United States and Japan which bore obvious fruit in the work of Frank Lloyd Wright and Greene and Greene.¹⁵ However, this connection was hardly likely to be trumpeted in a proposal for ex-servicemen returning after a bitterly fought war in the Pacific, and after wartime internment of Japanese Americans. The architects were reticent, preferring a non-controversial non-nonsense emphasis on economy of means. The 'Japanese' effect was particularly evident in black and white photographs of the house, but in actuality colour was preferred, especially with solid panels painted in strong primary colours. This aspect brought quite different associations with European modernism of the previous two or three decades, especially Dutch De Stijl. Ray Eames had met Piet Mondrian while part of the American Abstract Artists movement in New York before her marriage, and some similarity with his paintings can be recognised in the house's juxtapositions of frame and colour, but the spatial attitude is different. As demonstrated in Rietveld's Red-Blue Chair and Schröder House, a dynamic attitude to previously closed forms was central to De Stijl. In contrast, a degree of stasis characterised the Eames aesthetic, dominated by

the rigid nature of the frame and the permanence of the coloured panels. Although there had been an intention to change them from time to time, the original colour scheme was maintained intact. Changefulness was achieved instead through daily and seasonal rhythms.

Unlike some of the later Case Study houses, the spatial experience of the interior was not one of expansiveness. The openness of the double height space encouraged instead a sense of visual and material complexity, as the space and its surfaces were filled from the start with an eclectic range of artefacts and furniture, a decision at odds with the designed uniformity of earlier modernist houses. Nor was the austere high-mindedness of the European avant-garde reflected in the ludic promotion of the Eames House to its commercial audience. Besides publishing the house in *Architectural Forum* in September 1950 under the headline 'Life in a Chinese Kite', the Eameses reproduced the house's language of frame and panel in storage units which they designed for the Hermann Miller company between 1950 and 1952, enabling any home owner to share in the Eames experience at an affordable rate. The house also featured as the backdrop of a fashion shoot for *Vogue* in April 1954, and in 1951 the Eames Studio produced 'The Toy', a set of brightly coloured triangular panels which could be assembled to create tetrahedral structures and children's play spaces. A smaller version was





11. End of the house, which sits on a retaining wall to left.

12. (opposite) The architects taking pride in the frame of their burgeoning house.

produced in 1952. In 1959, small-scale reproductions of the Eames House were sold as the Revell Company's Toy House at three-quarter inch to the foot scale (1:16), furnished with model Eames furniture.

Experience of the house as built was communicated to a wider public unable to visit it through the film *House: After Five Years of Living*, a ten-minute short consisting of still images of house and contents in saturated colour. This was the classic format of the Eames films, akin to a controlled slideshow (in this instance with a score by the film composer Elmer Bernstein) which allowed concentration on the abstract compositional values of light and shade, colour, modern machined elements and folk art. This formal method underscored the importance of the house's frame in organising disparate elements into a coherent whole.

An apolitical stance?

The Eameses claimed, like other modernist protagonists, to have preserved a professional detachment from politics, and that the personal genius demonstrated in their films at the American National Exhibition in Moscow of 1959, for example, was without 'official' approval.¹⁶ This suggests the naivety of the closeted designer pursuing a personal vision irrespective of what might be inferred by others. The same supposed detachment accompanied the critical reception of abstract expressionism, which was portrayed both as quintessentially American and as apolitical: as evidence of individual genius which American society prized. But despite its apparent self-sufficiency, the Eames House cannot be removed from its political context. Conceived as a prototype for a new way of dwelling, it became instead, through propagation of its image, a subtle tool of the Cold War period. The laudatory nature of the Eameses' benign view of Americana led from a



contract with the military during the Second World War through government commissions like the film and exhibition work in Moscow of 1959 (the scene of the 'kitchen debate' between Nikita Khrushchev and Richard Nixon) to the official commission for the American Bicentennial exhibition in 1976. Following their deaths, their archive was deposited with the Library of Congress. Their vision of America, with its seamless interaction between the corporate and the personal, became a signal of the good life. Its popular acceptance as the epitome of domesticity was an achievement to which European modernists had only aspired.

The self-referential nature of the Eameses' work, the documentation of the process of creation shown as a playful activity, the juxtaposition of the technologically complex with the disarmingly simple, lent a charming face to modern design as a relief from architectural high seriousness. Here was a cheering individuality, a can-do modernism, in contrast with the increasingly bureaucratised

state modernism promoted in Europe, its monotone homogeneity emerging from a ruined urban landscape.

The unsatisfactory nature of the present and the baggage of the past could be jettisoned in favour of the promised Californian future. The Eameses' vision chimed with the spread of American popular culture through film, music and eventually television, and their own films and colour-saturated palette provided some of the period's definitive images. What could never satisfactorily be squared was the lack of applicability of the Eames model to a wider community, one unable to share their exquisite taste or visual skills. The Eameses declared that the frame of their house had effectively disappeared, but repeated at larger scale by other designers that frame asserted a new architectural dominance in coming decades, becoming a necessary armature for proposals by high-tech architects, like Renzo Piano and Richard Rogers' Centre Pompidou (Chapter 14).

As a late expression of New Deal optimism, that tonic for the Great Depression promised by the Roosevelt Administration between 1933 and 1941, the Eames House presented an image of how industrial technologies could be applied to housing, but the political context determined its fate. In contrast with Europe, the economic system of the United States required ideas to be adopted by the market to reach beyond the lifestyles of the elite. Mass production and fast erection techniques came to dominate the American housing market, but in the form of timber framing and aluminium siding, with an aesthetic based firmly on traditional models. The Eameses' radical furniture was both commercially successful and appealed to the artistic avant-garde, but the market for their architecture was much more limited, with only two projects seriously attempted, and only one realised. The Hermann Miller Showroom, constructed at the same time as the Case Study Houses, was a more widely accessible demonstration of the Eameses' talents and tied their furniture production to the company. But the failure to build the house designed for the film director Billy Wilder, as an extension of ideas expressed in their own house, marked the end of this branch of their work.

It took appreciation of the house by other architects to nurture the spread of its ideas, especially high-tech architects. In their projects the concept of frame as neutral support for changing functions developed beyond the domestic scale to become the *parti* for a large public institution. But the Eames House also produced its own progeny within the domestic sphere. For example, the house of architects Michael and Patty Hopkins in London, completed in 1984, adapted the prototype to a gloomier climate, retaining the principles of exposed frame and simplicity of form. Sleeker in its finish than the original, thanks largely to developments in glass technology, the Hopkins House owes much to the Eameses' feeling for space if not to their passion for clutter.¹⁷ In both cases an apparent modesty, and the owners' apparent comfort, conceals radical ideas about living essential to the decades when they were conceived. Quite apart from any increased convenience, they represented a radical alternative to the historicist aesthetic which still dominates the Anglo-American suburban housing market today.

The enduring legacy of the Eameses lay not just in the house but in the way they presented it. The milieu they developed for themselves combined the

technical specification of industrial production with the craft values and simplicity of folk art. The organic forms of their furniture resulted from an inventive approach to the use of new materials. The rigorous matching of colours through pursuing modernist colour theory produced a collage of fragments from many sources, with an apparent randomness which belied the orthodox modernist starting point. The ambiguous appeal of this combination laid the foundation for the Eameses' success as designers of a particular lifestyle.

EC

Notes

1. This phenomenon revolved around three main centres: Cambridge, Massachusetts, Chicago and New York. Walter Gropius arrived at Harvard as Chairman of the Architecture Department in 1937 following a brief sojourn in Britain, remaining influential in that school until his death, and as late as the early 1980s the Graduate School of Design observed his birthday. Marcel Breuer joined him there, and Gropius's direct influence was supplemented by the appointment of Josep Lluís Sert, a Catalan exile from Franco's Spain, as Dean in 1953. Ludwig Mies van der Rohe's influence was exerted from Chicago. In 1938 the Museum of Modern Art in New York exhibited the work of the Bauhaus between 1919 and 1928.
2. The 1948 film was adapted from Ayn Rand's eponymous novel of 1943. See Colin McArthur, *'Chinese Boxes and Russian Dolls: tracking the elusive cinematic city'* in Clarke 1997, pp.19-45. For examples of the representation of the faceless administrator see John R. Gold and Stephen V. Ward, *'Of Plans and Planners: documentary film and the challenge of the urban future, 1935-52'* in the same collection pp. 59-82.
3. The most thorough collection is that assembled in Neuhart, Neuhart and Eames 1989.
4. See Kirkham 1998.
5. See Joseph Giovannini *'The Office of Charles Eames and Ray Kaiser'* in Albrecht 1997, pp. 44-77.
6. Josep Sert, Fernand Léger, and Sigfried Giedion, (1943) *'Nine Points on Monumentality'* in Costa and Hartray 1997, pp. 14-17.
7. See Kirkham 1998, p. 103, also Smith 1998.
8. In particular see the chapter *'Interior'* in Colomina 1994, pp. 233-281.
9. With the exile of many of its leaders, the political significance of the integrated model of Bauhaus design had been apparent before the Second World War. See Alexander Dörner *'The Background of the Bauhaus'* in Bayer L, Gropius and Gropius 1938, pp. 9-13.
10. See Saint 1987.
11. See Beatriz Colomina *'Introduction'* in Colomina, Brennan and Kim 2004, pp. 10-21.
12. Neuhart, Neuhart and Eames 1989 p. 107.
13. Tamar Zinguer *'Toy'* in Colomina, Brennan and Kim 2004, pp. 143-167.
14. Proportion was a contemporary theme best exemplified by Le Corbusier's *Le Modulor*, but also present in the work of Mies van der Rohe.
15. See among others Blundell Jones 2002, p.178.
16. See Helene Lipstadt, *"Natural Overlap" Charles and Ray Eames and the Federal Government'* in Albrecht 1997, pp. 150-177.
17. Davies 1993, pp. 11-12.

Chapter 2. Egon Eiermann and Sep Ruf; German Pavilion at Brussels World Expo, 1958

Egon Eiermann is not well known in the English-speaking world and has not been given much space in our histories.¹ Nonetheless, for German historians writing in the 1960s and 1970s he was one of the leading figures of the post-war scene. In an interview of 1977, Günter Behnisch referred to him as ‘a very good architect... *THE German architect of the last twenty years*’.² Critic and historian Wolfgang Pehnt consistently saw him as the opposite number to Hans Scharoun, claiming as early as 1963:

*In this middle generation, which was young in the twenties and occupies chairs at the colleges and academies, Egon Eiermann and Hans Scharoun represent extreme positions: Eiermann who is concerned with the lucidity and perspicuous arrangement of the formal image and with elegance of design; Scharoun who works on each assignment as though the planning problem that it exemplifies had never occurred before.*³

Normally the architect cited in this opposition – as in Blundell Jones 2002 – is Ludwig Mies van der Rohe,⁴ and Eiermann certainly has much in common with the better known Mies, including his reductionism, perfectionism, and obsession with detail. Caught in the shadow of this greater master, Eiermann has received less international attention than he deserved,⁵ but he was certainly no Mies clone, and he introduced major innovations of his own. Even so, he was close enough in spirit to Mies to suffer the same scorn when the Miesians fell from grace, when the promise of elegant simplicity that they pursued with such rigour and commitment was revealed to leave so many things wanting. To treat Eiermann merely as a lesser Mies is also to deny that, born eighteen years later, he belonged to a later generation, and that his mature work arose not like Mies's in the Weimar Republic before Hitler, but in the recovery period of the German Federal Republic following Hitler's downfall. Beginning in the *Stunde null* (zero hour) of bombed ruins in 1945, it came to symbolise the German *Wirtschaftswunder* (economic miracle) of the 1960s.

Egon Eiermann was born in 1904 near Berlin, the son of a railway engineer from whom he claimed to have inherited his precision in thinking and design.⁶ He studied architecture under Hans Poelzig at the Technische Hochschule in Berlin, along with the historian Julius Posener, Walter Segal, and Helmut Hentrich among others.⁷ Although Poelzig is usually categorised as an expressionist, his work was varied, complex and builderly, and he was an extraordinarily wise and liberal teacher, encouraging each student to find his or her own way and hotly forbidding imitation of his own work.⁸ As Julius Posener described:

We learned from him to encounter each project afresh, as though we had never solved one before... We learned to doubt every presumption, every routine, every method that tends to take over. We learned to suspect forms established too early, and to clear from

1. German Pavilion at Brussels 1958, corner of one of the two-storey pavilions suspended above the carpet of lawn.



*our work those notorious short-circuits that one too easily excuses as artistic or creative.*⁹

Eiermann did not say much about having learned from Poelzig, and when asked about it remarked that *'a genius has no pupils'*, but Posener thought there had been a crucial influence, citing Eiermann's statement *'learning to build means learning to think'*.¹⁰ That Eiermann was active and articulate among the student group is shown by his organising a weekly discussion circle on architecture that continued until 1933.¹¹

Eiermann's first building was industrial, a type of job that would recur throughout his career, and which seemed to suit him doubly: positively in its demand for objective efficiency, and negatively in the lack of pressure for rhetoric – at least rhetoric of the kind that modernists wanted to avoid. It was a small extension for the Berlin electricity works, with a flat roof and horizontal emphasis. The construction of steel frame with brick infill in Prussian bond¹² was strongly expressed, precise and simple. From 1930 until 1936 Eiermann worked in partnership with Fritz Jaenecke, and they started off well by gaining places in two oversubscribed design competitions for small mass-produced houses, carefully planned, geometrically precise, and obedient to the discipline of construction.¹³ By 1933 they had built the single-storey Hesse house in a Berlin suburb which was praised by the editor of *Bauwelt*. He excused the flat-roof – by the time it had been built, the Nazis were in power – on the basis of economy. There followed a series of family houses with the compulsory pitched roofs and rectangular wings in exposed brickwork, which by concentrating on simple forms and directly expressed materials ran the gauntlet of Nazi building

control without succumbing to folksy rusticity.¹⁴ Some had gardens by Herta Hammerbacher, one of the leading modernist landscape designers who also worked with Scharoun, and Eiermann conducted bold experiments with transparency and spatial transitions that anticipate his later work. His way of getting his work past unsympathetic and philistine planners by making it deadpan and straightforwardly constructive contrasts intriguingly with the game-like tactics of Scharoun, who accepted a more overtly vernacular shell, even verging on caricature, so that he could develop his unprecedented spatial pyrotechnics within.¹⁵

Retreat into 'objectivity'

It seems that Eiermann, like Mies, did his best to stay out of politics, but he retained his stubborn integrity and could be outspoken. He employed a Jewish secretary until publicly denounced in the Nazi newspaper *Stürmer*, for example, and in 1935 he launched a risky and scathing critique in *Bauwelt* about the competition for a theatre in Dessau in which he had taken part, lambasting other entrants for borrowing past styles, and for seeking monumental effects while ignoring technical imperatives.¹⁶ Psychological pressure on the non-conforming gradually increased, and Eiermann's partner Jaenecke emigrated to Sweden in 1936. It was in the following year, 1937, that Eiermann compromised himself by designing the hall for an exhibition of Nazi propaganda,¹⁷ and perhaps he needed to prove his credentials with the party, but otherwise he seems to have kept clear of official projects, working directly for the regime only towards the middle of the war, when he planned an airfield and a temporary hospital.¹⁸ His refuge was industrial work: under the assumption that it



was merely technical, and that technical efficiency was a good thing, this was the only area of building free from stylistic interference.¹⁹ Once the war had started, his work included both a propellor factory and a shipyard, so it cannot be regarded as free from Nazi ambitions, but it allowed some sense of detachment. Astonishingly, Eiermann was able to design three factory buildings in the heart of Nazi Germany between 1938 and 1940 so uncompromisingly modernist in spirit and appearance that they could be ten years earlier or ten years later.²⁰ The architecture seems so complete in itself, so strict and elegant in following faithfully its own rules, that it could override the changing politics and social mores to become timeless.²¹ But this comforting view is not beyond challenge: some might argue that industry with its amoral pursuit of technique and economy is already inherently fascistic, while others would claim that in denying their social context buildings are necessarily autistic. We shall reconsider these arguments later.

After the war the industrial work continued and remained an essential part of Eiermann's office workload. The handkerchief factory at Blumberg of 1949-51 gained international recognition and set the tone for other industrial projects: a big efficient hall with very wide spans and a couple of lower buildings for the entry and boiler house. The whole made a well-composed and carefully scaled ensemble, nicely proportioned and immaculately detailed. By careful treatment of edges, Eiermann managed to make that most banal of materials – corrugated asbestos-cement sheet – look delicate and elegant. Besides its factories, Eiermann's office built offices, department stores and many other buildings, all carried out with consummate efficiency and generally counted among the best of



2. (opposite left) Extension to electricity works, Berlin-Steglitz 1928-1930.

3. (opposite right) Hesse House, Berlin-Lankwitz 1931-1933.

4. (below left) Steingroever House, Berlin-Grünwald 1937.

5. (above) Degea factory Berlin-Wedding 1938.

6. (below) Handkerchief factory Blumberg, 1949-51.

7. (bottom) Steingroever House plan.

