docomomo

International committee for
documentation and conservation
of buildings, sites and neighbourhoods of the
modern movement

Le Corbusier's Inscription on the World Heritage List?

The Guggenheim at Fifty

NINE FAVORITE ARCHITECTS

September 2009 N°41

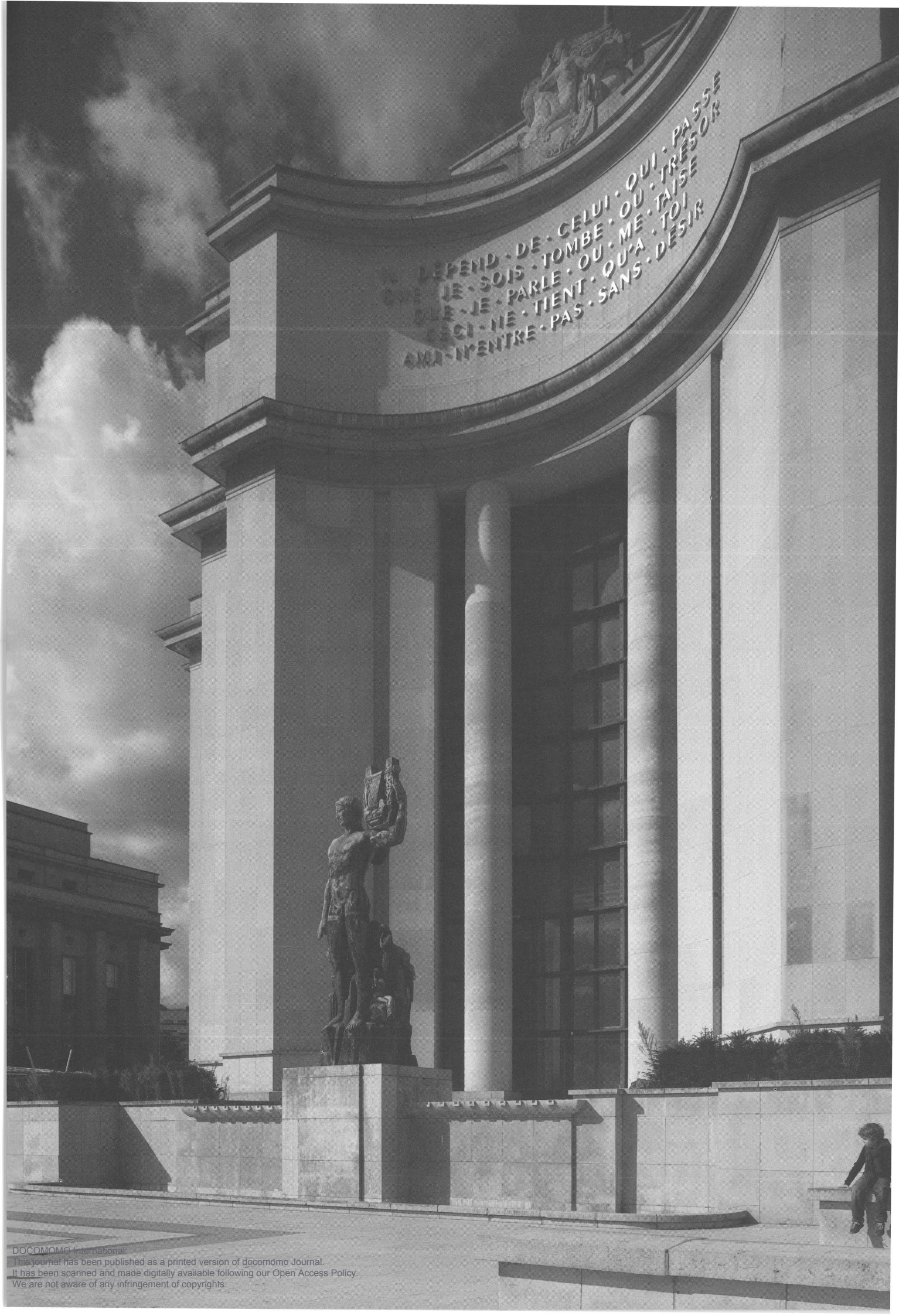
TABLE OF CONTENTS

cover page: Cuban architect **Max Borges Recio** at his home studio, Virginia, United States, 1994

editorial

Dear Docomomo members,

Let me begin this editorial, the last of my eight-year chairmanship, on a personal note.
In the fall of 2002, I launched the first issue of the new series of *Docomomo Journal*. I had received the mandate from my predecessors—Hubert-Jan Henket and Wessel de Jonge—with a challenging task: the *Journal* is the voice of Docomomo International to the world, it is our banner, do not betray its spirit. I shared that meaningful yet heavy mission with Émilie d'Orgeix, the newly elected secretary general. How many issues to establish a series?
At least four, we thought. We performed the task at best, thanks to the support of the French Ministry of Culture and Communication, publishing fourteen issues between March 2003 and September 2009.
The selection of themes to address more specifically in each issue was an ever-renewing testing ground. We opened the series with an issue on "Modern Heritage in Africa" that nearly a decade later is considered an unprecedented manifesto. The historiographically challenged legacy of modernism in non-Western countries made the step toward the notion of "other modernisms" imperative. We could have embraced the market economy rhetoric and replaced intellectual commitment with global strategies that would amplify the corporate logo and transform Docomomo into an agency. Instead, we established a rigorous intellectual discipline and infused all our projects and any advocacy plans we undertook with a sense of alternative ethics. Being anti-dogmatic, we opened our minds to a broad and anti-individualistic search for the roots of our twentieth-century modernity. Any attempt to formalize a credo was banned; besides giving authority to experimentation, we were able to explore new theoretical positions and to proceed much further into the famous and ongoing modern movement dispute of "ancient versus modern."
Technology has proved to be a valuable ally in good practices of conservation of our recent past; indeed some of the buildings paradigmatic of the modern age were saved after a 360-degree investigation of their original technological performances. Their experimental characteristics have taught our contemporary architects the art of being modern. In the end, our being critical of any school of thought that emerged in the past century offered a deeper understanding of the values embedded in the search for modernity in our culture as well as in other traditions.
The contents of *Docomomo Journal* 41 reflect the multifaceted approaches of Docomomo International to the issue of modern heritage. First, it pays a tribute to the late Catherine Cooke on the fifth anniversary of her death. Catherine was more than a friend of Docomomo; she epitomized at best the Docomomo strategy of conservation as part of a creative and



forward-looking process. Her thorough research into the Russian architectural avant-garde of the 1920s and 1930s, the conservation of whose products was a subject dear to her, inspired many of us. Docomomo International remembers her by subsidizing the publication of the second edition of *Moscow Heritage at Crisis Point.*

Second, we recognized the relevance of the inscription of Le Corbusier's buildings on the World Heritage List. The momentary postponement of the proposal submitted at the end of 2008, and today a renewed nomination process, have revealed a double concern: on one hand, the selection of works for serial nomination requires a very delicate screening between masterpieces and seminal buildings; on the other end, the present procedure to evaluate twentieth-century heritage needs to be reconsidered, adjusting its criteria to a wider perspective than authenticity or uniqueness. We have given voice to these preoccupations with the bilingual French-English publication of a long article, with the objective of giving a broad visibility to this important topic.

Third, we made the choice of celebrating the architect as a creator. Docomomo International must champion the role of those who have carried out the programs of the modern movements. Our *raison d'être* is totally rooted in their faith and ethics of work.

In concluding this farewell, I wish to thank all the guest editors who contributed to the success of the *Docomomo Journal*; our many and skillful collaborators, among whom Isabelle Kite, our thorough and invaluable assistant editor and language editor, our highly creative and dedicated graphic designer Agathe Desombre and her collaborator Mathieu Chevalier; and last but not least, Émilie d'Orgeix, secretary general, and Anne-Laure Guillet, director, without whom Docomomo International in Paris could never been so professional, welcoming and efficient. We have worked as a group, which gave us pleasure and lots of fun too. All the rest is life.

MARISTELLA CASCIATO
chair of Docomomo International

Chers membres de Docomomo,

Cet éditorial est le dernier d'une présidence qui aura duré huit ans. À l'automne 2002, j'ai lancé le premier numéro d'une série de Docomomo Journal *que mes prédécesseurs, Hubert-Jan Henket et Wessel de Jonge, avaient créé pour être la voix et la bannière internationale de notre organisation. J'ai partagé cette tâche avec Émilie d'Orgeix qui venait d'être nommée secrétaire générale. Combien de numéros de la revue serions-nous capables de publier ? Quatre au moins, espérions-nous sans imaginer que nous aurions la possibilité de publier, grâce au soutien renouvelé du ministère de la Culture et de la Communication français, quatorze numéros entre mars 2003 et septembre 2009.*

La sélection des thématiques de la revue aura été à chaque fois un défi renouvelé. La série s'est ouverte sur le thème du patrimoine moderne en Afrique, un numéro considéré – presque une décennie plus tard – comme un manifeste sans précédent. L'étude de l'héritage de la modernité dans les pays non-occidentaux a également ouvert la voie aux recherches sur l'altérité et la notion d'« autre modernisme », concept analysé en détail lors de la neuvième conférence internationale de Docomomo organisée en Turquie en 2006. Plutôt que de mettre l'emphase sur des stratégies économiques et politiques qui auraient servi la position institutionnelle de Docomomo, transformant l'organisation en une agence patrimoniale, nous avons choisi de respecter l'engagement militant et intellectuel de notre organisation depuis sa fondation. En établissant une discipline rigoureuse dans tous nos projets, en tâchant de ne formaliser aucun dogme ou doctrine, nous avons su rester ouverts à

des approches très larges explorant de multiples pans de la modernité au XX^e siècle. Cette ouverture intellectuelle à l'expérimentation, liée à l'expansion géographique de notre réseau, nous a permis d'explorer de nouvelles positions théoriques et de dépasser les éternels débats opposant anciens et modernes.

Les recherches sur la technologie ont été importantes pour développer de bonnes pratiques de conservation du passé récent ; certains bâtiments iconiques de la période moderne ont été sauvés grâce à des recherches exhaustives menées sur leurs spécificités techniques. Leurs caractéristiques expérimentales ont appris à nos architectes contemporains l'art d'être moderne. Rester critique vis-à-vis de toute école de pensée ayant vu le jour au siècle dernier a permis une compréhension plus profonde des valeurs liées à la recherche de modernité dans notre culture et dans d'autres traditions.

Le contenu du Docomomo Journal *n° 41 reflète l'approche pluridisciplinaire de Docomomo envers le patrimoine moderne. Il rend tout d'abord hommage à Catherine Cooke, disparue il y a déjà cinq ans. Catherine était plus qu'une amie : elle représentait, par sa culture, son ouverture et son esprit iconoclaste, les valeurs fondamentales de notre organisation. Ses recherches sur l'architecture d'avant-garde en Russie dans les années 1920 et 1930 ont été des sources d'inspiration pour de nombreux membres de Docomomo. Dans ce numéro, nous tenions à rappeler le legs financier qu'elle a accordé à Docomomo et qui a servi à la publication du dernier rapport de MAPS sur l'état du patrimoine moderne à Moscou.*

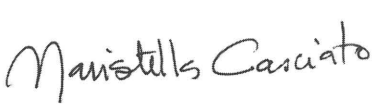
Il nous a ensuite paru important de publier un article sur la candidature préparée pour l'inscription de l'œuvre de Le Corbusier sur la Liste du Patrimoine mondial de l'Unesco. Le report de la candidature déposée à la fin de l'année 2008 suivi du dépôt d'un nouveau dossier met en lumière la complexité du dossier. D'un côté, la sélection des travaux pour une nomination dans la catégorie « biens en série » nécessite un équilibre très fin entre les différents édifices et ensembles choisis ; d'un autre côté, la candidature actuelle met en valeur les problèmes d'ajustement des critères patrimoniaux, notamment d'authenticité et d'unicité qui prévalent toujours. Nous avons choisi de publier cet article en français et en anglais pour donner une meilleure visibilité à ce dossier fondamental.

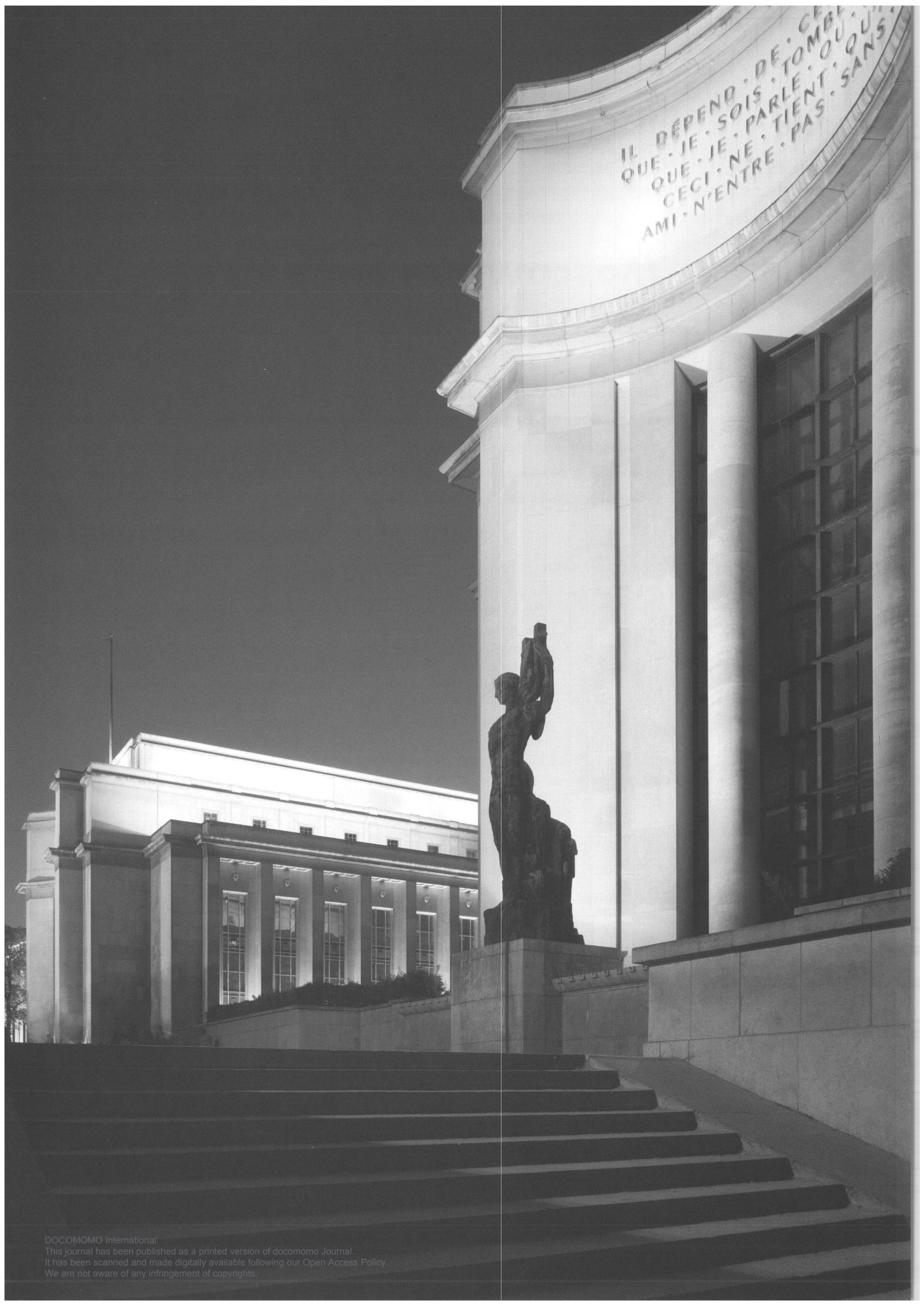
Enfin, ce numéro célèbre l'architecte créateur. Le rôle de Docomomo est de mettre en valeur les grandes figures du mouvement moderne. Notre raison d'être est intimement liée à leurs convictions et leur éthique du travail.

En guise de conclusion de ce long mandat, je tiens à remercier tous les éditeurs invités du Docomomo Journal *ainsi que mes collaborateurs durant toutes ces années. Isabelle Kite, éditrice exigeante et rigoureuse de langue anglaise, Agathe Desombre et son collaborateur Mathieu Chevalier, graphistes créatifs et inventifs et enfin Émilie d'Orgeix, secrétaire générale, et Anne-Laure Guillet, directrice, grâce au professionnalisme et à la compétence desquelles le secrétariat de Docomomo International à Paris n'aurait pas fonctionné de manière aussi fluide et efficace.*

Ce fructueux travail d'équipe nous a apporté beaucoup de plaisir et de satisfaction. C'est le sentiment qui reste aujourd'hui de cette longue aventure.

MARISTELLA CASCIATO
présidente de Docomomo International





Moscow Heritage at Crisis Point

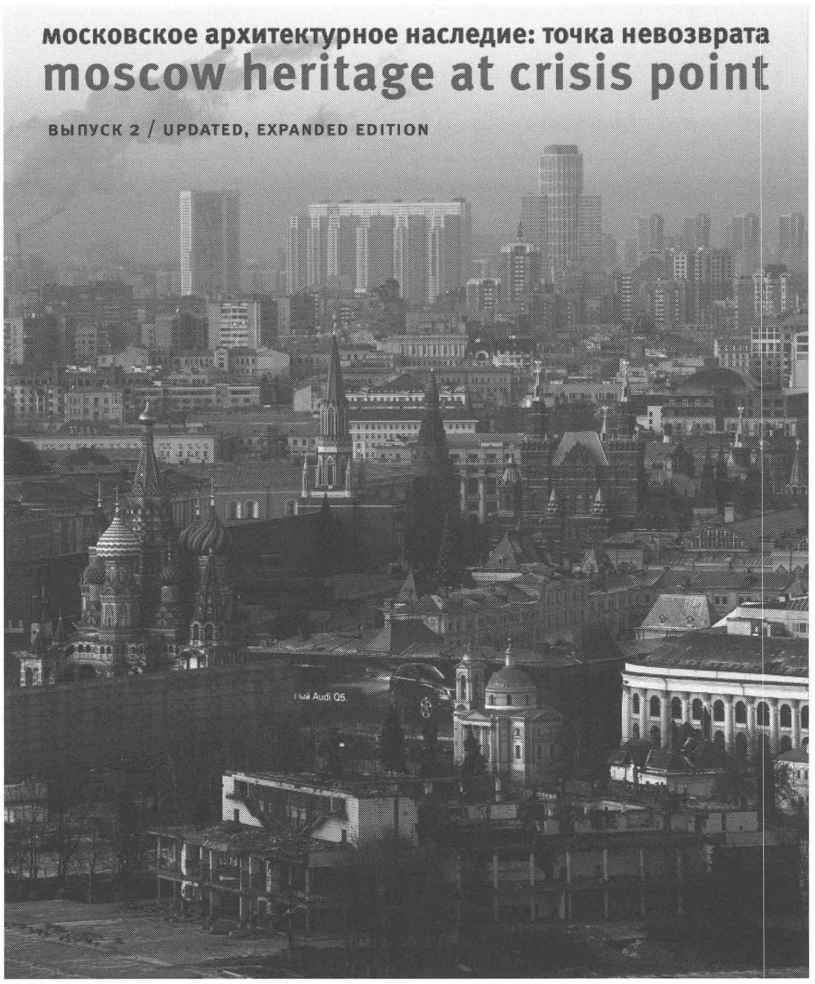
The Moscow Architecture Preservation Society (MAPS) was set up a few months after the tragic death of pioneering scholar and researcher of Soviet avant-garde architecture, Catherine Cooke. The people we met in the course of establishing ourselves as an organization, both in Moscow and abroad, often referred to Cooke and her work.

CLEMENTINE **CECIL**

We found that thanks to her work, the international community was already alerted to the terrible neglect of the architecture of the avant-garde. We found that in some ways we were continuing where she had left off, for example in monitoring projects for avant-garde buildings, such as Narkomfin (Moisei Ginzburg and Ignaty Milinis, 1928–1930), and the Maslennikov Factory Canteen in Samara (E.N. Maximova, 1930–1932), and also in informing the international community of their state.

Therefore, we were honored that the grant that she left in her legacy to Docomomo International "for use and assistance within work on Russian architecture" was awarded to MAPS to help complete our most major publication to date. This is the second edition of the bilingual report, *Moscow Heritage at Crisis Point*, published in July this year in Moscow. Our initial sponsor was unable to pay for a full print run, and Catherine Cooke's money has meant that we could complete the project. Maristella Casciato wrote a two-page contribution from Docomomo that ran immediately after the preface to the report, highlighting the significance of the architecture that Catherine Cooke researched and campaigned for, saying: "I belong to a generation which views the contribution made by the Russian avant-garde towards the Soviet brave new world as the very origin of our modernity."

Casciato, who also represents Docomomo on the International Committee for the Melnikov House (Konstantin Melnikov, 1927–1929), writes: "the house is in legal limbo, probably the most dangerous threat of all given the voracity of Moscow's property developers." She also highlights the continuing threats to Narkomfin. Despite the fact that MIAN property developers announced their interest in restoring Narkomfin and turning it into a hotel, due to financial difficulties nothing has been done, and the building is decaying at a fast pace. Another winter ahead without repairs will accelerate damage further. Alas, while interest in the avant-garde has undoubtedly grown since the Heritage@Risk



conference in Moscow in 2006, the financial problems in Russia and the lack of political will to support these projects on the part of the city authorities mean that progress is very slow.

Therefore it is vital to keep monitoring the situation and informing Muscovites and the wider world. This report is the cornerstone of MAPS's campaign. Like the first one, published in May 2007, it is a collaboration with SAVE Europe's Heritage. The report condemns the losses while illustrating the astonishing range of historic buildings in Moscow, from medieval churches to postwar modernism—all threatened by the furious pace of redevelopment of the city by a coterie of property developers during the tenure of Mayor Yury Luzhkov.

The first chapters of the 300-page, lavishly illustrated report consist of an outline of Moscow's architectural history. The second section of the report deals with 'The Crisis Facing Moscow's Heritage:' here is a register of buildings lost in Moscow in the last two years, and those that are under threat today. These include the Bolshoi Theater, Mayakovsky Metro Station, and Ivan Nikolayev's Hostel for Students of the Textile Institute (1929).

The third section, 'Conservation, Theory, Best and Worst Practice,' takes a look at Direct Action campaigning in Moscow and gives practical advice to those wishing to campaign to save a building. Architectural historian Nataliya Dushkina's essay, here on 'Authenticity,' tackles the philosophical crux of the problem in today's Moscow, where the mayor has publicly stated that he believes "the conceptual, historical and cultural 'baggage' that a copy carries can often be richer and more profound than the original design."[1] "Never has Russia strayed so far from the scientific principles and methods endorsed by the international academic community, from observing the doctrines dealing with heritage conservation," writes Dushkina.

The report ends with a chapter on St Petersburg, outlining the threats that the city's heritage faces. This was contributed by Living City, the main campaign group there. Some 100 buildings have been demolished in St Petersburg in the last six years, many of these official monuments. The city was industrialized in the late 1920s and 1930s and is home to many important avant-garde buildings, many of which are neglected, their significance unrecognized by the authorities or the public. We hope that this chapter in the report will aid St Petersburg in the hard battle that it is now waging to save its heritage.
The report has already attracted a great deal of press within Russia and abroad. The press conference was well attended by print, radio and television journalists. In this way, news of the report is spreading over the globe.
The involvement of Docomomo has greatly increased the status of the report, and we hope it will alert architects to the problems in Moscow, many of whom work there in ignorance of the dire state of its modernist buildings and its historic streetscapes.

The full report is also available to read online on *www.maps-moscow.com*

CLEMENTINE CECIL *is a co-founder and trustee of MAPS. She is a journalist and campaigner for the preservation of built heritage. She co-edited the first edition of* Moscow Heritage at Crisis Point *in 2007. She lived in Moscow from 2001 to 2005 and is now based in London.*

NOTES
1 *Izvestia Newspaper*, May 19, 2004.

(Un)loved Modern
Conservation of 20th-Century Heritage Conference

SYDNEY, AUSTRALIA: JULY 7–10, 2009

DAVID **WEST**

Conference

The (Un)Loved Modern conference on the conservation of twentieth century heritage was held at the Sydney Masonic Center, in Sydney, Australia, between July 7 and 10, 2009. It was organized by key international organizations engaged in the conservation of twentieth century heritage including Australia Icomos, Docomomo Australia, Icomos International Scientific Committee on Twentieth Century Heritage, APT Australian Chapter, the Australian Institute of Architects, and the International Union of Architects.
The conference brought together approximately 230 professionals from twelve countries. In addition to the keynote speakers, conference attendees included Maristella Casciato, chair of Docomomo International; Louise Cox, president of the International Union of Architects; and Gustavo Araoz, president of Icomos.

Program

The conference combined two and a half days of papers with an afternoon of field sessions. Each day commenced with two keynote lectures, followed by three parallel streams of papers grouped in the following themes:
- (Un)Loved Modern
- Re-engaging with Original Designers
- The Single House under Threat
- Managing Twentieth Century Obsolescence
- Re-thinking Colonial Heritage
- War in the Pacific
- Technical Challenges

Full details of the program, papers and authors are available from the conference website, www.aicomos.com

Keynote Presentations

The keynote presentations started with a survey of the state of twentieth century built heritage conservation in Australia by Dr Philip Goad, professor of architecture at the University of Melbourne. He postulated that there are four fundamental difficulties in considering the conservation of twentieth century buildings: the difficult type, the difficult idiom, the difficult comparison and the difficult house.
The architect responsible for the Sydney Opera House masterplan, Richard Johnson, a principal of Johnson Pilton Walker, spoke about the challenges involved with this work, and in particular, the process of re-engaging Jorn Utzon. His presentation was followed by a roundtable session involving key stake-holders in the management of the Opera House.
On day 2, Professor Leo Schmidt from the Brandenburg University of Technology at Cottbus gave a graphic demonstration of current trends in Germany, involving the replication of traditional building forms at the expense of conserving modern constructions. He challenged the audience to consider the difficulties in sharing their belief about the significance of modern architecture with the broader community.
Dr John Schofield, head of Military Programs with English Heritage, presented an alternative (archaeological) perspective on what constitutes modern heritage, and highlighted the importance of observing and recording what exists before it is lost because we probably don't yet fully understand its significance.
The final day started with Dr Theo Prudon, of Prudon & Partners, and president of Docomomo US, whose presentation entitled "Housing Redux: the (Un)Loved and the (Un)Learned" explored the conflicting issues arising from efforts to conserve social housing constructed during the modern era.
Sydney's own Susan Macdonald, now head of Field Projects at the Getty Conservation Institute, talked about the materiality and monumentality of modernism, and concluded her presentation with 14 key points requiring consideration if twentieth century heritage is to be adequately recognized and protected.

Outcomes

At the concluding session of the conference on July 10, 2009, the participants identified five key issues or actions needed to advance the conservation of twentieth century heritage:

1. Expand and promote community appreciation of twentieth century heritage
Expand and promote the scope of current programs for the identification and protection of

twentieth century heritage places to recognize places of the modern movement and the era's richness and diversity beyond the architectural icons.

2. Record the legacy of the recent past

Recognize the accessibility of the recent past and initiate programs and actions to record its legacy using a variety of means to capture the living memory of the recent past. Include records of personal experiences of places by communities and individuals.

3. Engage with the original designers/creators

Record the direct experiences of the creators of the heritage of the recent past and use this information in identifying and listing works. Capture the original architects', engineers', designers' and commissioners' ideas on significance and maintenance of the place while possible, and the creators' thoughts on crucial issues for conservation which can be included, albeit contextualized, in any future change.

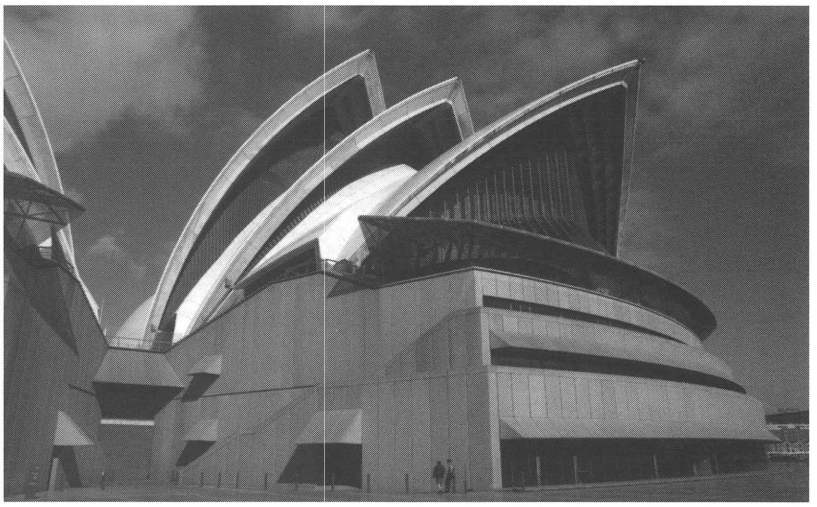
4. Build support for and knowledge about twentieth century heritage as part of protection and conservation programs

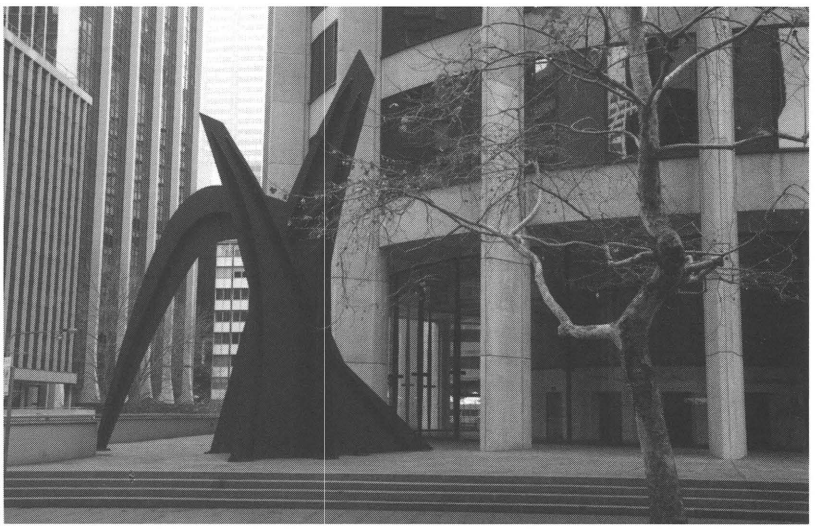
Recognize the need for identification and listing programs to move beyond existing procedures, and include community promotion and awareness raising, engagement and educational/communication programs to build understanding about, and support for, twentieth century heritage.

5. Meet technical challenges through advancing practice & sharing information

Expand the repertoire of tools and technologies to meet the technical challenges for conserving twentieth century heritage through sharing research, practice and publication, including developing methods to assess issues relating to cultural sustainability.

DAVID WEST *was secretary of Docomomo Australia from its founding in 2000 until 2009. He was a member of the organizing committee for the 2009 (Un)Loved Modern Conference.*





Figs. 1, 2, 3. photos © Franco Panzini

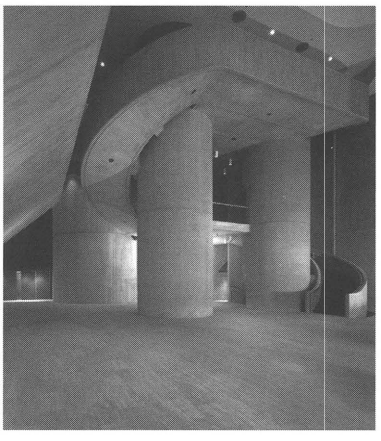


photo Eric Sierens © Max Dupain and Associates

Fig. 1. **Jørn Utzon**, *Sydney Opera House*, 1956–1973. (Be)Loved Modern

Fig. 2. **Alexander Calder**, *Crossed Blades*, 1967, Australia Square Tower, Sydney

Fig. 3. Modern Heritage: Its Place and Progress on the WHL, performance in the Utzon Room, Sydney Opera House, July 8, 2009. From left to right: Peter Spearritt, Louise Cox, Maria Sykes, Maristella Casciato, Susan Macdonald, Sheridan Burke, Helen Lardner

Fig. 4. **Joseland and Gilling**, *Masonic Center*, Sydney, 1974

In 1998 Docomomo Registers' Committee concluded its report on "Modern Movement and the WHL" with a recommendation to Icomos that the works of four major modern designers be granted serial inscription, as the sine qua non condition for their universal recognition. It was the first attempt at overcoming the issue of the masterpiece as the only marker for modernity. A decade later, Le Corbusier's oeuvre is a major test for the notion of "serial inscription." Acknowledging the leadership of the French Ministry of Culture in submitting the nomination dossier, as well as the case's significance for a larger public, the *Docomomo Journal* has exceptionnally decided to publish this essay both in English and in French.

OLIVIER **POISSON** & MARIE-NOËL **TOURNOUX**

The Notion of Oeuvre: **Le Corbusier's Inscription** on the World Heritage List

In substance, Icomos's recommendation rejecting the proposal to include Le Corbusier's work on the World Heritage List, established in preparation for the World Heritage Committee in Seville (June 2009) proposed to *postpone* it in order to "(1) reconsider the nomination's basis, in order to focus attention more on buildings and town planning layouts than on their architect; (2) consider, instead of a comprehensive proposal nominating a series, a more limited proposal to list individual buildings that would be deemed exceptional in terms of architectural shape or influence, or as sources of inspiration for the modern movement."

Such a statement clearly opposed the conception that underpinned the dossier, and which led six countries (Argentina, Brazil, France, Germany, Japan and Switzerland) to prepare it together. Their dossier introduced a series, that is a group of twenty-two buildings representative of eight typologies observed in Le Corbusier's work, and selected for being either a prototype or an example typical of one of the eight fields (given other conditions, such as the building's conservation state or the competent authority's political wish to protect it). The opposition could be due to a fundamental difference of opinion on the approach to world heritage, or at the very least on the notion of series. Owing to the divergence's universal significance, we would like to examine it in detail, and three points in particular:

- according to Icomos, any reference to the architect's oeuvre or creative thinking should be banned; one should only refer to certain buildings, "outstanding in terms of architectural shape;"
- there should only be a very limited amount of buildings thus singled out. Icomos, moreover, does not mind pointing out which ones it would nominate: Villa Savoye in Poissy, the Unité d'Habitation of Marseilles, the Chapel of Notre-Dame-du-Haut at Ronchamp;
- the idea of a series needs to be re-examined.

In short, Icomos's stance seems to suggest that Le Corbusier's "oeuvre"—that is, the ensemble of his built productions, the product of his thinking, developed in a specific time and space, progressively nurtured by the architect's accomplishments and failures—does not exist, or in any event cannot be considered of outstanding universal value. Only the three previously mentioned buildings would be considered of such value; only they would intrinsically have, and seemingly as an afterthought, such significance as to be considered influential in twentieth century architecture. Icomos's position is, fundamentally, a "monumental" vision, which narrows down heritage to masterpieces and to the appreciation of formal and stylistic beauty; as if the heritage approach could take into account neither the ambitions nor the values of a civilization, but only the visual evidence of monuments. Essentially, Icomos seems to encourage selecting only "icons" of modern architecture built by Le Corbusier, in a "Wonders of the World" approach, considering neither heritage practices, nor the developments of doctrines and policies in that field.
One wonders if the social sciences haven't somewhat evolved since Herodotus, or even since the 1972 Convention?

What is heritage, what is architectural heritage? The implicit answer expressed in the evaluation of the nomination dossier is: architectural heritage consists of monuments (or ensembles), buildings (or cities, or landscapes), unique and coherent, which, alone, can bear witness to the past through their tangible existence. According to this, Villa Savoye, for instance, has outstanding universal value, inherently and as a 'monument' of modern architecture, but one would refuse to consider it as an element from an ensemble, moreover from an ensemble identified around the creative thinking of an author,

En 1988, le comité Inventaire de Docomomo publiait un rapport sur le mouvement moderne et la Liste du Patrimoine mondial, et recommandait à l'Icomos l'inscription « en série » des œuvres de quatre grands architectes modernes comme condition sine qua non de leur reconnaissance universelle. Ce fut la première tentative de dépasser la problématique du chef-d'œuvre comme unique marque de la modernité. Une décennie plus tard, l'œuvre de Le Corbusier fait figure de test pour la notion d'« inscription en série ». Prenant acte du rôle central du ministère français de la Culture dans la préparation de la candidature, ainsi que de la portée de l'événement pour un public plus large, le *Docomomo Journal* a exceptionnellement décidé de publier cet article en français.

Le Corbusier *sur la Liste du Patrimoine mondial : qu'est-ce qu'une œuvre ?*

La recommandation de l'Icomos sur le dossier d'inscription de l'œuvre de Le Corbusier sur la Liste du Patrimoine mondial établie en vue du Comité du Patrimoine mondial de Séville (juin 2009) s'exprime ainsi : « [il est proposé de différer le dossier dans le but de] (1) reconsidérer la base de la proposition d'inscription, afin de concentrer essentiellement l'attention sur les bâtiments et les plans urbains plutôt que sur leur architecte ; (2) envisager, au lieu d'une grande proposition d'inscription en série, la proposition d'inscription d'une sélection limitée de bâtiments individuels, que l'on pourrait juger comme exceptionnels en termes de forme architecturale et d'influence ou comme source d'inspiration dans le cadre du mouvement moderne. Cette formulation s'oppose aux bases conceptuelles qui sous-tendent le dossier et qui ont conduit six

Fig. 1. **Le Corbusier**, *Unité d'habitation known as Cité Radieuse,* Marseilles (France), 1947–1952. An interior street
How should one understand and approach Le Corbusier's work within the context of the modern movement, and in terms of influence, dissemination, and above all socio-economic and heritage conditions. Let us consider his work not in stylistic or formal terms, but rather as a particular moment in the history of architecture and town planning, in terms of programs and answers to the major issues of the twentieth century, and whose production was contingent on contemporary construction and commissioning processes as well as uses. What does that imply concerning heritage? What are the values that justify protection? What should be the groundwork for conservation, protection, management and studies approaches?

Figs. 1, 2, 3, 4 & 5, photos O. Poisson © Fondation Le Corbusier

Fig. 1. ***Le Corbusier***, Unité d'habitation dite Cité radieuse, *Marseille (France), 1947-1952. Une des rues intérieures*
Comment comprendre et aborder l'œuvre de Le Corbusier en la replaçant dans l'histoire du mouvement moderne en termes d'influence, de diffusion et surtout de contexte socio-économique et patrimonial ? Prenons le parti d'envisager l'œuvre non pas en termes stylistiques ou formels mais comme un moment particulier de l'histoire de la production architecturale et urbaine, en termes d'élaboration de programmes et de réponses aux grands enjeux du XX^e siècle et en fonction de modes de production, de commande et d'usage. Que cela implique-t-il en matière de patrimoine ? Quelles sont les valeurs qui justifient d'une protection ? Quelle doit être la base des approches de conservation, protection, gestion et étude ?

architect, theoretician and artist. Let us be quite clear: we do not mean to say that this definition of heritage is today mistaken. A physical monument can indeed be a witness, a tangible 'relic' bearing immaterial representations: these representations, formed by the human mind and collectively shared, are what one calls identity, memory, feelings of belonging to a group—religious or not—or simply explanations, an understanding of the world, emotions, history.

But the history of 'heritage,' a modern notion that cannot be traced before the early nineteenth century, has shown over its two centuries of existence that heritage is not limited to 'monuments' with symbolic commemoration value. In fact and more precisely, these monuments, otherwise known as heritage objects, can cover a wide range of realities. This well-known evolution of the notion has chronologically and typologically broadened the field of heritage, far beyond the categories of art history; in particular it has posited that a monument or work and its context are inseparable; and it has also established the significance of immaterial values that can be supported by objects without particular esthetic or technical value. A recent upshot of the notion's development is the Convention on Immaterial Heritage adopted by Unesco.
Obviously our point is not to revisit in a theoretical way the notion of heritage, but to examine the question posed by Icomos, that of the illegitimacy of identifying one man's work as constituting heritage. This question requires thinking in a global way, and, at any rate, in a historical way.

At the beginning of the idea of heritage, that is, of deliberately, consciously and collectively distinguishing an object from the shared public sphere, is the idea of being surprised. In the first place, the "wonders," or *mirabilia*, are things that elicit surprise, that deserve to be observed. Surprise, or strangeness—that is, a lack of understanding—is a lead-in to identification, still powerful today.

However, the modern character of heritage invented in the nineteenth century resides wholly in associating "admirable" monuments with a rationale, or a historic discourse. It was, in the nineteenth century, the association of buildings and their architectural style to the national narrative that strengthened the notion of heritage (without the word being actually used), by accompanying the creation

Fig. 2. **Le Corbusier**, *Stade*, Firminy (France), 1965–1968. The tribune has remained unfinished. Behind it is the church of Saint-Pierre (1971–1975 and 2003–2006), realized after the architect's death by his collaborator José Oubrerie

Fig. 2. ***Le Corbusier***, Stade, *Firminy (France), 1965-1968. La tribune est restée incomplète. Derrière, on aperçoit l'église Saint-Pierre (1971-1975 et 2003-2006), réalisée après la mort de l'architecte par son collaborateur José Oubrerie*

Fig. 3. **Le Corbusier**, *Chapelle Notre-Dame-du-Haut*, Ronchamp (France), 1954–1955. Interior view of the pilgrims' shelter. Le Corbusier also designed the priest's house and a shelter for pilgrims
A particularity of Le Corbusier's work is that it has a large amount of documentary sources and archives, in addition to witnesses that are still alive. Frequently, however, knowledge is lacking: minute monographic studies—taking account of the context—and site analyses are as yet scarce, even for such well-known sites as Ronchamp. Regardless of the opinions on the project of building a convent for the Clarisse order in the vicinity of the Chapel, the first observation concerning the debates on the project's feasibility is the absence of a recent in-depth study of the Ronchamp site's surroundings. In many projects there are major gaps in the knowledge of the commission's context and the chronology of the creative process.

Fig. 3. ***Le Corbusier***, Chapelle Notre-Dame-du-Haut, *Ronchamp (France), 1954-1955. L'abri du pèlerin, intérieur. Le Corbusier a également construit une maison pour le desservant et un gîte pour les pèlerins*
L'œuvre de Le Corbusier a la particularité d'avoir des sources documentaires et archivistiques importantes, ainsi que des témoins encore vivants. La connaissance manque souvent : les études monographiques fines – prenant en compte le contexte – et les analyses de sites sont encore lacunaires, même pour des biens aussi reconnus que Ronchamp. Quelle que soit l'opinion sur le projet de construction d'un couvent de Clarisses aux abords de la chapelle, le premier constat, lors des débats sur la faisabilité du projet, porte sur l'absence d'étude récente et poussée sur les abords et le site de Ronchamp. Dans bien des projets, de grandes lacunes apparaissent quant à la connaissance du contexte de la commande et de la chronologie du processus créatif.

pays (l'Allemagne, l'Argentine, la Belgique, la France, le Japon et la Suisse) à proposer une candidature commune. Ce dossier présentait une série de biens, c'est-à-dire un ensemble de vingt-deux édifices représentatifs de huit champs typologiques de l'œuvre de Le Corbusier et sélectionnés soit en raison de leur caractère de prototypes dans chaque domaine, soit d'exemple représentatif (étant données d'autres conditions comme l'état de conservation ou la volonté politique de protection des autorités compétentes).
Il s'agit donc d'une divergence de fond sur la démarche et sur la notion de patrimoine mondial – du moins sur la notion d'une série de biens – sur laquelle nous souhaitons revenir. Trois points apparaissent :
• selon l'Icomos, toute référence à l'œuvre ou à la pensée créatrice de l'architecte doit être bannie, et référence ne doit être faite qu'à certains édifices « exceptionnels en termes de forme architecturale » ;
• les édifices ainsi désignés doivent être en petit nombre ; l'Icomos les désigne lui-même : la Villa Savoye à Poissy, l'Unité d'habitation de Marseille, la Chapelle Notre-Dame-du-Haut à Ronchamp ;
• le principe même d'un dossier en série est à redéfinir.
La position de l'Icomos signifierait que l'« œuvre » de Le Corbusier – c'est-à-dire l'ensemble de ses productions bâties, en tant que fruit de sa pensée, inscrite dans un temps et un espace, connaissant une évolution, des intérêts successifs, se nourrissant de ses succès comme de ses échecs – n'existe pas, ou qu'elle ne peut être considérée comme de valeur universelle exceptionnelle ; seuls trois édifices seraient considérés comme ayant eu une influence sur l'architecture du XX^e siècle. Cette vision « monumentale » réduit le patrimoine aux seuls chefs-d'œuvre et à une appréciation plastique et stylistique : comme si

Fig. 4. **Le Corbusier**, *Villa Les Heures Claires known as Villa Savoye*, Poissy (France), 1928–1931.
The caretaker's house is an example of Le Corbusier's realizations in the field of standardized housing

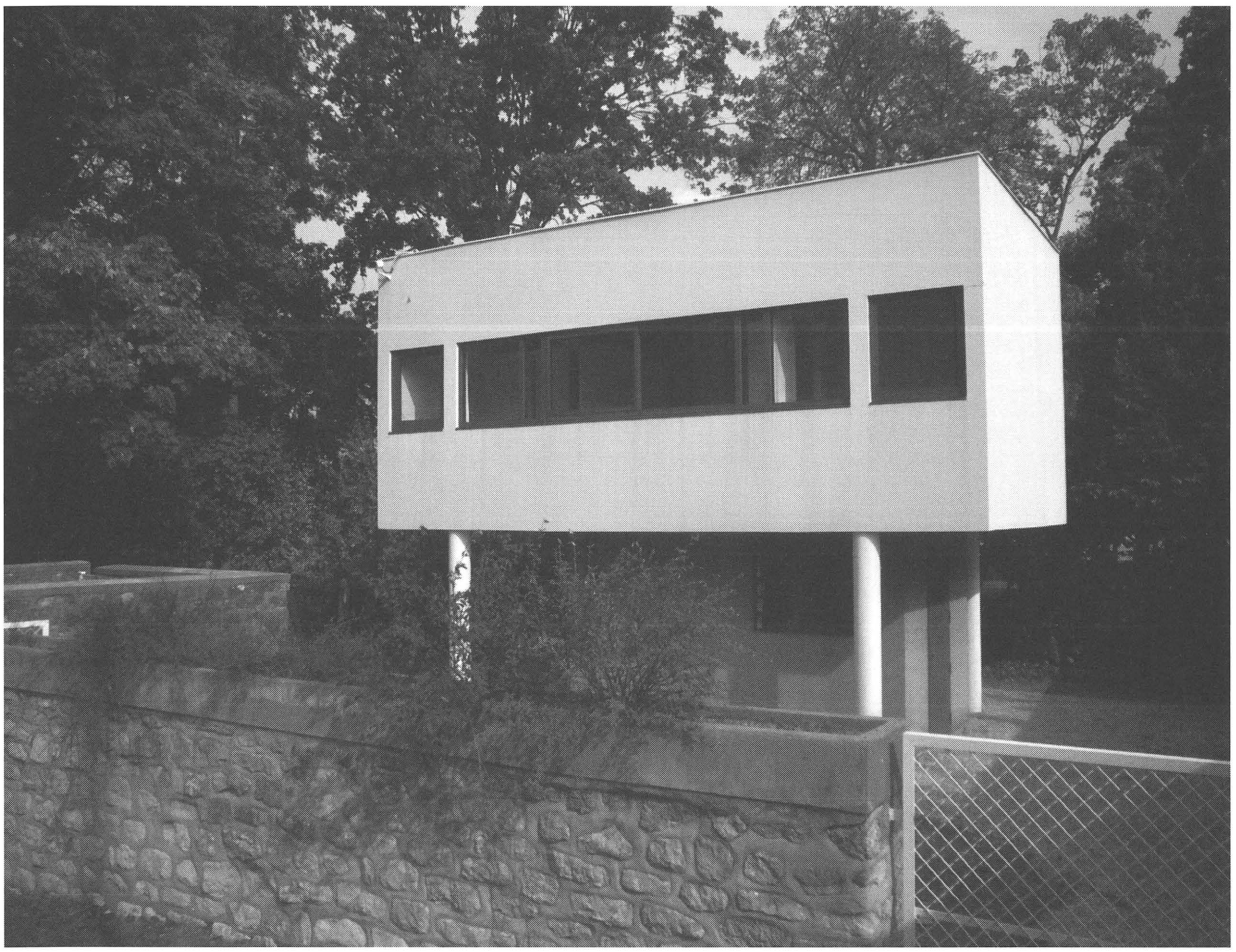


Fig. 4. ***Le Corbusier***, Villa Les Heures claires dite Villa Savoye, *Poissy (France), 1928-1931.*
La maison du gardien est l'une des réalisations de Le Corbusier dans le domaine de l'habitat standardisé

or strengthening of nation-states. Thus turned into witnesses of History, these 'monuments' were at the time extraordinary buildings, of which there was a limited amount. Such a selection of monuments sought to be rational, and not emotional; rarity, exemplarity or perfection of the testimonial replaced the strangeness of yesteryear. In that way, recognized masterpieces of art and architecture were summoned to illustrate the national genius at different times in history. In the early twenty-first century this conception of monuments is still present, but is no longer exclusive. Firstly, because history cannot be summed up by a set of examples, however prestigious. The developments of heritage show a growing awareness of the complexity of the cultural objects that bear witness to human history. The immaterial part of these objects has become crucial, although it is not frequently acknowledged in itself. But there is no escaping the truth: the intangible forms the meaning and value of the tangible, without which we would probably not even look at the tangible. As soon as the monumental approach was broadened to ensembles, or the context of monuments—towns, landscapes or furniture inside buildings—deemed worthy of protection and conservation, the heritage object's definition objectively began to include the intangible links joining the structures and shapes forming it to other structures and shapes associated with it, and the representations underlying them.

Furthermore, heritage objects and approaches cannot be considered as out of time and society, their use and enjoyment reserved to learned communities. Neither can heritage be opposed to the ongoing cultural modernization. Heritage practice is a policy that has evolved with the development and modernization processes of human societies; the current period's challenge and a major issue is to measure to what extent its underlying political and cultural choices are wholly adjusted to the dynamics of modern societies. The time has come to consider that the resources and means employed to safeguard heritage should not be limited to giving value to local mascots or images, or to the construction of state or town identities. It would be short-sighted or suicidal to deny the potential and resources of heritage, and unwise to disregard the endeavors in that direction of the international community and the Convention. Hence, the question posed is: today,

l'approche patrimoniale ne prenait en compte ni les ambitions ni les valeurs d'une civilisation mais seulement l'évidence plastique des monuments. L'Icomos invite à ne sélectionner que les « icônes » de l'architecture moderne construites par Le Corbusier, dans une démarche qui ressemble à celle des « merveilles du monde », sans prendre en compte la pratique patrimoniale ni l'évolution des doctrines et des politiques dans ce domaine. Or les sciences humaines ont évolué depuis Hérodote, ainsi que depuis la Convention de 1972.

Qu'est-ce que le patrimoine architectural ? Voici la réponse implicitement exprimée dans l'évaluation du dossier : des monuments (ou des ensembles), des édifices (ou des villes, ou des paysages) singuliers et cohérents qui ont la capacité de témoigner du passé par leur existence matérielle. Dans cette logique, la Villa Savoye, en tant que telle et en tant que « monument » de l'architecture moderne, a une valeur universelle exceptionnelle, mais on refuse de l'envisager comme l'élément d'un ensemble identifié autour de la pensée créatrice d'un auteur, architecte, théoricien et artiste.

Ce n'est pas que cette définition du patrimoine soit aujourd'hui fausse. Le monument matériel a certes cette capacité de témoignage, celle d'une « relique » tangible qui sert de support aux représentations immatérielles de l'esprit humain, que l'on appelle identité, mémoire, sentiment d'appartenance, ou explication, intelligence du monde, émotion, histoire. Mais l'histoire du « patrimoine » en tant que tel – notion d'invention moderne qui ne remonte qu'au début du XIX^e^ siècle – montre qu'il ne se limite pas

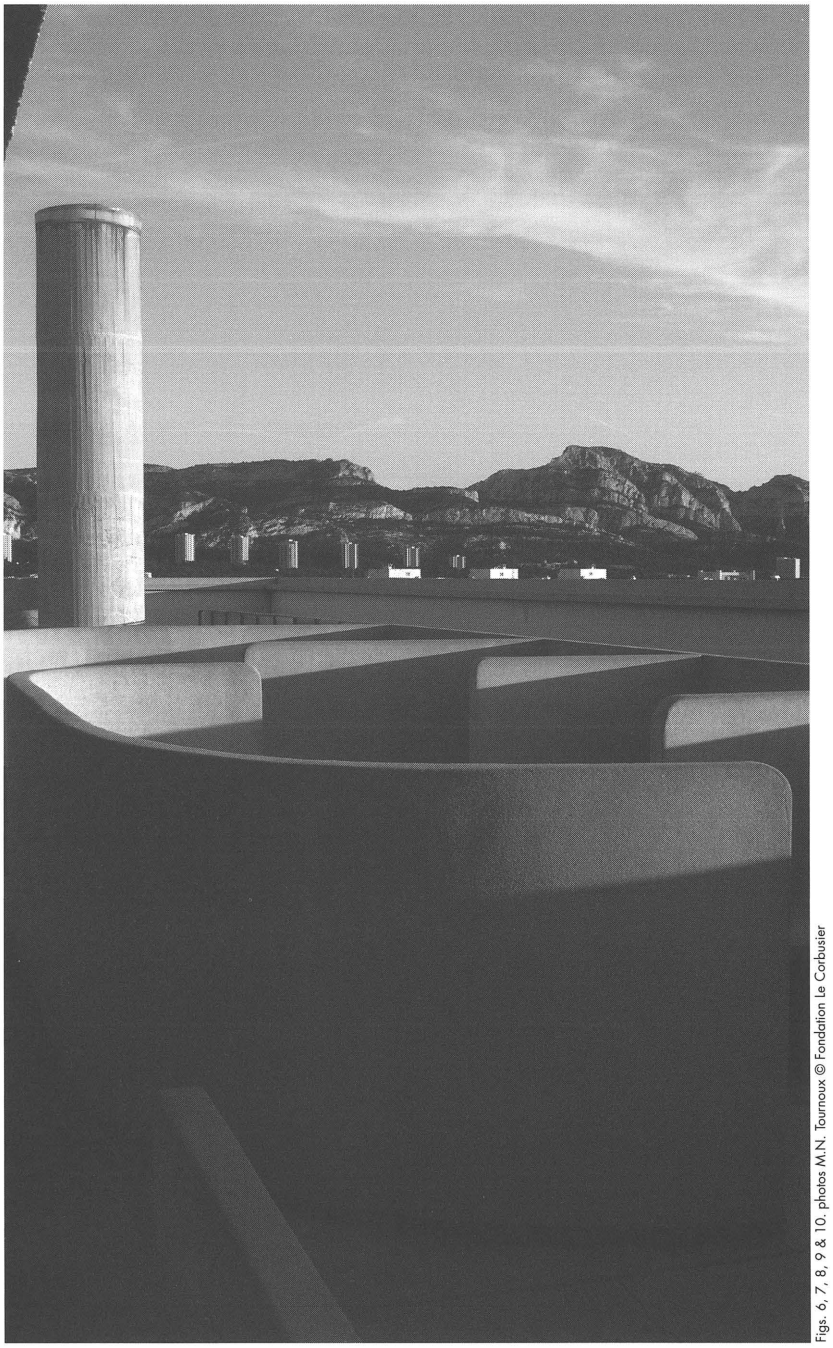
Fig. 5. **Le Corbusier**, *Weissenhof Siedlung*, Stuttgart (Germany), 1927.
Le Corbusier's Double House, one of his two contributions to the Weissenhof manifesto-exhibit
How should one appreciate Le Corbusier's work from the standpoint of modernity, and his influence on the art of building since the second half of the twentieth century? Beyond the history of styles and shapes, and beyond considerations on the relationship between the modern movement and industry, mechanization, or changes in the architect's profession, what would be the important criteria and values? How should one approach the question of giving heritage value to an object whose very nature was to break with tradition? How should one take into account its value as an example, model or manifesto? How should one analyze and distinguish elements that have had a deep impact on building sponsors and commissions, briefs, construction modes and building economy? How can one associate heritage and modernity, and show how heritage and modernity coexist without opposing each other?

Fig. 5. ***Le Corbusier***, Weissenhof Siedlung, *Stuttgart (Allemagne), 1927.*
La Maison double de Le Corbusier, une de ses deux contributions à cette exposition-manifeste
Comment apprécier l'œuvre de Le Corbusier à l'aune de la modernité et son influence sur la manière de « bien bastir » dans la seconde moitié du XX^e^ siècle et le début du XX^e^ ? Une fois dépassée l'histoire des styles et des formes, une fois le mouvement moderne considéré en relation avec l'industrie, la mécanisation, le changement de la profession d'architecte, quelles sont les critères et les valeurs à mettre en avant ? Comment envisager la patrimonialisation d'une œuvre dont la nature même repose sur la rupture ? Comment prendre en compte sa valeur d'exemple, de modèle et de manifeste ? Comment analyser et distinguer les éléments qui ont eu un impact profond sur la commande, les programmes, le mode constructif et l'économie du bâti ? Comment relier la patrimonialisation à la modernité et montrer comment patrimoine et modernité coexistent et ne s'opposent pas ?

what do we actually *mean* by the notion of heritage and the definition of heritage objects? Admittedly, we do understand that the original narrative of admiring wonder, as well as the narrative of a national history for people having or aspiring to have a state, is and will remain entirely legitimate. But doesn't the modern notion of heritage, and in particular of "common heritage of humanity," imply new concepts and, thus, new objects? Without re-examining in detail the arguments and concepts which guided the idea and ambition of a nomination of Le Corbusier's work on the World Heritage List, it is obvious that the proposal meant to question the nature of a World Heritage object itself, which can be formulated as follows: how can the notion of World Heritage be comprehensively addressed, given its scale and the developments of human civilizations? How is one to take stock of the facts and movements that have had such significance that world history cannot ignore them? In most cases, the fact is that only continuous or even discontinuous ensembles, including the links joining them, will be able to give an account of mankind's history or identity.

Let us consider, for instance, the historic facts of the discovery and colonization of the Americas, or the Mediterranean region's colonization by the medieval Arab-Muslim civilization: shouldn't we acknowledge that the Statue of Liberty in New York or the Umayyad Mosque in Damascus cannot alone represent, short of a considerable abstraction, the fact of civilization to which they are linked? Don't their heritage significance and value also proceed from the intangible links established with other objects which take part in the same historical production, whether or not they are located on the same land, and, for that matter, included or not on the List? The awareness of this link is the basis of a common cultural awareness, and this is, for us, the only worthwhile ambition for World Heritage.

Fig. 6. **Le Corbusier**, *Unité d'Habitation known as Cité Radieuse,* Marseilles (France), 1947–1952. Distant view from the terrace



Figs. 6, 7, 8, 9 & 10. photos M.N. Tournoux © Fondation Le Corbusier

Fig. 6. ***Le Corbusier***, Unité d'habitation dite Cité radieuse, *Marseille (France), 1947-1952. Vue lointaine depuis la terrasse*

If World Heritage remains the sum of state heritages and its List only the vast shared catalogue of 'national champions,' then it brings nothing more to mankind than a joint manifestation of separate narratives, in a vision where the realm of nations seems fixed and unalterable. But, concerning serial assets, taking into account the strength and essential nature of the intangible component of all heritage objects leads to considering the strength of the intangible link that brings together the various objects of the serial asset. This *link* is an integral factor of the asset itself and, fundamentally, the debate with Icomos lies in the *nature* of the link joining Le Corbusier's buildings included in the nomination dossier.

Is the issue only a question of numbers? Should one recognize real value to merely three

Fig. 7. **Le Corbusier**, *La Tourette Convent*, Éveux-sur-l'Arbresle (France), 1953. View of the landscape from the former refectory
Managing and preserving the surroundings of protected buildings is a major issue whatever the period involved. In the case of Le Corbusier buildings, distant views are such a crucial element of the layout that monitoring landscape is an especially complex question. Because, despite the Five Points theory, buildings have a direct relationship with immediate context, but above all because landcape is framed and is an integral part of the architectural composition seen from indoors.
At the Marseilles Unité d'Habitation, La Tourette Convent, as well as the Duval factory in Saint-Dié, the framing of distant views was very carefully worked out to make the best of them and enhance their beauty. Managing these views—that often spread over several towns—and the immediate surroundings is especially complex as it does not merely involve the surroundings of Historic Monuments, but also urban management at several scales.
The development process of a management plan for an inscription on the World Heritage List provides a major opportunity to associate all parties involved in the field and to implement the ad hoc legal rules that are available in the French legal corpus.

Fig. 7. ***Le Corbusier***, Couvent de La Tourette, *Éveux-sur-l'Arbresle (France), 1953. Vue du paysage depuis l'ancien réfectoire*
La gestion et la conservation des abords des édifices protégés est un enjeu majeur. Dans le cas des édifices de Le Corbusier, la gestion des vues lointaines est particulièrement complexe tant le paysage fait partie de l'architecture. À la fois parce que – quoi que prône la théorie des Cinq Points – les édifices sont en relation immédiate avec leur contexte, et surtout parce que le paysage est cadré et fait partie intégrante de la composition architecturale vue du dedans. À l'Unité d'habitation de Marseille, au Couvent de La Tourette, comme à l'usine Claude & Duval de Saint-Dié, les vues lointaines sont particulièrement travaillées, encadrées et mises en valeur. La capacité de gestion de ces vues – qui s'étendent souvent sur plusieurs communes – et des abords immédiats est d'autant plus compliquée qu'elle ne relève pas de la simple gestion des abords de Monuments historiques, mais de la gestion urbaine et de l'aménagement du territoire sur de grandes échelles. Le processus d'élaboration d'un plan de gestion au titre d'une inscription sur la Liste du Patrimoine mondial est une formidable opportunité pour fédérer sur le terrain les différentes parties prenantes et de mettre en place les dispositifs réglementaires ad hoc disponibles dans le corpus législatif français.

aux seuls « monuments » ayant valeur de commémoration symbolique. Plus exactement, ces monuments – ou objets patrimoniaux – peuvent recouvrir bien des formes de réalité. Cette évolution a notamment considéré que le contexte d'une œuvre ou d'un monument en était indissociable ; elle a aussi consacré l'importance des valeurs immatérielles, dont le support peut être dépourvu de qualités esthétiques ou techniques. Au terme actuel de cette évolution figure la récente Convention sur le patrimoine immatériel adoptée par l'Unesco.

Il n'est pas question de revisiter ici la notion théorique de patrimoine, mais d'examiner la question posée par l'Icomos : celle de l'irrecevabilité d'une identification patrimoniale fondée sur l'œuvre d'un homme. Au fondement de l'idée de patrimoine – c'est-à-dire de distinction volontaire, consciente et partagée d'un objet présent dans l'espace commun – est l'idée d'étonnement. Les « merveilles », mirabilia, *sont d'abord les choses qui surprennent le regard ; la surprise – ou l'étrangeté – est un moteur de l'identification resté puissant jusqu'à nos jours. Cependant, la modernité de la notion de patrimoine inventée au XIX^e siècle réside dans la volonté d'associer les monuments « admirables » à une rationalité et à un discours historiques. Ce fut, à cette époque, l'association des édifices et des styles architecturaux au récit national qui consolida la notion de patrimoine, en accompagnant la constitution ou l'affirmation des États-nations. Devenus ainsi les témoins de l'Histoire, les « monuments » sont à cette époque des édifices exceptionnels, en petit nombre, et dans cette sélection qui se veut rationnelle, et non émotionnelle, l'étrangeté de jadis est remplacée par la rareté, l'exemplarité ou la perfection du témoignage. Les chefs-d'œuvre reconnus de l'art et de l'architecture sont ainsi convoqués pour illustrer le génie national aux différentes époques de l'Histoire.*

Fig. 8. **Le Corbusier**, *Unité d'Habitation*, Marseilles (France), 1947–1952. Overall view of the waste management unit building
The Unité d'Habitation, in its extreme sophistication, included from the beginning a management system for the waste coming from refuse chutes and garbage grinders in sinks. The pavilion located very close to the main building is visually admirable, but also highly interesting from the technical point of view of waste management: it involves a system separating liquids and solids, and diverting them directly either towards the sewers or to the garbage dumpsters. The question may seem trivial, but it is far from minor, because it involves all at once the building's bookkeeping, preservation, restoration, and setting of standards. It is easy enough to specify which elements to preserve and restore in a building in order to ensure the shape's durability, but to what extent can uses be maintained, especially in the context of upgrading collective amenities involving not merely the condominium's sphere but also municipal management?

Fig. 8. ***Le Corbusier***, Unité d'habitation dite Cité radieuse, *Marseille (France), 1947-1952. Pavillon de gestion des déchets : vue d'ensemble*
L'Unité d'habitation, dans son extrême sophistication, comprenait dès l'origine un système de gestion des déchets provenant des broyeurs des éviers et des vide-ordures. Le pavillon situé aux abords immédiats de l'édifice principal est un commun d'une très grande qualité plastique, mais aussi d'un grand intérêt technique du point de vue de l'archéologie domestique et de la gestion des déchets : un système de transport par effet de chasse périodique, puis séparation des liquides et des solides, et enfin renvoi soit vers les égouts soit vers les bennes à ordures. Question semble-t-il triviale mais aujourd'hui loin d'être secondaire, car elle affronte la compatibilité technique, la conservation et la restauration, et la mise aux normes contemporaines. S'il est assez aisé de prescrire les éléments à conserver et à restaurer dans un bâti afin d'assurer la pérennité d'une forme, jusqu'à quel point peut-on maintenir des usages, dans un contexte de normalisation d'équipements collectifs qui dépasse la sphère de la copropriété et relève de la gestion publique ?

emblematic buildings that alone would be capable of bearing witness to Le Corbusier's genius through their architectural and esthetic qualities? It is this question that truly touches on the notion of oeuvre, and on the nominated asset's nature. If the authors of the proposal referred to Le Corbusier's work as a whole, and not just to a few individual buildings which he designed, it was because they referred to a thought process, a process which was born in one simultaneously historical and cultural moment and stayed in movement throughout his life. His thoughts were directed not merely towards creation (architectural, pictorial, literary...), but also and above all towards pondering and formulating answers in architecture and town planning, addressing problems facing mankind in the modern age, in particular problems raised by industrialization and the revolution in transportation. Naturally, Le Corbusier's thinking (many aspects of which can surely and sometimes severely be judged and criticized, but that isn't the issue) expressed itself in his built work, but not exclusively: his written and theoretical work, his tireless pedagogic and propagandist activity—the polemics that his work triggered—and his universalist ambitions were also major expressions of his thought. What, then, were the means through which Le Corbusier influenced the twentieth century? Was it through three surprising or especially consummate buildings? Or could it be the impact of his creative mind and theories, as shown by the latter's dissemination and reception by other architects, decision-makers or building sponsors in many countries? Or could it be through a series of constructions carried out with varying success, addressing different briefs, at different moments, in various conditions and in countries sometimes very far away from each other? It would be strange to consider that Le Corbusier's influence was due to barely two or three masterpieces, and only once these were built.

Modern architects throughout the world did not refer to them as prototypes, after drawing or studying them, like neoclassic architects drawing inspiration from the ruins of Greek or Roman monuments! During the first three decades of the twentieth century the modern movement gradually

Au début du XXI[e] siècle, cette conception des monuments est toujours présente mais elle a perdu son exclusivité. L'évolution du patrimoine montre une conscience de plus en plus aiguë de la complexité des objets culturels, dans lesquels l'immatériel a conquis une part décisive, quoique souvent peu remarquée en tant que telle. L'immatériel forme le sens et la valeur du matériel, sans lequel sans doute nous ne le regarderions pas. Quand l'approche monumentale a été élargie à des ensembles, quand le contexte des monuments – urbain, paysager ou mobilier – a été considéré comme digne de protection et de conservation, ont été objectivement inclus dans l'objet patrimonial les liens immatériels qui unissent les structures ou les formes qui le composent à d'autres structures et formes qui lui sont associées, et aux représentations qui les sous-tendent.

Par ailleurs, la pratique patrimoniale a accompagné le développement et la modernisation des sociétés humaines : le défi aujourd'hui est de mesurer à quel point le choix politique et culturel qui la sous-tend s'intègre dans les orientations dynamiques des sociétés contemporaines. Il est temps de considérer que les ressources et les moyens mis en œuvre pour la sauvegarde du patrimoine ne se limitent pas à la mise en valeur d'une mascotte ou d'une effigie, ou à la construction d'images identitaires d'une ville ou d'un État. Il serait de courte vue de nier le potentiel et les ressources du patrimoine, comme les travaux engagés par la communauté internationale et la Convention elle-même dans cette direction.

Qu'entendons-nous, aujourd'hui, par « objet patrimonial » ? Si nous concevons la légitimité des anciens discours – de l'étonnement admiratif au récit national des peuples –, la notion moderne de « patrimoine de l'humanité » n'implique-t-elle pas de nouveaux concepts, et donc de nouveaux objets ? Le dossier de proposition d'inscription de l'œuvre de Le Corbusier sur la Liste du Patrimoine mondial posait le problème de la nature même d'un objet du patrimoine de l'humanité : comment approcher pleinement, aujourd'hui, la notion de patrimoine mondial en ayant en vue la trajectoire des civilisations humaines à l'échelle mondiale ? Comment rendre compte de faits ou de mouvements que l'histoire du monde entier ne peut ignorer ?
Dans cette approche, seuls des ensembles – continus ou discontinus – et leurs liens immatériels sont susceptibles de rendre compte de l'identité ou de l'histoire humaine.

Fig. 9. **Le Corbusier**, *Saint-Dié Plant known as Usine Claude & Duval*, Saint-Dié-des-Vosges (France), 1946. View of the interior
The Usine Claude & Duval, rebuilt with the war damages funds, had to fulfill the requirements of an owner keen on ensuring optimal working conditions—daylight, space... Today, the factory still functions and, although still specialized in textile, it does not manufacture the same type of production. The preservation's issue is to maintain the fundamental characteristics and values that form the building's quality and heritage qualities while simultaneously allowing for the transformations required to modernizing a production site.

Fig. 9. **Le Corbusier**, Manufacture à Saint-Dié dite Usine Claude & Duval, *Saint-Dié-des-Vosges (France), 1946. Intérieur*
L'usine Claude & Duval, reconstruite sur les fonds des dommages de guerre, devait répondre aux exigences d'un propriétaire soucieux d'assurer des conditions de travail optimales – lumière du jour, espace... L'usine, toujours en activité, ne produit plus le même type d'articles mais des produits haut de gamme associés à son image historique et artistique. L'enjeu de la conservation est de maintenir les caractéristiques et les valeurs fondamentales qui font la qualité de l'édifice et son intérêt patrimonial, tout en permettant les transformations nécessaires à la pérennité économique et à la modernisation d'un site de production sans en perturber l'identité, qui concourt aussi à celle des produits.

built up a dynamic body of research and references, to which Le Corbusier belongs, and where he was prominent as an actor, producer of theories and discourses, teacher and ambitious organizer proclaiming the universality of his solutions, and finally as the creator, architect and artist who, for the first time in history, was summoned to produced projects throughout the world. It really is the sum total of this activity that influenced the modern world; it is this sum that we call "oeuvre."

To represent Le Corbusier's oeuvre on the World Heritage List we have chosen the best examples of his realizations, at different moments of his thought's development, at different moments of his capacity to build or act, on different architectural themes, and in different places of the planet. The project's team, and in particular Gilles Ragot, worked out a typological analysis of Le Corbusier's production, classifying his answers to major questions (studio-dwellings, individual houses, standardized housing, collective housing, sacred architecture, large-scale standard-type developments, town planning schemes) and selected the best examples in each category. Because the union of these realizations represents as a whole, and not by the addition of all its parts, a crucial contribution to the twentieth century world, we consider that it is as a whole that it is valuable. The word "oeuvre" is how we designate the intangible *link* that gathers these tangible objects, that gives them global and collective meaning, and which allows them to be considered together with their specificities and unique characters.

It is therefore very difficult for us to understand the Icomos experts' request to "focus attention . . . more on buildings . . . than on their architect." What does this request mean? Elsewhere, one reads that: "it is the asset rather than the architect that ought to express the exchange of ideas." But how can one separate constructions from their author? Human creations,

Fig. 10. **Le Corbusier**, *Saint-Dié Plant known as Usine Claude & Duval*, Saint-Dié-des-Vosges (France), 1946. Electric switch
A paradox of modern heritage is the mass-production and standardization of building materials. Bare brickwork, light work and joinery work, electrical systems and light fixtures, etc. were produced industrially and were standard products of the time. Today, the setting of standards and restoration call for solutions on a case-by-case basis, to allow for the continuity of uses while also answering security standards, especially if the buildings are to be open to the general public. Which major guidelines and directions ought to be followed? The rule of industrial standards or identical replication? Using handmade reproductions of Bakelite switches or a widespread model easily found on the market today? This is an issue for Le Corbusier buildings, be they private houses, museum-buildings or production/culture sites still in use, as for most modern movement buildings.

Fig. 10. ***Le Corbusier***, Manufacture à Saint-Dié dite Usine Claude & Duval, *Saint-Dié-des-Vosges (France), 1946. Interrupteur électrique*
L'une des caractéristiques de l'architecture moderne, et de l'œuvre de Le Corbusier en particulier, tient à l'utilisation de matériaux produits en série et à la promotion de la standardisation. Gros œuvre, second œuvre et éléments de menuiserie, appliques électriques, systèmes électriques, etc. ont été produits industriellement et relèvent de produits standards de l'époque. Le défi de la conservation pour ce type de biens relève de la gestion d'un paradoxe. Aujourd'hui, la mise aux normes et la restauration nécessitent des solutions au cas par cas pour permettre la continuité de l'utilisation tout en garantissant les normes de sécurité, surtout si les édifices sont ouverts au public. Quel esprit respecter ? Le principe du standard industriel ou la réfection à l'identique ? Reproduire à la main des interrupteurs en bakélite ? Choisir un modèle courant et accessible dans le commerce ? La question se pose pour les édifices de Le Corbusier – qu'il s'agisse des logements privés, des édifices musées ou des sites toujours en usage – comme pour la plupart des constructions du mouvement moderne.

monuments or constructions, trivial or immense, always owe their existence to an author, well-known or unknown. They are, moreover, achieved in a given cultural and professional context which, admittedly, is for most productions of the past centuries somewhat or sometimes even completely unknown. But in the present case, the context is that of twentieth century architectural practice: within that framework, an architect 'author' was legally responsible for the realizations carried out in the name of a studio, and of its collaborators whose work he led and supervised.

Surely, when identifying an asset as heritage, it is not possible to disregard its author if he is known, especially if he is a contemporary figure whose ideas and actions can still be interpreted in their cultural context, a context which is by definition more accessible to scientific knowledge than that of past centuries. This is where

Considérons la réalité historique de la découverte et de la colonisation moderne des Amériques, ou la colonisation de l'espace méditerranéen par les Arabo-musulmans au Moyen Âge : à elles seules, la statue de la Liberté à l'entrée du port de New York ou la grande mosquée des Omeyyades de Damas ne peuvent-elle prétendre représenter, à moins d'une abstraction considérable, le fait de civilisation auxquelles elles sont liées ? Leur sens et leur valeur patrimoniale mondiale ne viennent-ils pas aussi du lien immatériel qui s'établit avec d'autres biens, participant de la même production historique, situés ou non sur le même territoire, et inscrits ou non sur la Liste ? La conscience de ce lien est l'ébauche d'une conscience culturelle commune enfin partagée, et c'est selon nous la seule ambition qui vaille pour le patrimoine mondial car une liste qui ne serait que le vaste catalogue collectif des « champions nationaux » n'apporterait rien de plus à l'humanité que la manifestation conjointe de récits séparés, dans une vision où les horizons nationaux apparaissent figés et indépassables. La prise en compte de la force et de l'essentialité de la composante immatérielle de tout objet patrimonial mène – en ce qui concerne un bien en série – à la force du lien *immatériel qui unit les différents objets de la série, facteur constituant du bien lui-même. Le débat sur la position de l'Icomos porte en effet sur la* nature *du lien qui unit les édifices proposés dans le dossier d'inscription de l'œuvre de Le Corbusier.*

S'agit-il seulement d'une question de nombre et doit-on n'accorder de vraie valeur qu'à trois édifices emblématiques qui seraient seuls capables de témoigner du génie de Le Corbusier par leurs qualités architecturales et plastiques ? C'est ici que l'on touche à la notion d'œuvre et à la nature même du bien proposé pour l'inscription. Si les États auteurs de la proposition ont présenté l'œuvre de Le Corbusier – et non quelques édifices singuliers –, c'est parce qu'ils se sont référés à une pensée tournée non seulement vers la création mais aussi vers la réflexion et l'élaboration de réponses architecturales et urbaines aux problèmes que devait affronter l'humanité à l'âge moderne, en particulier sous l'effet de l'industrialisation et de la révolution des transports. L'œuvre écrite et théorique de Le Corbusier, son inlassable activité pédagogique et propagandiste, les polémiques auxquelles il donne lieu, son ambition universaliste sont les expressions de sa pensée.

N'est-ce pas par l'impact de son esprit créateur et de ses théories que Le Corbusier a fondamentalement influencé le XX^e siècle ? Par leur diffusion et leur réception par d'autres architectes, décideurs ou commanditaires, par une série de constructions opérées avec plus ou moins de succès dans des conditions variables, sur des programmes et à des moments différents, dans des pays parfois très éloignés ? Les architectes modernes du monde entier ne se sont pas référés à ses créations comme à des prototypes, après les avoir relevés ou étudiés comme pouvaient le faire les architectes néo-classiciques cherchant leur inspiration dans les vestiges des monuments antiques romains ou grecs ! Le mouvement moderne constitue, dans les trois premières décennies du XX^e siècle, un ensemble de recherches et de références dans lequel Le Corbusier s'inscrit, et où il occupe une place privilégiée en tant qu'acteur, producteur de théories et de discours, en tant que pédagogue et organisateur ambitieux, proclamant l'universalité de ses solutions, et en tant que créateur effectif, architecte et artiste appelé pour la première fois dans l'histoire de l'humanité à produire des projets sur l'ensemble du globe.

Ces activités ont influencé le monde moderne, et c'est leur somme que nous nommons « œuvre ». Pour la représenter sur la Liste du Patrimoine mondial, les meilleurs exemples des réalisations de Le Corbusier ont été choisis, à différents moments de l'élaboration de sa pensée et de sa capacité à construire, sur différents thèmes, différents types architecturaux, et en différents lieux. L'équipe du projet, en particulier Gilles Ragot, a produit une analyse typologique de la production de Le Corbusier, sériant les réponses aux questions majeures (la résidence-atelier, la maison individuelle, l'habitat standardisé, l'habitat collectif, l'architecture sacrée, les grands programmes standard type, l'urbanisme) et a sélectionné les meilleurs exemples de chaque catégorie. Parce que la réunion de ces réalisations représente – dans son ensemble et non par l'addition de ses parties – une contribution essentielle au monde du XX^e siècle, nous considérons qu'elle a une valeur propre. Nous nommons « œuvre de Le Corbusier » le lien immatériel qui réunit ces objets matériels, qui leur donne un sens global et collectif, et qui permet de les considérer ensemble avec leurs spécificités et leur caractère unique.

La demande formulée par les experts de l'Icomos de « concentrer l'attention (…) sur les bâtiments (…) plutôt que sur leur architecte » est difficile à comprendre. Ailleurs il est écrit : « c'est le bien qui doit manifester l'échange d'idées plutôt que l'architecte. » Comment dissocier les constructions de leur auteur ? Toute création humaine, tout monument ou construction quelle qu'elle soit, dérisoire ou immense, a un auteur, connu ou inconnu ; elle est en outre élaborée dans un contexte culturel et professionnel donné, qui nous est pour la plupart des productions des siècles passés mal connu, voire ignoré.
Dans le cas présent, il s'agit de la pratique architecturale du XX^e siècle : celle d'un architecte « auteur », responsable légalement d'une réalisation au nom d'une agence, et des collaborateurs et architectes d'exécution dont il a dirigé et validé le travail. On ne peut, en identifiant un bien comme patrimoine, le dépouiller de son

knowledge concerning the author lies; this understanding, if present, contributes to the definition and representation of the built object, in the same way as, for instance, its use, if it continues. It cannot be ignored. The younger the object, the more its creator's mark is evident, for objective reasons—less time has elapsed—and also because our society cultivates and cherishes its memories of the past, even if it is recent. Icomos suggests that it would be worrisome to treat modern objects and older objects in a similar way. But if we did know the ideas, the squabbles with their sponsors and the social and economic powers that carried the creators of Gothic architecture, Khmer or Inca monuments, with the same wealth of details as we do for the modern movement protagonists, wouldn't we want to expand the representation of these monuments and the value we grant them? Furthermore, wouldn't an evenhanded treatment of each period be a treatment striving to understand and penetrate a period in the most intelligible way possible, using the knowledge which the work of history provides? It is rather surprising to hear Icomos declare that the nomination proposal rests on foundations which would be suitable to write a page of the history of architecture, but not appropriate to define world heritage? Does not a heritage object's value proceed from the operations of science?

The methodology and conceptual tenets that underlie the nomination dossier of "Le Corbusier's architectural and urban work" were built on the most scientific premises possible, in order to submit a heritage object that meets the standards developed during thirty years of using the World Heritage Convention; to capture a decisive moment of socio-cultural history; and to reflect in concrete terms a crucial achievement of the twentieth century. The series submitted is an ensemble of assets chosen not like the pearls in a necklace, that can be appreciated individually, but like an organic and significant entity. It is not, incidentally, the first series proposed, nor is it the first set conceived around the work of an architect to be proposed. In two successive stages, Spain submitted Antoni Gaudí's work; on inscription of the work on the List, the Committee emphasized the importance of safeguarding Gaudí's work as a whole (in 1984!). After over thirty years of listing assets increasingly rich and representative of mankind's cultural diversity, Le Corbusier's work as an ensemble remains, for us, of outstanding universal value in its global response to the challenges of modernity.

The opinions expressed in this article do not necessarily reflect those of Unesco and the French Ministry of Culture and Communication and therefore do not involve the Organization and the Ministry.

Translated by Isabelle Kite.

OLIVIER POISSON *is an architect and art historian with a working career at the French Ministry of Culture (Historic Monuments Department). He is currently assigned to the General Inspection of Architecture and Heritage, in charge of several French regions and the monitoring of the World Heritage dossiers.*

MARIE-NOËL TOURNOUX *is an art and architecture historian. She has carried out research on twentieth century religious architecture and holiday resorts for the French Ministry of Culture. Since 2002 she has been working for Unesco's World Heritage Center, within the framework of a French program of cooperation and technical assistance to promote and protect heritage (France-Unesco Cooperation Agreement).*

THE ARCHITECTURAL AND URBAN WORK OF LE CORBUSIER

Transnational Series Proposal for Inscription on the World Heritage List

Proposed criteria: (i) (ii) (vi)

Artist's Studio-Houses
1926, Guiette House, Antwerp, Belgium
1926, Cook House, Boulogne-sur-Seine, France

Houses
1912, Jeanneret-Perret House, La Chaux-de-Fonds, Switzerland
1916, Schwob House, La Chaux-de-Fonds, Switzerland
1923, La Roche & Jeanneret Houses, Paris, France
1923, Small House on the Léman lakeside, Corseaux, Switzerland
1928, Savoye Villa & caretaker's CIA-type house, Poissy, France
1949, Curutchet House, La Plata, Argentina
1951, Jaoul House, Neuilly-sur-Seine, France

Standardized Housing
1924, Cité Frugès, Pessac, France
1927, Houses at the Weissenhof-Siedlung, Stuttgart, Germany
1951, Le Corbusier's Cabanon, Roquebrune Cap-Martin, France

Collective Housing
1929, Salvation Army Shelter Building, Paris, France
1930, Clarté Building, Geneva, Switzerland
1930, Swiss Pavilion at the Cité Universitaire, Paris, France
1931, Building at the Porte Molitor – LC's Apartment, Paris, France
1945, Unité d'Habitation, Marseilles, France

Sacred Architecture
1950, Notre-Dame-du-Haut Chapel, Ronchamp, France
1953, Sainte-Marie-de-la-Tourette Convent, Éveux-sur-l'Arbresle, France

Large Standard-Type Developments
1946, Factory in Saint-Dié, Saint-Dié, France
1959, Museum of Western Art, Tokyo, Japan

Town Planning
1953–1965, Firminy-Vert Site, Firminy, France

auteur s'il est connu, encore davantage s'il s'agit d'un personnage contemporain dont les pensées et les actions peuvent encore être replacées dans leur contexte culturel. La connaissance de l'homme est présente, elle concourt à la définition et à la représentation de l'objet construit qui est son œuvre, de la même façon que son usage quand il subsiste. Plus un objet est récent, plus il porte cette marque, à la fois pour des raisons objectives – moins de temps s'est écoulé – et parce que notre société cultive sa mémoire, même récente.
L'Icomos suggère qu'il serait inquiétant de ne pas vouloir traiter les objets modernes différemment des objets anciens. Si nous connaissions avec autant de précision les idées des créateurs des architectures gothique, inca ou khmer, leurs démêlés avec les commanditaires, les forces sociales et économiques qui les ont portées, la représentation de ces monuments et leur valeur à nos yeux n'en seraient-elles pas nourries ? Traiter chaque époque de la même façon, n'est-ce pas d'abord chercher à les pénétrer de la manière la plus intelligible possible, à la mesure des connaissances que nous procure le travail de l'histoire ? Il est assez surprenant de voir encore l'Icomos déclarer que l'élaboration de la proposition d'inscription repose sur des bases qui seraient valables pour écrire une page de l'histoire de l'architecture, et non pour définir un patrimoine mondial. La valeur de l'objet patrimonial ne serait donc pas construite par les opérations de la science ?

La méthodologie et les principes conceptuels qui sous-tendent le dossier d'inscription de « l'œuvre architecturale et urbaine de Le Corbusier » ont été élaborés sur une base la plus scientifique possible, afin de proposer un objet patrimonial qui s'insère dans trente ans de pratique de la Convention du Patrimoine mondial, un objet qui cerne au mieux, dans sa réalité tangible, un moment fondamental de l'histoire socioculturelle, un objet qui reflète concrètement un achèvement essentiel du XX^e^ siècle. La série proposée est un ensemble de biens choisis comme une unité organique et signifiante. Ce n'est pas le premier bien en série proposé, ce n'est pas même le premier bien conçu autour de l'œuvre d'un architecte : en deux phases successives, l'Espagne avait proposé l'œuvre d'Antoni Gaudí, le Comité soulignant d'ailleurs lors de la première inscription (en 1984 !) l'importance de la sauvegarde de l'« ensemble » de son œuvre.
Au terme de plus de trente ans d'inscriptions de biens toujours plus riches et représentatifs de la diversité culturelle humaine sur la Liste du Patrimoine mondial, l'œuvre de Le Corbusier, en tant que réponse globale aux défis de la modernité, nous paraît toujours, dans son ensemble et comme telle, posséder une valeur universelle exceptionnelle.

Les opinions exprimées dans cet article ne reflètent pas nécessairement celles de l'Unesco et du ministère français de la Culture et de la Communication, et ne sauraient par conséquent engager l'organisation ou le ministère.

OLIVIER POISSON *est architecte et historien de l'art et travaille au Service des Monuments historiques du ministère de la Culture français. Il est actuellement affecté à l'inspection générale de l'Architecture et du Patrimoine, où il est chargé de plusieurs régions françaises et du suivi des dossiers « Patrimoine mondial ».*

MARIE-NOËL TOURNOUX *est historienne de l'art et de l'architecture. Elle a mené des recherches appliquées sur l'architecture religieuse du XX^e^ siècle et sur l'architecture de la villégiature pour le ministère de la Culture français. Depuis 2002, elle travaille pour le Centre du patrimoine mondial de l'Unesco, dans le cadre d'un programme français de coopération et d'assistance technique pour la valorisation du patrimoine (Convention France-Unesco pour le patrimoine).*

L'ŒUVRE ARCHITECTURALE ET URBAINE DE LE CORBUSIER

Proposition d'inscription en série transnationale au Patrimoine mondial

Critères proposés : (i) (ii) (vi)

La résidence atelier
1926, Maison Guiette, Anvers, Belgique
1926, Maison Cook, Boulogne-sur-Seine, France

La maison individuelle
1912, Maison Jeanneret-Perret, La Chaux-de-Fonds, Suisse
1916, Maison Schwob, La Chaux-de-Fonds, Suisse
1923, Maisons La Roche & Jeanneret, Paris, France
1923, Petite villa au bord du lac Léman, Corseaux, Suisse
1928, Villa Savoye & maison du gardien type CIAM, Poissy, France
1949, Maison Curutchet, La Plata, Argentine
1951, Maison Jaoul, Neuilly-sur-Seine, France

L'habitat standardisé
1924, Cité Frugès, Pessac, France
1927, Maisons du Weissenhof-Siedlung, Stuttgart, Allemagne
1951, Cabanon de Le Corbusier, Roquebrune Cap-Martin, France

L'habitat collectif
1929, Cité de refuge de l'Armée du Salut, Paris, France
1930, Immeuble Clarté, Genève, Suisse
1930, Pavillon suisse à la Cité universitaire, Paris, France
1931, Immeuble locatif à la Porte Molitor – Appartement LC, Paris, France
1945, Unité d'habitation, Marseille, France

L'architecture sacrée
1950, Chapelle Notre-Dame-du-Haut, Ronchamp, France
1953, Couvent Sainte-Marie-de-la-Tourette, Éveux-sur-l'Arbresle, France

Les grands programmes standards type
1946, Manufacture à Saint-Dié, Saint-Dié, France
1959, Musée d'art occidental, Tokyo, Japon

Urbanisme
1953-1965, Site de Firminy-Vert, Firminy, France

CONTRIBUTION

Shanghai
Modernity and the YWCA

In the 1930s, when the Western world was plunged into economic depression, Shanghai boomed. Between 1930 and 1933 the foreign population doubled, from 36,000 to 73,000. Many adventurous single women arrived, including Helen Foster—who later married Edgar Snow—and journalist Emily Hahn who wrote for the *New Yorker*. They joined Shanghai's eclectic mix of women which included *taitais*, revolutionaries such as Agnes Smedley and Louisa Strong, Russian and Jewish refugees and the women of the YWCA.

ANNE **WARR**

Many shared rooms in the modern apartment blocks springing up in the foreign concessions to house the influx of workers. Apartment buildings such as the Astrid, Hamilton House and Dubail provided women with security, anonymity, convenience and independence. The art deco Astrid offered a choice of seventy apartments over seven floors, with seven different floor plans. The 'bachelor apartment' was popular with single women and contained a bed sitting room with separate kitchen, bathroom and a small enclosed balcony facing south—ideal for hanging washing *(fig. 1)*.

American activist Agnes Smedley arrived in Shanghai in 1929 at the age of 36 as the China correspondent for the *Frankfurter Zeitung*. She soon became friendly with Soong Ching-ling and together they formed the League of Civil Rights to publicize to the outside world the absence of civil liberties under Chiang Kai-shek. Becoming subject to close surveillance and constant harassment by the Kuomingtang and foreign police in Shanghai, Smedley out-maneuvered her assailants with the help of assistants posted at the entrance to her apartment in the Dubail Building.

Eleanor Hinder, Australian reformer and a University of Sydney graduate, arrived in Shanghai in 1926 at the age of 33 to work for the YWCA (Young Women's Christian Association), developing its new industrial department. She worked towards improving working conditions for women and child factory workers. During this time she met Viola Smith, US assistant trade commissioner in China and secretary of the joint committee of Shanghai Women's Organizations. The pair became lifelong friends, sharing an apartment in Hamilton House near the Bund before being forced to flee Shanghai in 1941.

The YWCA was one of the strongest reform groups in China in the early twentieth century. Founded in London in 1875, the YWCA was introduced into China in 1890 and Shanghai by 1908. Unlike other missionary groups, the YWCA's primary role was to educate rather than proselytize. By 1916, YWCAs in China were offering literacy classes and programs stressing disease prevention and child welfare along with courses in sewing, cooking, and Bible study.
By the time China held its first national convention in 1923, the YWCA was numerically the largest women's association in China, and geographically the most widespread. This was where foreign radicals such as Maude Russell, Eleanor Hinder, and Talitha Gerlach came to work, as well as a growing breed of revolutionary Chinese women such as Cora Deng

who went on to become the first Chinese leader of the YWCA after 1949.
In 1930 Hinder was appointed international education officer for China YWCA, and wrote articles for newspapers about working conditions. Her role included supervising the construction of new premises for the YWCA on Yuanmingyuan Road behind the British consulate. She reported to a YWCA building committee under the chairmanship of Wei-tsung New Hsia (Mrs. C.L. Hsia), and liaised closely with architect Poy Gum Lee. Born and educated in New York city, Lee had arrived in Shanghai in 1923 to work for the YMCA (Young Men's Christian Association), one of his first buildings being the Chinese YMCA premises on Tibet Road (1931), designed in an eclectic style using a functional western body topped with a traditional Chinese roof.
The building committee of the YWCA, however, preferred a totally modern structure incorporating a more discrete overlay of Chinese ornament.

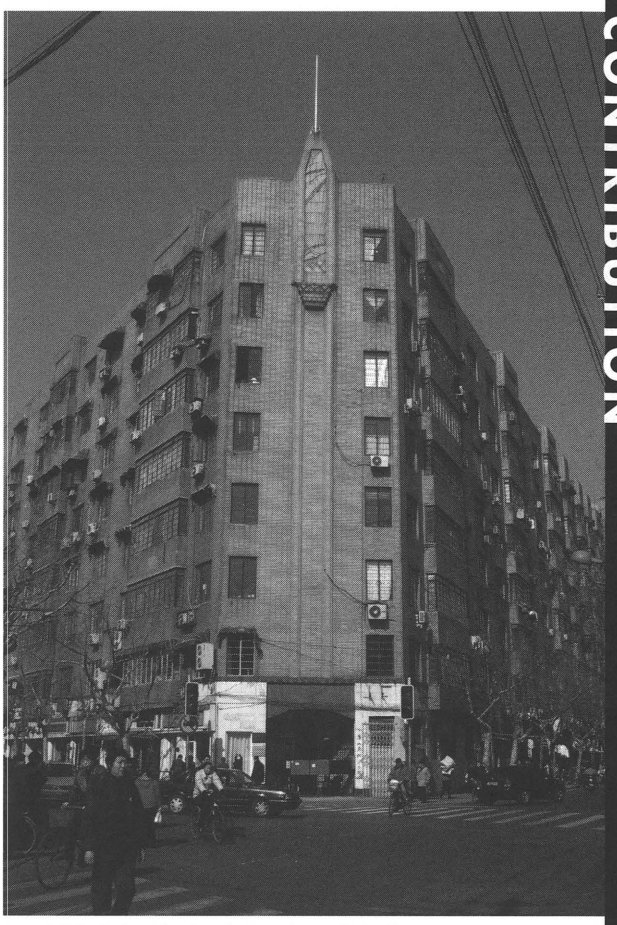
Completed in 1932, the eight-story YWCA building, with a later ninth floor, has a U-shaped courtyard facing west. Above the fifth floor, the building steps back, reducing the building bulk while providing a functional roof terrace.
The concrete-frame structure is rhythmically divided by vertical brick panels offset by rendered spandrel panels featuring Chinese art deco designs. The international 'Y' motif is woven within the Chinese patterns of the carved granite door case. The ceiling of the entrance foyer features Chinese seals in traditional red, green and gold reflected in a similarly colored terrazzo floor. On the top floor, services and meetings were held in a "beautiful room with a parquet floor and a Chinese traditional painted-beam ceiling." (Hinder papers, Mitchell Library, Sydney)

The building survives today, and is protected as one of Shanghai's "municipally protected structures." It is currently empty, awaiting a program for adaptive re-use.

THE ASTRID

Corner Nanchang Road
and Maoming Road
Completed 1932
Architect W. Livin

The Astrid Apartments were designed in the art deco style, the latest architectural offering to come to Shanghai from the United States.
The two accommodation wings boldly come together in a strong rectangular form facing west across the junction of the two streets *(fig. 2)*.
The façade is clad in alternating colored bands of ceramic tiles (supplied by the American Cathay Ceramics Company).
The culmination of the corner entrance façade is a shield bearing an abstract sunburst pattern and supporting a flagpole—quintessential art deco.
Other sunburst panels are located at the top of the eastern bays along Nanchang Road *(fig. 3)* and in terracotta panels above all four main entrances.
The sunburst panels glow in the reflected rays of the western sun.

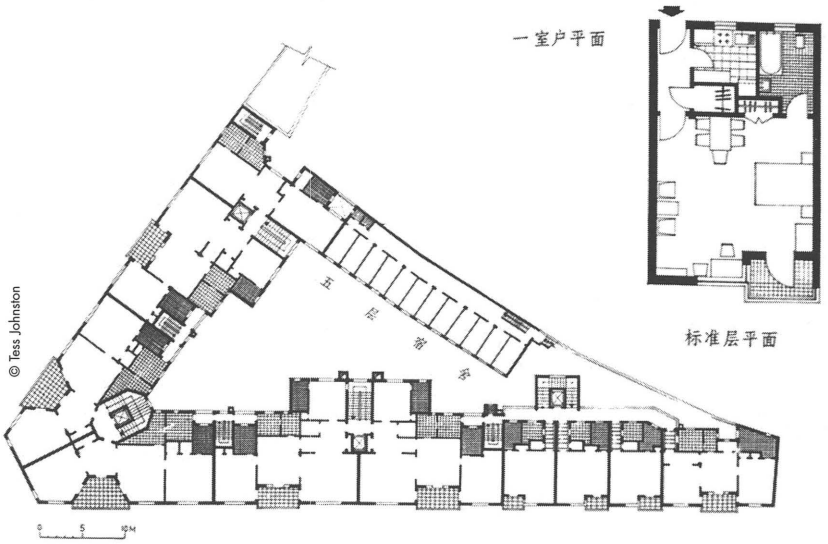


© Anne Warr

Fig. 2. **W. Livin**, *The Astrid*, Shanghai, 1932. Elevation on corner of Maoming and Nanchang Roads Shanghai

© Anne Warr

Fig. 3. **W. Livin**, *The Astrid*, Shanghai, 1932. Sunburst panels



© Tess Johnston

Fig. 1. **W. Livin**, *The Astrid*, Shanghai, 1932. Floor plan and detail of bachelor apartment

HAMILTON HOUSE

Corner Jiangxi Road and Fuzhou Road
Completed 1933
Architects Palmer and Turner

The house is located directly across from its twin, the Metropole Hotel, both buildings being essentially mirror reverse images of each other. Both were finished with granite facing to first floor and artificial stone above. Interior partitions were of 'aerocrete,' a new product of aerated concrete brick made of coal ash from power plants located in Henan province. Both are 14 stories high, have an art deco stepped massing to the façade and Venetian arcaded openings to the recessed central bay.
The massed stepping toward the top of Hamilton House allowed for roof gardens off the New York style 'penthouse' suites.
In the recently restored foyer to Hamilton House, a 1940s directory board still lists Smith, A. Viola, as residing in apartment 1001.

Fig. 4. **Palmer & Turner**, *Hamilton House*, Shanghai, 1933. Elevation

YWCA

133 Yuanmingyuan Road
Completed 1932
Architect Poy Gum Lee (Li Jinpei)

Fig. 5. **Poy Gum Lee (Li Jinpei)**, *YWCA*, Shanghai, 1932. Chinese decorations to the façade

Fig. 6. **Poy Gum Lee (Li Jinpei)**, *YWCA*, Shanghai, 1932. Main façade

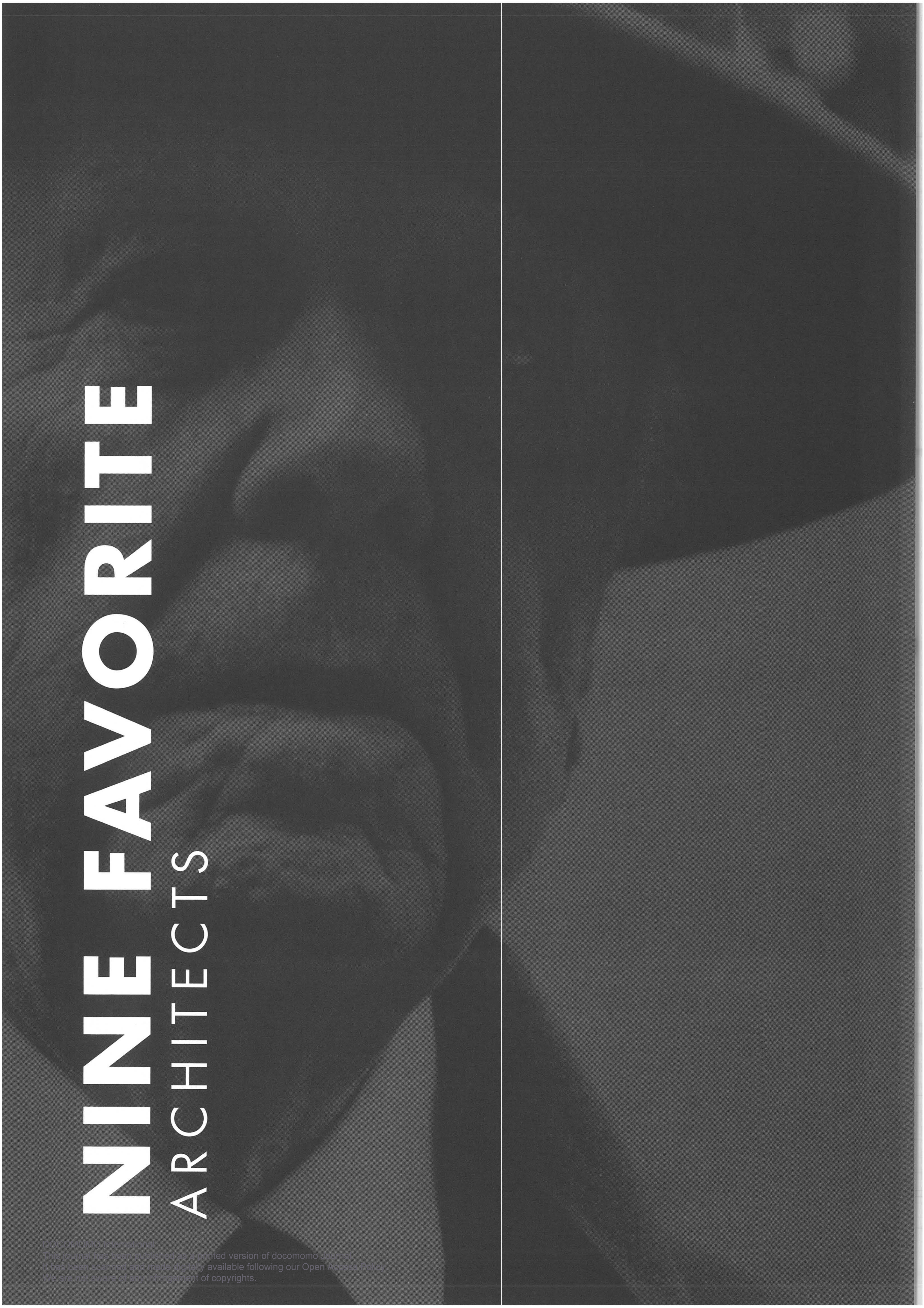
Fig. 7. **Poy Gum Lee (Li Jinpei)**, *YWCA*, Shanghai, 1932. Chinese decorations to ceiling of the foyer

Fig. 8. **Poy Gum Lee (Li Jinpei)**, *YWCA*, Shanghai, 1932. Stone door-case to the building showing international 'Y' symbol intertwined with Chinese ornament

ANNE WARR *is an architect and heritage conservation specialist, a field in which she worked for a number of years in Sydney, Australia. Since 2003, she has been living in Shanghai where she has written articles for local and international magazines about the city and the* Architecture Guide to Shanghai *(San Francisco: Watermark, 2007), taught Western architecture at Tongji University and started a tour guiding business (www.walkshanghai.com). She is also one of the founding members of Explore Shanghai Heritage, a volunteer group producing walking tour brochures of little known areas of Shanghai. Anne and her partner, Tim Schwager, run the Shanghai Office of the Australian architectural firm AJ+C (www.architectsajc.com.cn).*

BIBLIOGRAPHY

HIBBARD, PETER. *The Bund Shanghai. China Faces West.* Hong Kong: Odyssey, 2007.
DENISON, EDWARD AND GUANG YU REN. *Building Shanghai. The Story of China's Gateway* Wiley-Academy, 2006.
WARR, ANNE. *Shanghai Architecture.* San Francisco: Watermark, 2007.



Mise au Point[1] for **Le Corbusier**'s Baghdad Stadium

MINA **MAREFAT**

On July 13, 1958 a radio telegram informed Le Corbusier that his design for an Olympic stadium and sports complex for Baghdad was accepted as submitted, with construction to commence before the end of the year.[2]

MINA MAREFAT REVIENT ICI SUR UNE ŒUVRE LONGTEMPS CONTROVERSÉE DE LE CORBUSIER : LE STADE DE BAGDAD. CE DERNIER A VU EN EFFET SA PARENTÉ DISCUTÉE, BEAUCOUP NE LE CONSIDÉRANT PAS COMME L'ŒUVRE DU MAÎTRE. LE STADE A DONC LONGTEMPS ÉTÉ OUBLIÉ DES LISTES DES CONSTRUCTIONS DE LE CORBUSIER, ET CE N'EST QU'EN 2003, AVEC LA GUERRE EN IRAK, QU'IL EST SORTI DE SON SILENCE. MINA MAREFAT RELATE ICI LES RAISONS DE CETTE INDIFFÉRENCE AU TRAVERS DE L'ANALYSE DU PROJET – DE LA CONCEPTION DU STADE À SA RÉALISATION –, CONSTRUCTION MYSTÉRIEUSE DONT LA GENÈSE EST AUSSI UNE ILLUSTRATION DU FONCTIONNEMENT DE L'ATELIER DE LA RUE DE SÈVRES DANS LA SECONDE MOITIÉ DES ANNÉES 1950.

ON JULY 14, Iraq's 23 year-old King Faisal and his entourage were assassinated in a military coup led by General Kareem Kassem who declared himself President of the Republic of Iraq.[3] For the next seven years, Le Corbusier pursued the project despite practical difficulties of communication, political turmoil, and multiple site changes. The project lived on after Le Corbusier passed away in 1965, and the gymnasium, a fraction of his plan, was completed in 1980. The City of Sport designed by Le Corbusier for Baghdad is the focus of my current research; this brief report covers the first years, 1955–1958 *(fig. 1)*.[4]

LE CORBUSIER was the first of five renowned architects invited in the 1950s by Iraq's Development Board to build in a modernizing Baghdad.[5] The newly oil-rich Iraq selected him before anyone else owing to his mythical status as the world's premier modern architect. Only three of the five commissioned projects were built: Walter Gropius's Baghdad University,[6] Gio Ponti's Development Board Headquarters, and Le Corbusier's Gymnasium. The new military republic shelved for good the opera house-anchored cultural center and the Post and Telegraph building by Frank Lloyd Wright and a museum by Alvar Aalto.[7]

BAGHDAD AMNESIA

As Le Corbusier continues to command robust scholarly attention, new publications on his work appear regularly; a number of projects Le Corbusier designed in his final years, some built after his death, are published and very well received, securing a solid place in his oeuvre.[8] But surprisingly the Baghdad work has received very limited scholarly attention.[9] It is not listed among his works in the multi-volume *Œuvre Complète* nor does it appear in the 1987 *Le Corbusier Encyclopedia*, the exhibition catalogue for the Centre Pompidou centenary of his birth;[10] it was absent from a 2008–2009 traveling retrospective exhibition.[11] It did, however, receive plenty of publicity during Le Corbusier's lifetime, including by the architect himself.[12] In a 1961 letter to Gio Ponti he emphasized the beauty of his Baghdad drawings as he discussed his own overview of current work published, such as *L'Atelier de la Recherche Patiente* in 1960.[13] The book featured a large image of the Baghdad project and, on the final page, a photograph of Corbu in his office with the Baghdad plan clearly visible on the

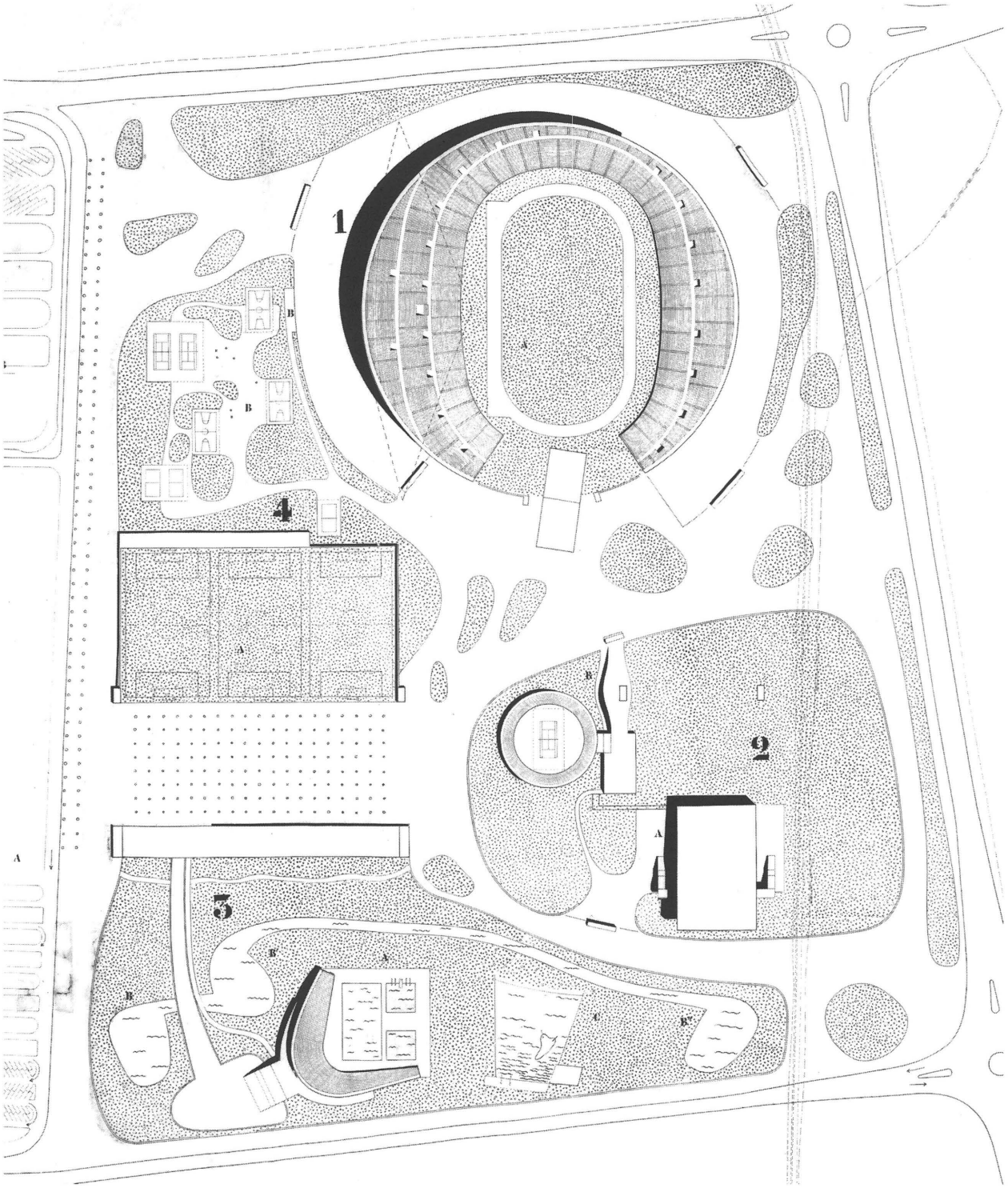
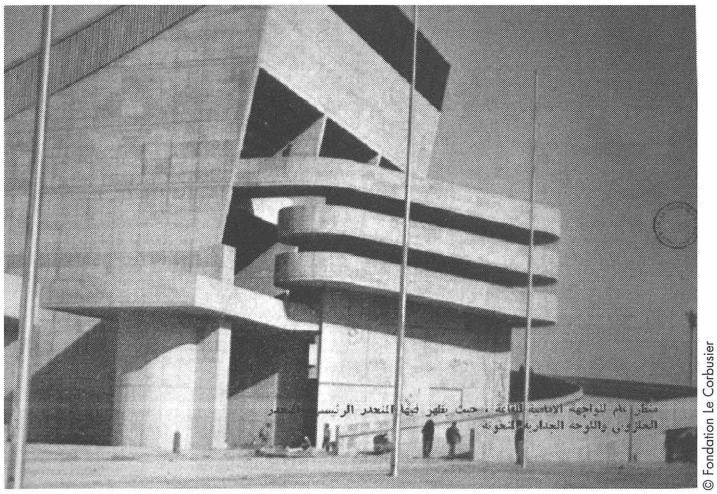


Fig. 1. Le Corbusier's Baghdad Olympic Stadium 5568. "Implantation vue d'avion." Scale 1:1000; dated June 5, 1958; draftsman: Tobito; signed: Le Corbusier. A bird's eye view of the site plan and landscaping of the five components of the City of Sport envisaged by Le Corbusier when he sent drawings to Baghdad in June 1958. The plans were approved by Iraq's Development Board on July 13, 1958, just one day before a military coup overthrew the Hashemite kingdom (FLC BAG 420)

wall behind him.[14] The absence of the Baghdad project from later reviews of his work may be related to doubts about his authorship that continued for decades after his death.[15]

THE STADIUM actually constructed in Baghdad was not built to Le Corbusier's design.[16] And certainly, by the time of its completion in 1980, it represented only a fraction of Le Corbusier's overall plan, with important features omitted or left for an indefinite future.[17] Owing to this, Corbu's death, and the fact that a good part of architectural design of the stadium complex occurred outside his rue de Sèvres office, there may well have been a desire to relinquish ownership of what could have been perceived as a bastardized project. Today, only a few involved associates and employees are alive and the history of the project remains unclear. As Rémi Baudouï puts it, scholarly neglect could stem from "an



© Fondation Le Corbusier

Fig. 2. Le Corbusier's Baghdad Gymnasium building. When the gymnasium opened in 1980, this photo featured on a propaganda booklet highlighting the design features of the newly named Saddam Hussein Gymnasium

amnesiac logic" that simply mirrors the way many close to Corbu and interested in his legacy kept the project at arm's length *(fig. 2)*.[18]

THE DESTRUCTION in Baghdad since the beginning of the Iraq war in 2003 has, however, returned attention to the city. Recent scholarship, including a small 2008–2009 exhibition at London's Victoria and Albert Museum of Corbusier's drawings related to the 1958 project, as well as a 2008 Barcelona exhibition focusing on all the architects working in Baghdad, has started to fill the gap.[19] As William Curtis astutely remarked in his seminal volume on Le Corbusier, "without fresh insights, history degenerates into an arid scholasticism or, still worse, into a shadow of passing fads."[20] In the interest of fresh insight, I take this opportunity to look at the Le Corbusier archive of the City of Sport he envisioned for Baghdad. Contrary to the idea that he let employees and associates take charge of the design, abundant documentation helps us to understand how and why the Baghdad project mattered to Le Corbusier and thus, why it might matter to us. Many letters and the sheer number of drawings alone—close to 1,500, many of which bear Le Corbusier's signature—make it clear that the work was firmly in his hands.[21] Likewise, the documents show a great architect in the last decade of his life involved in the minutest of details of the project. He continued in the face of political obstacles, while working on other major projects, coping with the deaths of his wife and his mother, and making administrative shifts in his own office.

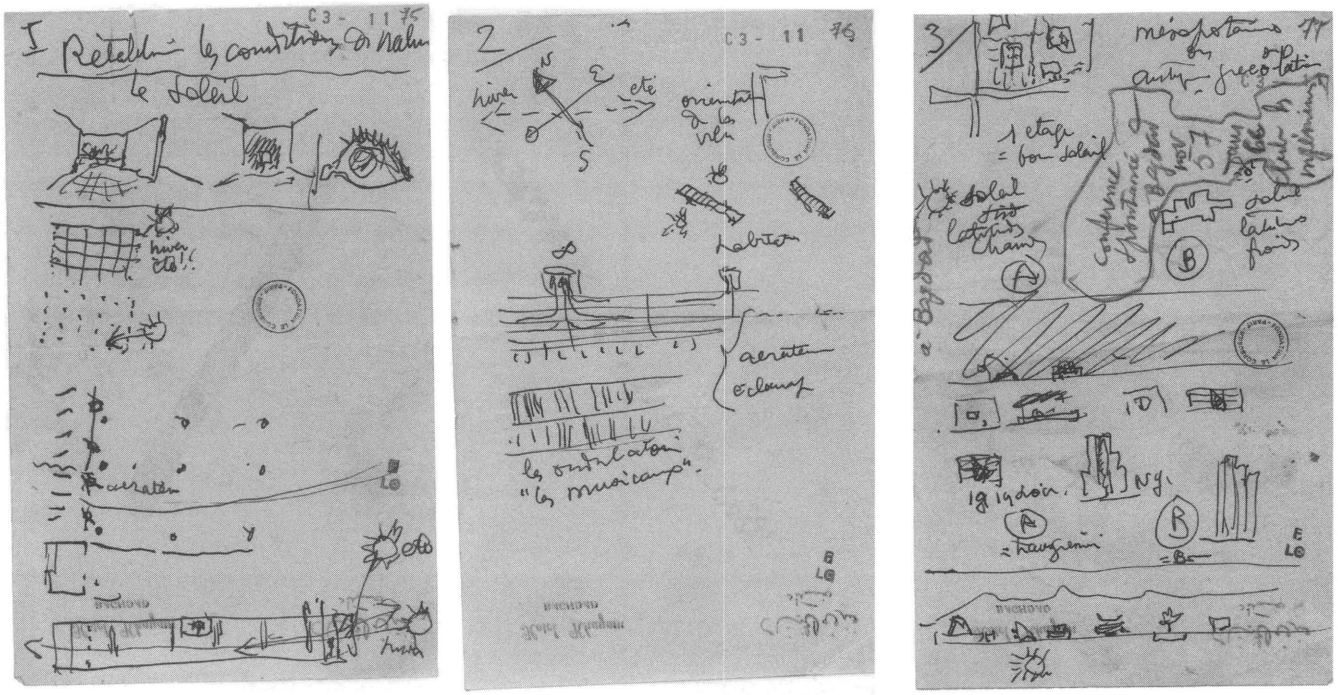
BAGHDAD INVITATION

Writing to his friend and admirer José Luis Sert in 1956, Le Corbusier underscored his age (68) and explained: "I will not accept work unless I am paid well."[22] His Baghdad correspondence reveals an insistence upon matters of compensation. It began with his response to the June 1955 letter of invitation from the Development Board, wherein he stipulated strict conditions: he would not commence the project or go to Baghdad without a signed contract and prepaid first class ticket and per diem fee.[23] In multiple letters over the course of the next two years, he discussed fee structures with people he knew or met. When the young Iraqi architect Medhat Madlhoom visited him in Paris in January 1956 en route to London, Corbu specifically asked him to enquire how British firms charged fees.[24] He also communicated frequently about financial transactions with his trusted friend, Swiss banker Jean-Pierre Montmollin.[25]

THROUGH a long series of delays and communication gaffes involving both parties, the bureaucratic process and exchange of letters and accusations dragged out well into the end of 1957.[26] The Iraqis insisted that all correspondence be in English, less than ideal for Le Corbusier, and that he provide not only architectural design but also engineering services. To meet this final stipulation, in the summer of 1957 Le Corbusier initiated a collaboration with the engineering firm of George Marc Présenté, whom he most likely knew through his work on the Unesco building in Paris.[27]

PRÉSENTÉ was an astute businessman with international experience who arranged to be paid separately by the Iraqis while working under Le Corbusier's direction. He traveled to Baghdad to deliver his proposal in person to the Development Board immediately after Le Corbusier invited him; he received a signed contract earlier than the architect. Using his knowledge of bureaucratic and legal processes, he also orchestrated payment through a Swiss bank, whereas Le Corbusier used a French bank, which turned out to be a problem whenever exchange rates changed and when the political relationship between the two countries disintegrated.[28] Le Corbusier's relationship with Présenté was to become a significant one as the politics of working on the Baghdad project unfolded and impacted the organization of his office at 35 rue de Sèvres. In the first few years of their collaboration, Présenté was continuously prospecting for Le Corbusier through his various international and national connections.[29] Le Corbusier increasingly relied on him not only for engineering but also for architectural drafting services, and not only for Baghdad but also for other projects.[30]

IN THE FALL OF 1957, shortly after his wife Yvonne died, Le Corbusier finally traveled to Baghdad armed with a precise payment procedure guaranteeing him one-third of his fees at set intervals, a draft contract (in English) and an invoice.[31] Upon his arrival on November 9, he noted on the margins of the document itself that he received the building's brief from J. Douglas, the British chief architect of the Development Board's second technical section.[32]



© Fondation Le Corbusier

Fig. 3. Le Corbusier notes from the lecture he gave in Baghdad to the Society of Engineers, which included architects. His carnet notes confirm that he delivered the lecture in Baghdad (FLC C3 (11) 75)

He also presented an invoice for the first installment of his fees, including a directive to deposit 15,000 Iraqi Dinars to his Paris bank, a note he signed in the presence of Jean Goutail, then director of the Development Board's third technical section and who had volunteered to smooth out communications.[33]

AS RECORDED in his notebook, agenda and hotel notes, in his three-day stay, Le Corbusier met with J. Douglas and his assistant, the French-speaking Belgian architect I.G. Platounoff, with Akram Fahmy, Iraq's director of Physical Education and minister of Social Affairs, and had dinner with Goutail, who presumably gave him the structural hierarchy of the board.[34] He visited Baghdad's archaeological museum and delivered a lecture to Iraq's society of engineers—of which architects were de facto members.[35] His personal impressions of Baghdad remain a mystery; save for carefully naming and charting the hierarchy of the Development Board's leadership structure, he communicated few opinions about the country *(fig. 3)*.

MOST IMPORTANT, Le Corbusier, brief in hand, joined by Douglas, Platounoff and Akram Fahmy, visited the site the Iraqis had selected for the Olympic stadium.[36] His sketchbook notes reveal his engagement with the client to clarify the program, documenting in the process the genesis of his design concepts. He envisioned a gymnasium requiring air conditioning to accommodate not only sports, including basketball, volleyball and tennis, but also opera and orchestra performances. He made notes on an outdoor pool of Olympic dimension for high diving, suggesting that it would be less expensive if it were outdoors. He noted that the minister wanted the stadium complex to include a playing field and swimming pools for young people, not unlike the pools in French schools. Le Corbusier's personal passion for swimming displayed itself in his Baghdad carnet site notes as well ("LC: a swimming pool with waves? . . . He said: yes."),[37] putting to rest any notion that his talented draftsman and chief architect, Iannis Xenakis, originated the idea of a wave pool.[38] Further, just days before embarking on his trip to Baghdad, Le Corbusier visited the new swimming pool in his hometown of La Chaux-de-Fonds, Switzerland. He was familiar with, and may well have been inspired by, the many thermal baths in the Swiss mountains. It may also be that the primary source of his innovations for swimming pools was his own passion for bathing in the Mediterranean Sea, an activity he most enjoyed every summer at his *cabanon* in Cap-Martin.

IN BAGHDAD, Le Corbusier also considered questions about building use, pondering night lighting for the stadium. It was not surprising that he mentioned "Lumier Philips" in his *carnet*; in this new commission for the Philips Pavilion for the 1958 Brussels Worlds Fair, he and his assistant Iannis Xenakis would experiment with innovative electronics.[39] Le Corbusier recorded additional provocative ideas, such as opening the stadium towards the river to allow water from the Tigris to flow into the swimming pools.[40] He also entertained the idea of an outdoor amphitheater as a less expensive way of accommodating an additional 3,000 spectators. He addressed landscaping both outside and inside. Impressed with the native "Iraqi greenery" ("toute verte herbe irakienne"), he listed many native plants and trees

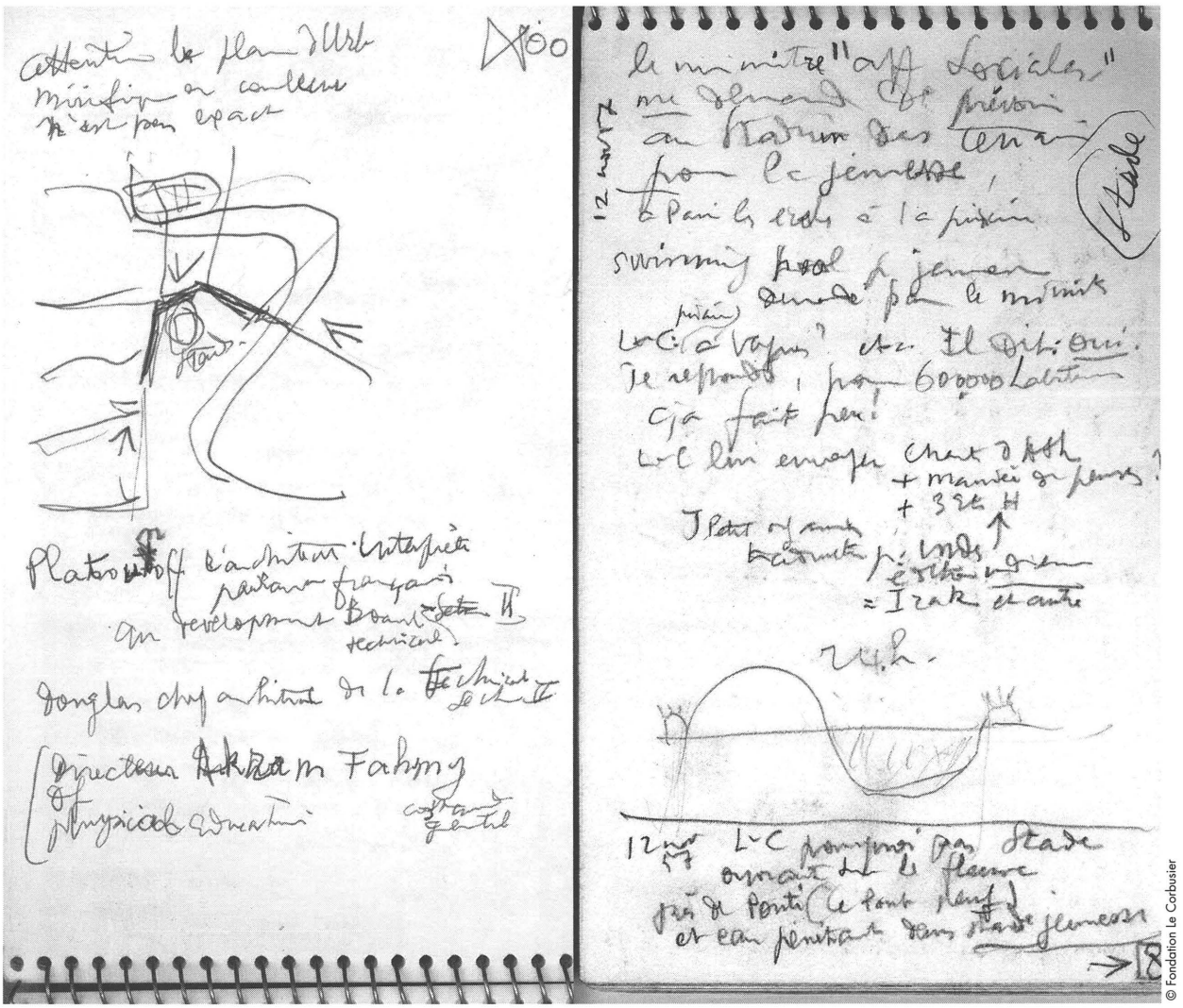


Fig. 4. Le Corbusier, Carnet L 50, p. entitled "12 Oct Philips, 8–12 Nov. Baghdad." Carnet pages dated November 12, two of more than ten pages dedicated to Corbu's 1958 trip to Baghdad. The sketch shows the location of the stadium site with respect to the river Tigris. His note, "attention le plan d'urb Minoprio en couleur n'est pas exact," refers to the 1956 Baghdad master plan by the British firm, Minoprio, Spencely and MacFarlane. He also records the names and titles of various contacts in Baghdad and outlines his earliest concepts, including an innovative swimming pool with artificially generated waves and the idea of the stadium opening onto the river so that water would flow into swimming pools (FLC W1 (3) 1062 and W1 (3) 1072)

able to withstand the region's fierce sunlight and considered how to incorporate irrigation into the design of three football fields on the green.[41]

That Corbu would conceive the entire complex as a park, noting that entry should be free, reflects his emphasis on the importance of urban parkland as well as the accessibility of sports for all, not just athletes. He proposed parking access for the three entry points he seems to have had in mind. The supreme importance of climate appeared in his carnet, in his well-known sun diagram of the twenty-four hour spectrum and in hotel stationary doodles of wind and sun *(fig. 4)*.

FROM THE START and throughout the development of the project, Le Corbusier demanded precise climatic information from his client and expected his assistants to act on it as he developed the design concept. Thus, Corbu left Iraq on November 12 with a directive to Douglas and Platounoff to send him specific information about site topography, water levels in the Tigris, native plants, and other matters. He intended to reciprocate by sending them his treatises on urbanism.[42] It is worth noting that his carnet includes notes on stadium projects by other architects: a new Japanese stadium and "the stadium in Bayreuth designed by the French—not bad."[43] In typical Le Corbusier style, he added that his Baghdad work would involve "completely new proposals" ("toutes propositions nouvelles").[44] Clearly, the site visit was productive for Le Corbusier.

BAGHDAD DESIGN, 1957–1958

In the two years between the invitation and his Baghdad trip, Corbusier had received two more stadium commissions—one in Chandigarh, India, the other in Firminy, France. That upon his return from Baghdad, he was anxious to move forward with all his stadium projects is indicated in his November 14, 1957 note to his assistant Xenakis: "Must proceed forward! I have three

urgent things that must be done at once. Do not protest! If you cannot do it, then you are neither an architect nor a boss. But it is clear you can do it extremely well."[45] Iannis Xenakis had joined Corbu's office ten years earlier and had worked on some important projects. He was also to be a key design associate on the Philips Pavilion. In fact, Xenakis insisted that Le Corbusier acknowledge his contribution on that project, which he eventually did, albeit reluctantly; it was a rare admission of an employee's authorship. It is possible that this contretemps reinforced the tensions that surfaced in their later communications and interactions. That Le Corbusier was often demanding is evident when he admonished Xenakis for drawing the Firminy stadium incorrectly: "I recall that the stadium in Firminy was drafted with incorrect (Olympic) dimensions, a mistake that would qualify as unpardonable."[46] *(fig. 5)*

IN ADDITION to Xenakis, the original team for Baghdad included Corbu's veteran assistants Augusto Tobito and André Maisonnier. All of them also had other assignments and all were given more responsibility during Corbu's frequent travels to India throughout the 1950s. It was an established office practice that one or two associates would take the lead on a project. For Baghdad, it would be Xenakis and Tobito. It is apparent that they began the project with Le Corbusier's guidance and his notes from Baghdad.[47] From there, Xenakis developed the *parti* and then produced the *dessin* for the stadium, first showing the buttresses or *voiles* that defined the curved bowl of the stadium and the first sketches of the gymnasium. Then, Le Corbusier would critique and correct the sketches, often signing his name and dating them.[48] This could mistakenly give credence to the idea that Xenakis, not Le Corbusier, authored the Baghdad project. That misunderstanding may come from mistranslation of the word "dessin" as "design." However, "dessin" means drawing or drafting rather than design. Le Corbusier gave his associates freedom to develop some concepts, after which he critiqued and adjusted things to reflect his vision.

THIS WAS his typical process not just for Baghdad but for all projects and, except for the rare case of the Philips Pavilion with Xenakis, Le Corbusier took full authorship. Moreover, for Baghdad it was Le Corbusier who knew the client needs and local conditions, and it was he who determined the feasibility of any solutions his associates proposed. Having already produced a stadium design twenty years earlier, Le Corbusier also had a familiarity with the building type that none of his associates had. The Baghdad stadium, in fact, bears some important similarities with his unrealized 1937 design for a stadium seating 100,000 for the city of Paris, not only as a center for sports but also for social/political rallies. Most compelling, the archives include early Baghdad sports complex drawings signed by Le Corbusier, with the note "dessin," confirming his hands-on involvement not just with concepts but also with drawings of the project from its inception *(fig. 6)*.

LE CORBUSIER was constantly concerned with and dictated specific principles and details before carefully reviewing drawings presented to him. A written note to

Fig. 5. Le Corbusier and his atelier at 35 rue de Sèvres, circa 1957. First row, from left: Iannis Xenakis, Olek Kujawski, Jeannette Gabillard (secretary), Jeanine Dargent (secretary), Balkrishna Doshi, Jeanne Heilbuth (Le Corbusier's secretary), Le Corbusier. Second row, from left: Jacques Michel, Sachinideis, Merlot, Kim-chun-Up, Augusto Tobito, Henri Braux, Roggio Andreini, Jacques Masson, André Maisonnier, and Fernand Gardien. In the summer of 1959, Xenakis, Tobito and Maisonnier were politely dismissed (FLC L4 (13) 8)

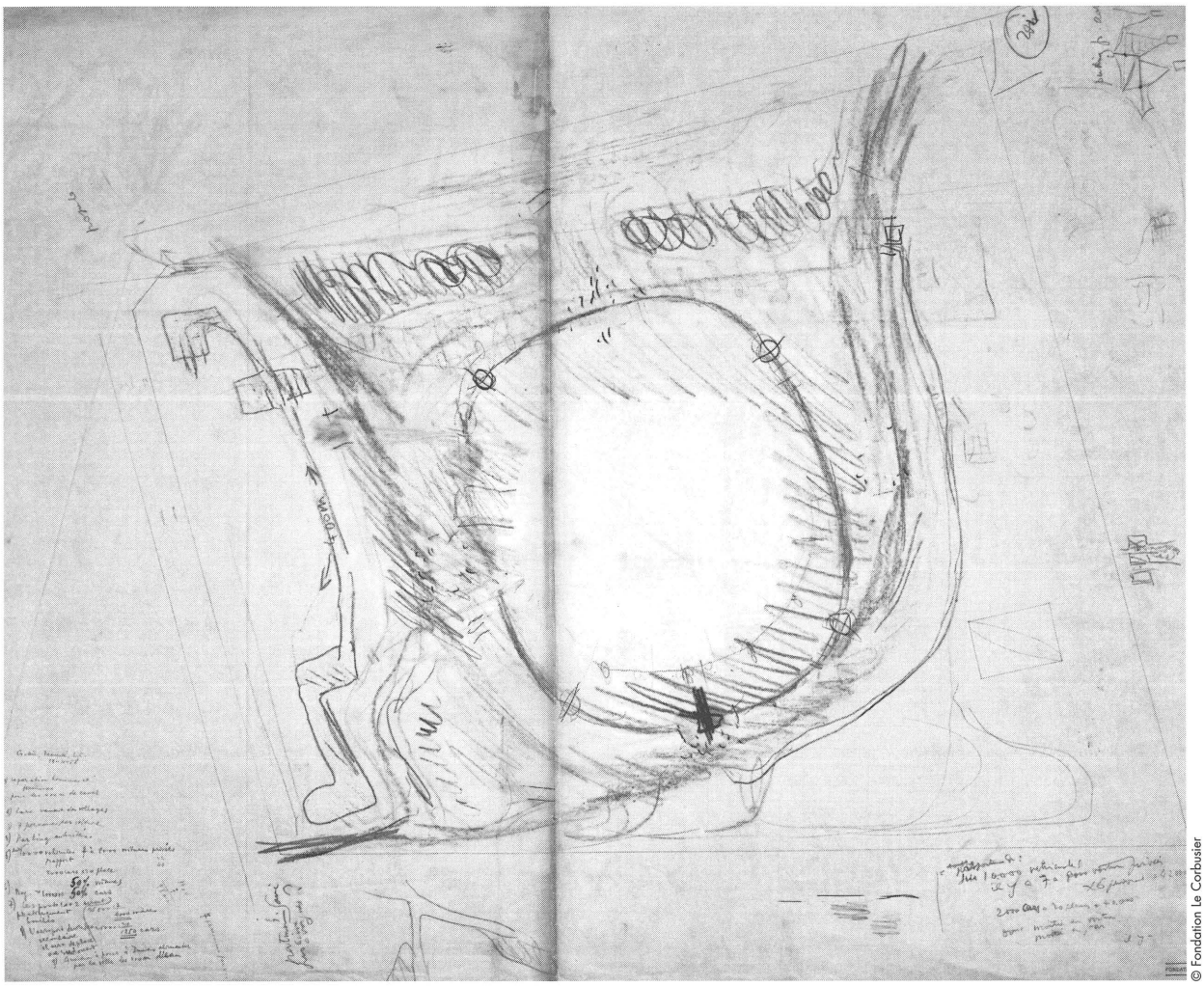


Fig. 6. Le Corbusier, drawing of Baghdad stadium, dated April 19, 1958. A colored sketch of the stadium shows an early design concept in Le Corbusier's hand with notes on the left margin about public access and parking. The drawing is also a record of Le Corbusier's meeting with his engineer, George Marc Présenté, and Jean Goutail, a French architect working for Iraq's Development Board (FLC BAG 155)

Xenakis, for instance, tells him forcefully to immediately ("de suite, sans plus de retard") produce drawings and a technical diagram to chart the path of the sun as it would affect different sections of the building at each hour. This was Le Corbusier, the supreme researcher, meticulously considering how to control the harsh sun for a building with prolonged hours of use.[49] He asked Xenakis to correct the design of the buttress for the stadium, suggesting that they not propose too sophisticated a solution insofar as large building enterprises had left Baghdad after the revolution, leaving behind a pitiful ("pitoyable") local labor force.[50] He reasserted the responsibility he felt: "Baghdad, he wrote, is at the end of the world. My responsibility as an architect is to be careful and not to embark the client on adventures or misadventures."[51]

"MY METHOD OF WORK prevents me from making preliminary drawings of no great soundness whose purpose is generally to curb the client's impatience," he wrote to Mahmoud Hasan, director general at the Ministry of Development, who anxiously awaited his solutions. "I study the problems in their biological reality and this involves extremely long and delicate approaches on urbanistic and architectural plans as well as on an engineerial [sic] ones." Reassuring Hasan that "the engineers are already making researches for the calculations of several acceptable solutions for the stadium" he added, "please be reassured and do not worry; the study is now regularly pursued."[52] This was one of many letters, telegrams, and polite or impolite internal and external exchanges before May 31, 1958, when Le Corbusier finalized a complete design *(fig. 7)*.

ON JUNE 6, he entrusted George Marc Présenté with delivering the drawings and related narrative to Baghdad. The documents suggest that with his long absences to India, tensions intensified within Corbusier's firm and he increasingly relied on Présenté. Although Corbusier had hired him only because he was obliged to, Présenté and his staff eventually substituted for some of Le Corbusier's own people.[53] He turned out to be something of a powerbroker who seems to have captured Le Corbusier's pulse, impressed him with his financial acumen, and won his confidence for a number of years. By mid-1958, the Le Corbusier-Présenté collaboration

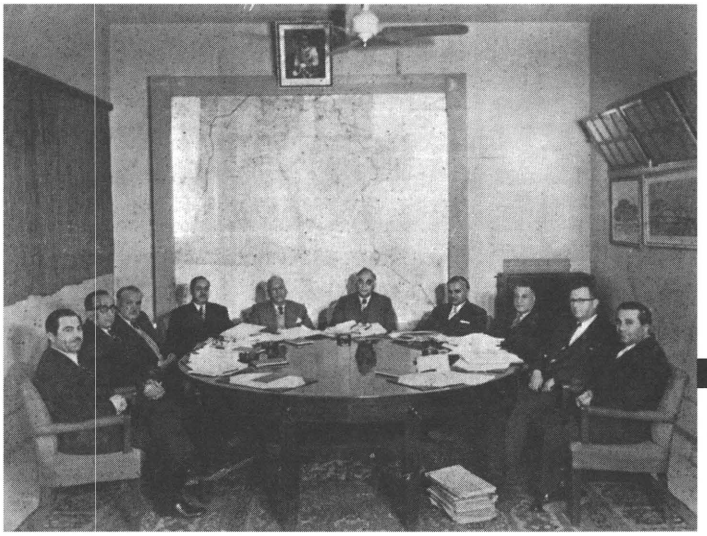
was in full swing and Présenté himself delivered the plans in Baghdad. In his accompanying seven-page description Le Corbusier made the following statement to his Iraqi clients, "Declaration: this is not a rough draft of the project. It is the project itself . . . I can here affirm that I have given an immense attention to the problem . . . In fact, my method of work is to think things over, by analysis, a long time, usefully and definitely; at a certain moment the synthesis takes place, that is to say the composition. It is not a fancy, it is a birth."[54]

LE CORBUSIER divided the components of the sports complex into five groups: (1) the stadium for 50,000 spectators, a perfect circle with four entrance ramps on cardinal points giving direct access to upper seats; (2) the gymnasium for 3,500 spectators and an open air amphitheater for basketball, tennis, and volleyball for another 3,000 spectators; (3) a swimming pool with seating for 5,000 spectators, as well as aquatic game sites that included rivers, lakes and a water-basin with waves; (4) paths for foot passengers, motorbuses, cars and bicycles, which he called the "hydraulic of crowds;" and (5) landscaping, including parks and gardens.[55] Through five key drawings, he managed to convey the idea of a complex set of buildings and landscaping that embodied the totality of his vision for an unprecedented and aesthetically innovative urban cultural center for sport. He felt he had provided all that had been asked of him and more *(fig. 8)*.

THE MASTER PLAN for the City of Sport encapsulated ideas Le Corbusier had developed for years about sports as an integral part of daily life, originally through his proposals to include exercise fields and sports facilities within apartment houses or readily accessible to them.[56] In Baghdad he went further, weaving sport into the life of the city, making it accessible by every means of transportation, including walking. His facilities met Olympic standards but he wanted them to be enjoyed by all citizens; hence the non-Olympic swimming pools, the gardens and restaurant facilities. In many ways the sports complex he proposed anticipated the multi-functional arenas that would become hallmarks of major cities around the world *(fig. 9)*.

BAGHDAD IN PERSPECTIVE

A confident Le Corbusier was pleased but not surprised to receive the July 13, 1958 telegram informing him that his design had been approved. The fate of the Baghdad project, however, was to be intimately tied to the political destiny of Iraq. While the new republic continued the project, changes in government meant changes in decision—changes inevitably translated into new demands upon the architect. Remarkably, a few of the technical staff, notably Platounoff of the Development Board (which became the Ministry of Development and later the Ministry of Housing and Public Works), remained on board, albeit under new administrative structures. One measure of Le Corbusier's commitment to the Baghdad project was his active response to the practical and financial obstacles that followed each change of government, including his return to Baghdad in May 1959 to adapt his design to a site change. This was the first of four site changes the project was to undergo in the next three years. Over the course of four more coups and twice as many changes of directors heading the organization that hired him, Le Corbusier patiently continued working on the project, sending many pleas for fees to his client, as well as letters to French and Swiss embassies and Ministries of Foreign Affairs in hope of receiving payments.



© Development Board pamphlet published in March 1957, Baghdad

Fig. 7. Members of the Development Board at their March 1957 meeting. Included are the minister of Development Mahmoud Hasan, prime minister Nuri Said, and members of the second technical section. According to Jean Goutail, Abdal Rahman Jalili, far left, championed Le Corbusier

THE DOCUMENTS leave little doubt that Le Corbusier was the author of the Baghdad City of Sport and that it was important to him in many ways. He continued the project despite political traumas in Baghdad and difficulties within the firm at rue de Sèvres. Baghdad was to be a part of Le Corbusier's legacy: he minded how it would compare to other work in the city by major architects, whether it would be technically perfect and worthy of his name. The very fact that he turned an Olympic stadium into an expansive plan for a City of Sport as an urban hub is testimony to his investment in the project. Given its importance to him, the Baghdad sports complex clearly warrants a close reading in terms of how it put into practice his concepts of urbanism and the role of sports in urban life. That is the ultimate goal of the present research as part of a broader investigation of a hidden story of architectural modernism in the Middle East. "Everything," declared Le Corbusier in July 1965, "is a question of perseverance, of work, of courage."[57]

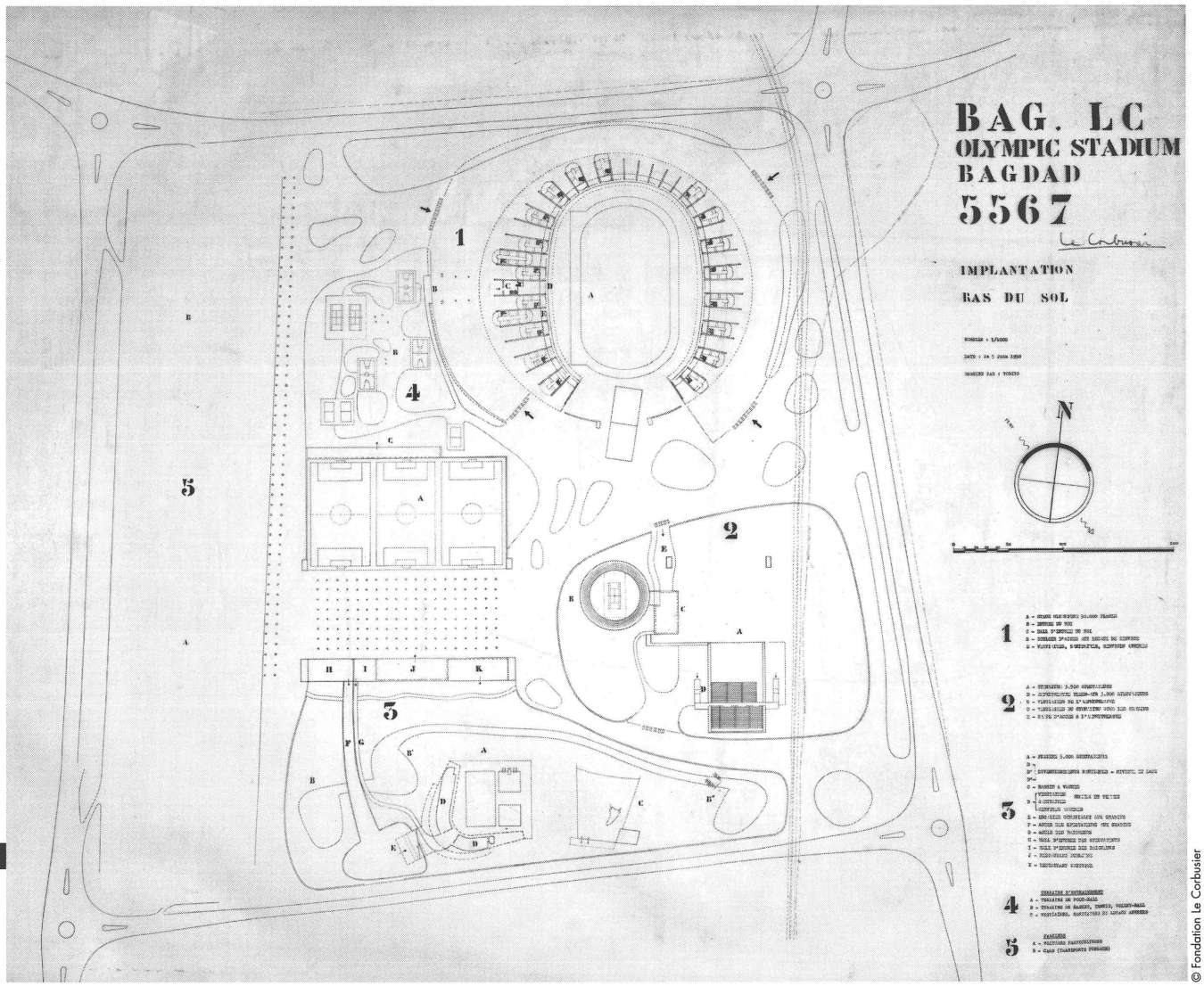


Fig. 8. Le Corbusier's Baghdad Olympic Stadium *5567*. "Implantation bas du sol." Scale 1:1000, dated June 5, 1958; draftsman: Tobito; signed: Le Corbusier (FLC BAG 419)

MINA MAREFAT *is an architect, historian and Fulbright scholar (in France, 2009), who served as curatorial advisor to the 2009–2010 Frank Lloyd Wright exhibition at the Guggenheim in New York and Bilbao, specializes in modern architecture and urbanism and teaches at Georgetown University.*

BIBLIOGRAPHY

BAUDOUÏ, RÉMI. "Bâtir un Stade: le Projet de Le Corbusier pour Bagdad, 1955–1973," lecture presented to the Centre Culturel de Bagdad, January 2002, published in Azara, *Ciudad del Expejismos: Bagdad, de Wright a Venturi*. Barcelona, 2008. 91–102.

Fondation Le Corbusier and the Architectural History Foundation. *Le Corbusier Carnets*. Paris: Garland, 1981.

LE CORBUSIER. *L'Atelier de la Recherche Patiente*. Stuttgart: Hatje, 1960. Also published in German as *Mein Werk* (Stuttgart: Hatje, 1960), in English as *My Work* (London: The Architectural Press, 1960); and in Italian as *Mia Opera* (Turin: Boringhieri, 1961).

MAREFAT, MINA. "1950s Baghdad, Modern and International," *TAARII Newsletter* 2–2. Fall 2007. 1–7.

TAJ-ELDIN, SUSAN. "Baghdad: Box of Miracles," *The Architectural Review* 1079. January 1987. 78–83.

NOTES

1 I use *mise au point*, which roughly translates as "in focus," as homage to Le Corbusier's use of this phrase to give a title to his last written text, autobiographical meditations penned weeks before his death at Cap-Martin on August 17, 1965. It was published posthumously in 1966 and has been translated and annotated in Ivan Zahnic, *Le Corbusier: The Final Testament of Père Corbu; A Translation and Interpretation of Mise Au Point* (New Haven: Yale University Press, 1997). I dedicate this article to my professor and mentor Jerzy Soltan who first taught me to 'see' Le Corbusier.

2 Fondation Le Corbusier P4 (1) 48. Hereafter, references to materials from the archive at Fondation Le Corbusier will be headed with FLC.

3 Kassem overthrew the 35-year old Hashemite kingdom. The fascinating political history of Iraq has been well discussed in recent years. See, for example Eric Davis, *Memories of State Politics, History and Collective Identity in Modern Iraq* (Berkeley: University of California Press, 2005). For cultural transformations in the early twentieth century, see Magnus Bernhardsson, *Reclaiming a Plundered Past: Archaeology and Nation Building in Modern Iraq* (Austin: University of Texas Press, 2005).

4 I am grateful to the Franco-American Commission without whose Fulbright support this research would not have taken place and whose mission to promote understanding between France and the US I fully support. The Fulbright enabled my research for the past six months at the Fondation Le Corbusier, with which I first became familiar in the early 1980s when studying the Algiers project, providing me with an appreciation of the richness of Corbu's hand-produced documents. Many of Le Corbusier's drawings are now digitalized but as with the writing of this article, digital versions of the Baghdad drawings were unavailable. I am also thankful for enlightening talks and interviews with individuals who worked on the Baghdad project:

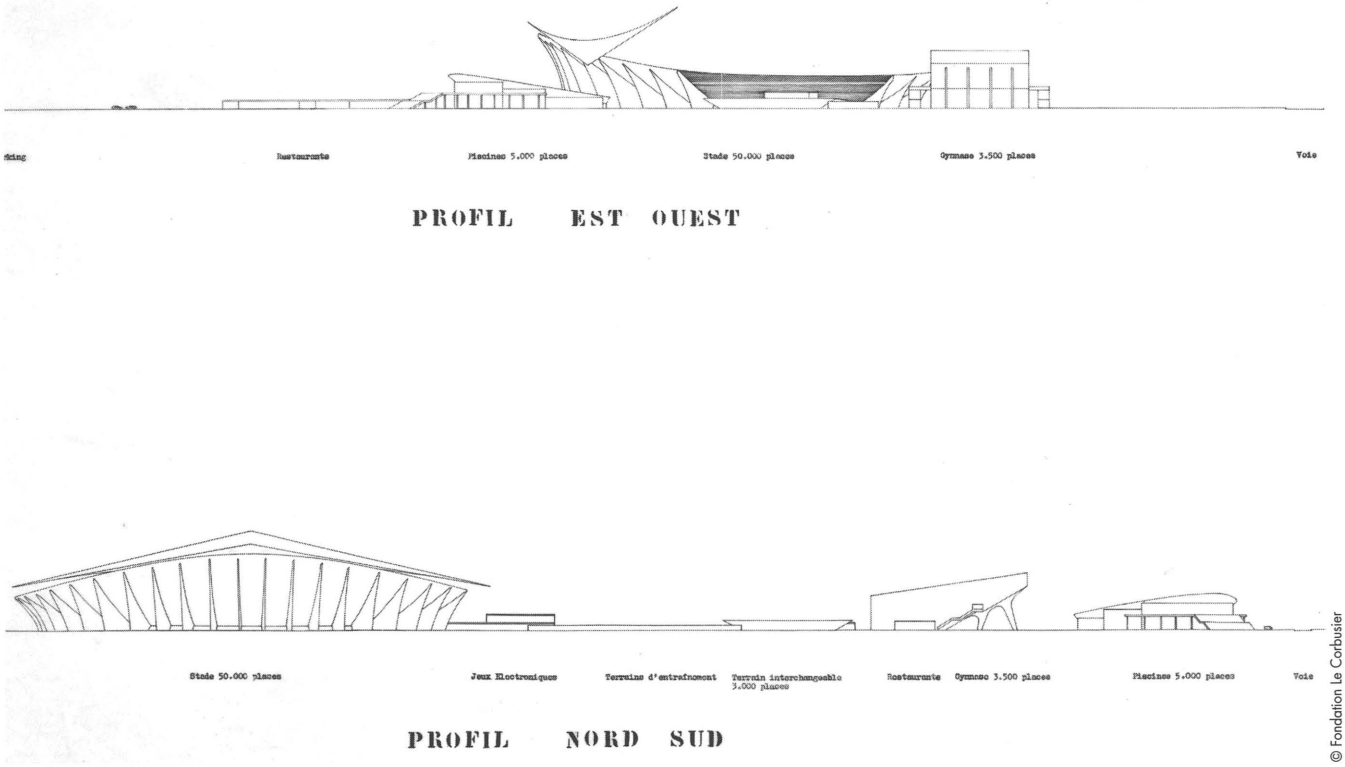


Fig. 9. Le Corbusier's Baghdad Olympic Stadium section. Scale 1:1000; dated June 5, 1958; draftsman: Xenakis; signed: Le Corbusier (FLC BAG 422)

Rifat Chadirji, Robert Rebutato, and Alain Taves. Thanks, as well, to my colleagues Caecilia Pieri and especially Jean-Louis Cohen, for many years of inspiring discussions.

5 For an introduction to this important chapter of international modernism in architecture, see Marefat, "1950s Baghdad, Modern and International," *TAARII Newsletter* 2–2 (Fall 2007): 1–7; also see Caecilia Pieri, *Bagdad Arts Deco: Architectures de Brique 1920–1950* (Paris: L'Archange Minotaur, 2008); for Baghdad's architectural history in the first half of the twentieth century in a richly illustrated volume that incorporates part of her doctoral research on the city.

6 For a more detailed discussion of this project, see Marefat, "Bauhaus in Baghdad: Walter Gropius's Master Project for Baghdad," *Docomomo Journal* 35 (September 2006): 78–86; and Marefat, "The Universal University: how Bauhaus came to Baghdad" in Pedro Azara (ed.), *Ciudad del Expejismos: Bagdad, de Wright a Venturi* (Barcelona, 2008), 157–166.

7 Frank Lloyd Wright transformed his commission for an opera house into an elaborate plan for a civic center and university, from which selected drawings have been exhibited for the first time in the Guggenheim Museum's fiftieth anniversary exhibition of Wright's work. See Marefat, "Wright in Baghdad: Urban Life more Beautiful," in *Frank Lloyd Wright: From Within Outward* (Rizzoli, 2009), 74–92, 334–343, catalogue of the 2009 Guggenheim exhibition; also see Marefat, "Wright's Baghdad: ziggurats and green visions" in Azara, *Ciudad del Expejismo*: 145–156; and Marefat, "Wright's Baghdad," in Anthony Alofsin (ed.), *Frank Lloyd Wright Europe and Beyond* (Berkeley: University of California Press, 1999), 184–213.

8 There are many new books published or in production on his posthumously built projects, including the Swiss Pavilion in Switzerland, La Tourette Monastery and Firminy Green in France, as well as Chandigarh. The recent 750-page *Le Corbusier Le Grand* (Phaidon, 2008), with numerous images never published before, an excellent introduction by Jean-Louis Cohen, and essays by Tim Benton dedicates two pages to the Baghdad project.

9 Exceptions are Susan Taj-eldin, "Baghdad: Box of Miracles," The *Architectural Review* 1079 (January 1987): 78–83; and Rémi Baudouï, "Bâtir un Stade: le Projet de Le Corbusier pour Bagdad, 1955–1973," lecture presented at the Centre Culturel de Bagdad, January 2002, published in Azara, *Ciudad del Expejismo*, 91–102.

10 *Le Corbusier et son Atelier 35 rue de Sèvres, Œuvre Complète 1957–1965*, Vol. 7 (Zurich: W. Boesinger, Les Éditions d'Architecture, 1965); *Le Corbusier, Une Encyclopédie* (Paris: Centre Georges-Pompidou, 1987). Volume 8 of the *Œuvre Complète*, dedicated to projects on the drawing boards in 1965–1969, omitted Baghdad. Together with the Fondation Le Corbusier, Garland published the multi-volume set that included some 32,000 drawings of over 300 buildings and projects. Volume 27 was dedicated to "Projet pour un Stade Olympique, Baghdad," and referenced other buildings and projects, 1953, and mysteriously includes fewer than half the project drawings now held at Fondation Le Corbusier. I have found no evidence for any date earlier than 1955 for the Baghdad project. Volumes 3 and 4 of the four-volume set of Le Corbusier's carnets published in Paris in 1981 by the Fondation Le Corbusier and the Architectural History Foundation includes his Baghdad notes.

11 Sponsored by the Vitra Museum and the Royal Institute of British Architects, guest curated by Stanislaus von Moos and Arthur Ruegg, the exhibition has traveled to venues including Liverpool, London's Barbican and most recently Berlin.

12 Press coverage began early. *France Soir* (August 19, 1957), "Le Corbusier Construira un Stade de 50 000 Places à Bagdad," FLC P4 (2): 145; *Gazette de Lausanne* (August 24–25, 1957): "Le Corbusier, Architecte du Soleil;" "Le Corbusier va construire à Bagdad un Stade de 55 000," *La Construction Moderne* (July 3, 1963). *Le Figaro, La Liberté, Aux Écoutes* and *Iraq Times*, among others, gave it press coverage. Le Corbusier was not as keen to promote the project in the press as was his engineer, George Marc Présenté who, in later years, caused friction when he used media coverage to promote his business and play up his own role in the project.

13 FLC G1 (19): 307. In a letter to Gio Ponti dated April 11, 1961 Le Corbusier comments: "ce sont de très beaux dessins."

14 The book was published in English, German and Italian as *My Work, Mein Werk*, and *Mia Opera*, respectively. Page 191 in each of them features the Baghdad sports stadium complex.

15 The lack of information is mystifying but no doubt not unrelated to the facts that many of the drawings have never been published and that many were drawn in the Présenté offices by people who worked with Le Corbusier but started with Présenté or worked in his office. The fact that Présenté and his partner, Philippe Roulier, continued the project in the 1970s may have contributed to a notion that Présenté rather than Corbu was the author of the project.

16 According to Rifat Chadirji, the stadium design was finalized

and built by Portuguese architects, principally to cut costs. Interview with author, April 2009.

17 Called the Saddam Hussein Gymnasium, it was immediately publicized and adopted not only as a sports center but also as a venue from which he delivered speeches.

18 Baudouï, "Bâtir un stade," in Azara, *Ciudad del Expejismo*, 100.

19 The show at the Victoria and Albert Museum was organized by Irena Murray, director of the Royal Institute of British Architects Archives, with Peter Carl, curator. The exhibition included drawings from the Canadian Center for Architecture, acquired from Jullian de la Fuente, who worked on the Baghdad project as one of Le Corbusier's last employees.

20 William Curtis, *Le Corbusier: Ideas and Forms* (Rizzoli, 1986): 11.

21 As noted above, Garland Press has published some 600 of these drawings. These and almost 900 more unpublished drawings are not in chronological order. Nevertheless, the drawings reveal Corbusier's personal involvement in all phases of the project. DVD versions of the drawings commissioned by the Fondation Le Corbusier have not been made available in time for this article.

22 LFLC I–1 (1): 130–131. "Moi je n'accepte de travailler qu'à condition d'être payé très bien." February 29, 1956 letter discussing a potential project for a new capital in Pakistan. Corbu proposed to work with Sert and Paul Wiener, who was good at fee negotiation. "Il s'agirait donc de trouver à ce sujet des voies et moyens utiles, et c'est ici qu'apparaît éventuellement la silhouette tyrolienne de Paul Wiener." Unless otherwise noted, translations in this article are by the author.

23 FLC P4 (3): 32. Letter of invitation from Development Board's Mahmoud Ali Mahmoud, dated June 22, 1955. Corbusier answered in a letter of July 5, 1955. FLC G2 (19) 155.

24 See FLC P4 (2) 19–23. Medhat Madlhoom was a rising young architect in Iraq who, like Rifat Chadirji, was educated in England and involved in Iraq's reconstruction projects. He came to see Corbu for a related Olympic project he was working on with a British firm. Rifat Chadirji and Hisham Munir have given me information about Madhloom.

25 See, for instance, FLC E 2 (16) 97–157.

26 Apparently, each side blamed the other as letters were lost in transit and communications became strained. The Iraqis' commitment, however, was reflected when Jean Goutail, French civil servant from the Development Board, visited Le Corbusier's office in 1956 and met with the firm's administrator, A.P. Ducret.

27 FLC G1 (12) 40–41. Le Corbusier's June 13, 1957 letter to Jean Goutail, Development Board, informs him that in response to the call for tender's requirement he proposes Bureau Technique Présenté as project engineers.

28 By the mid-1960s and after much discussion with his Swiss legal counsel and many exchanges with both the French and the Swiss embassies, Le Corbusier, too, transferred his commission to a Swiss account.

29 I am grateful to Robert Rebutato who, like a number of other associates at rue de Sèvres, first worked for Présenté. He provided much first-hand knowledge of the relationship between Présenté and Le Corbusier, confirming that the project for the Unité d'Habitation in Meaux was one of the Présenté prospects that came to fruition.

30 The project files on the Unité d'Habitation in Meaux and in Marseilles, and the Maison de Jeunesse at the Fondation Le Corbusier corroborate Présenté's collaboration.

31 FLC P4 (3) 1–4. The letter dated January 16, 1957 established the elements of the contract (in French) followed by a three-page document in English entitled "Architect's Contract submitted by Mr. Le Corbusier concerning the construction of Olympic Stadium in Baghdad," dated February 5, 1957.

32 Apparently, Le Corbusier never received the signed contract and letter the Board allegedly sent him in the summer of 1957.

33 Corbusier would later express dismay when his invoice was delayed. Goutail responded with an equally acerbic note reminding him that bureaucracy has a built-in time lag, and that one month was by no means a real delay.

34 FLC W1 (3) 1061. See also *Le Corbusier Carnet*, Vol. 3, 1954–1957 (New York: Architectural History Foundation, 1982). Of Fahmy he wrote: "he is a sportsman and he talks sport." ("il est sportif et il parle sport.")

35 Apparently, he must have seen a few sights in and near Baghdad, as his personal notes contain undated photos of the minaret of Samarra and objects in the Baghdad museum as well as sketches of the joinery of the museum door.

36 FLC 4 (1) 8–10: 1–3.

37 FLC W1 (3) 1072. "LC: piscine à vagues ? . . . Il dit : oui." "He" here refers to the Iraqi minister, Fahmy.

38 FLC W1 (3) 1056 to 1073 in Carnet L 50. These pages pertain to the Baghdad trip, November 9–12, 1957, and were also published in the *Le Corbusier Carnet* Vol. 3.

39 Corbusier called it *Poème Électronique* and published a book with that title. Xenakis developed the concept and geometry under the direction of Le Corbusier for the "first electronic-spatial environment to combine architecture, film, light and music to a total experience made to function in time and space" and "presented a collage liturgy for twentieth century humankind, dependent on electricity instead of daylight." Mark Treib, *Space Calculated in Seconds* (Princeton: Princeton University Press, 1996): 3.

40 FLC P4 (1) 11: 4.

41 FLC W1 (3) 1063.

42 FLC P4 (1) 11: 4. He made a note to send them: "Charte d'Athènes + Manière de penser ? + 3 Ets. Humains." His note also shows that he considered having Jean Petit arrange for translation of his recent book, *Trois États Humains*, for India as well as an Iraqi edition.

43 FLC W1 (3) 1057. He made a note on the same page to ask his former associate, Sakakura, about Tokyo.

44 FLC P4 (1) 8: 1 Sketchbook October 12, 57 Philips November 8–13 Bagdad. Le Corbusier wrote to Xenakis that in Baghdad they had attributed the Beirut stadium to Le Corbusier by mistake. FLC P4 (2) 42.

45 FLC P4 (2) 42. LC: "Il faut avancer ! J'ai trois choses urgentes qui doivent être conduites en même temps. Ne protestez pas ! Si vous ne pouvez pas le faire, c'est que vous n'êtes ni un architecte, ni un chef. Or vous pouvez fort bien le faire." Typed note to the attention of Xenakis, signed in Paris and dated November 14, 1957.

46 FLC P4 (2) 42. Le Corbusier's tendency to be demanding of Xenakis and his other associates is quite clear from this memo, which ends with additional assignments given to Xenakis, including the Chandigarh assembly hall and the amphitheater.

47 FLC P4 (1) 276. In a handwritten letter to Le Corbusier, Xenakis wrote that Corbu had not given him the notes from Baghdad, and that they needed to be typed.

48 For a discussion of Le Corbusier's work methodology see Judi Loach, "Studio as Laboratory," *Architectural Review* 1079 (London: January 1987): 73–7.

49 FLC P4 (1) 275. Le Corbusier, "Note à l'attention de Xenakis," March 2, 1959, Paris.

50 FLC P4 (1) 275. He told Xenakis it would not be possible to choose a manufacturer, as the choice was to be made by the government.

51 FLC P4 (1) 275. Le Corbusier, "Bagdad est au bout du monde. Mon devoir d'architecte est de veiller à ne pas embarquer le client dans les aventures ou des mésaventures." in "Note à l'attention de Xenakis," March 2, 1959, Paris.

52 FLC P4 (3) 98. Le Corbusier signed letter, May 9, 1958, to Mahmoud Hasan, Development Board.

53 Robert Rebutato, Alain Taves and Fernand Gardien, initially employed in Présenté's rue Kleber office, eventually shifted to 35 rue de Sèvres after Le Corbusier fired his lead associates Xenakis, Tobito and Maisonnier after the summer holidays in 1959. The new team whom Corbusier had instructed to work initially with Présenté became the core team for Baghdad and other international commissions. Interviews with Robert Rebutato and Alain Taves, Spring 2009, and Roger Aujame, June 19, 2009, confirmed that they all produced architectural drawings under Le Corbusier's personal supervision, first within the office of George Marc Présenté.

54 FLC P4 (1) 192, 198. Le Corbusier's own English translation.

55 FLC P4 (1) 192.

56 For insight into how early Corbu pondered the importance of sports facilities in the city, see his iconic manifesto, *Vers une Architecture*, first published in English as *Towards a New Architecture* and republished recently as *Towards an Architecture* (Los Angeles: Getty Publications, 2007) with an introductory essay by Jean-Louis Cohen.

57 Le Corbusier, *Mise au Point*, reprinted in Ivan Zahnic (ed.), *Le Corbusier: The Final Testament of Père Corbu* (New Haven: Yale University Press, 1997), 7.

Frank Lloyd **Wright** in Britain

DENNIS **SHARP**

Fig. 1. Portrait of Frank Lloyd Wright by John Donat during his 1956 visit to England

"British myself, fate took me out to prairies of the Middle West of America, and there in tall grass, I grew up and learned to build." Frank Lloyd Wright from his first lecture at the RIBA, May 2, 1939.

IT'S A VERY ODD FEELING working in the shadow of a great man. In Frank Lloyd Wright's case I shall try not to eulogize. And I don't want to venerate or simply to praise a great architect. His buildings and projects are quite adequate for that. Rather, I want to examine throughout an enormously long life what lay behind this quasi-Welsh genius. He is the one who names his homes and work places after a (Welsh God) myth and designs houses inspired by the Queen Anne style and attacks the Arts and Crafts movement for not recognizing the significance of machine production, while remaining committed to its main tenets. In Wright's case, as the British critic and historian John Summerson wrote in the *World Review* of 1941: "It is . . . the discovery of a new philosophy of architecture" that distinguishes his work. He referred less frequently, as far as I can ascertain, to anything Scottish although one may detect, even in this puzzling omission, a certain Gaelic interest in Celtic if not precisely Gaelic (Caledonian) imagery.[1]

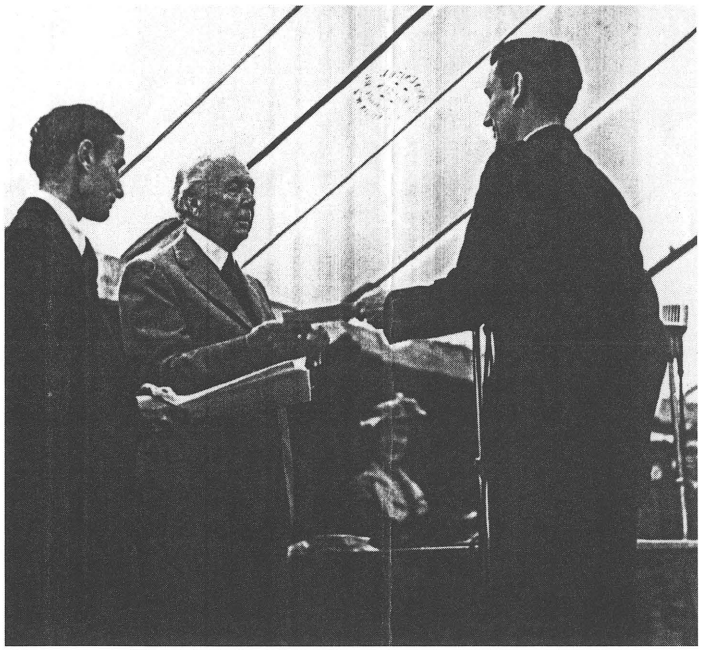
I CALL this article "Frank Lloyd Wright in Britain" not for want of a better phrase but because it creates the framework for an examination of his visits to Britain. I could easily have called it "Frank Lloyd Wright in England (and Wales)" but that would not have corresponded to the idea I had of examining not only Wright's appearances in this country (which were absolutely minimal anyhow) but his dedication to the idea of Britain, its Englishness and particularly, through his family's lineage, to its 'Welshness.' Nikolaus Pevsner, in an article in *The Architect's Journal* called Wright's "peaceful penetration of Europe," widened the whole scope of Wright's work at the time when he gave his London lectures, extending its boundaries far beyond Britain.

FON NE COMPTE PLUS AUJOURD'HUI LES ÉTUDES CONSACRÉES À L'ŒUVRE DE FRANK LLOYD WRIGHT. PLUS RARES SONT CELLES CONSACRÉES À L'HOMME, ET NOTAMMENT AU LIEN SINGULIER QU'IL ENTRETENAIT AVEC LA GRANDE-BRETAGNE. À TRAVERS CET ARTICLE, DENNIS SHARP ANALYSE L'INFLUENCE DES ORIGINES GALLOISES DE FLW SUR SES ŒUVRES, LEURS NOMS MAIS SURTOUT SUR SA CONCEPTION DE L'ARCHITECTURE. À TRAVERS LES VISITES EN GRANDE-BRETAGNE, LES SOUVENIRS, LA FAMILLE DE FRANK LLOYD WRIGHT, L'AUTEUR RÉVÈLE LA FILIATION BRITANNIQUE, AUSSI BIEN PERSONNELLE QUE PROFESSIONNELLE, DE L'ARCHITECTE AMÉRICAIN.

ON HIS FIRST VISIT to England in September 1909 Wright, accompanied by his new lover (Mrs.) 'Mama' Borthwick (Cheney) from Oak Park, Illinois, visited his old friend and colleague C.R. Ashbee at Chipping Camden in Gloucestershire—Ashbee was repaying the hospitality he had been afforded in Oak Park.[2] A year later, after his departure from Florence, he returned again but this time without Mama. The purpose of this second visit in 1910 seems to have been to enlist Ashbee's help in providing Wright with a foreword for a book of photographs and plans which he had previously completed in Chicago in 1909 and was destined to appear later in Germany in 1911. A small format publication and appearing a year after the publication of the famous Wasmuth portfolio of 1910, it was produced in two separate paperback editions by the Berlin publisher Ernst Wasmuth. Of the smaller publication, one edition was for general distribution and one, within the series *Architektur des XX Jahrhunderts* No.8, for subscribers.[3]

EARLIER, Wright had heard that C.R. Ashbee, who was promoting the Arts and Crafts philosophy in Chicago, was giving a talk in Chicago before he himself gave the Hull House lectures. Wright took Ashbee around Oak Park and a firm friendship resulted. At the first encounter in Chicago the somewhat volatile Ashbee had warned of the machine damaging the integrity of the artist whereas Wright had defended it in both lectures in the city. But even so Wright was thoroughly committed to the Arts and Crafts movement which he saw as anti-academic and pro-craftsmanship. He was to prove through a prodigious initial output that he was the most successful international Arts and Crafts architect of them all, and most apt at relating his theoretical ideas to organic architecture and democracy.

Fig. 2. Presenting the prizes at the AA School in 1950

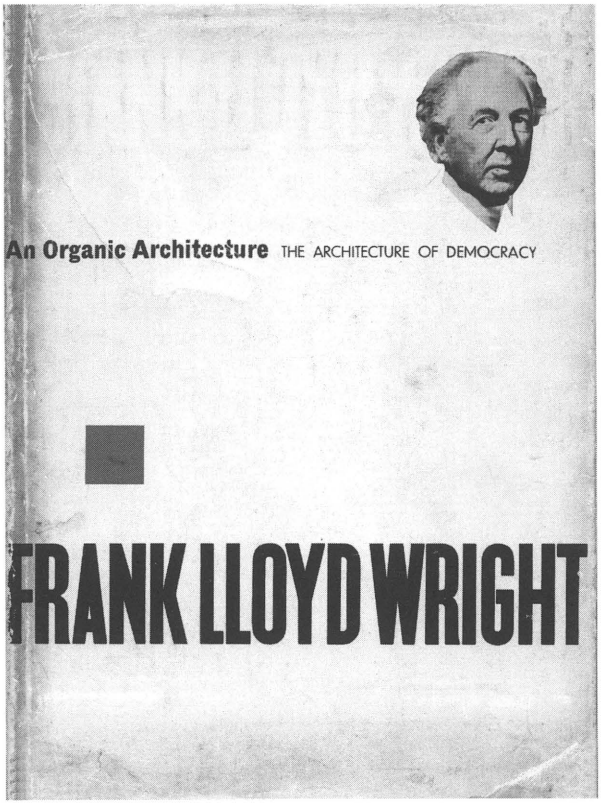


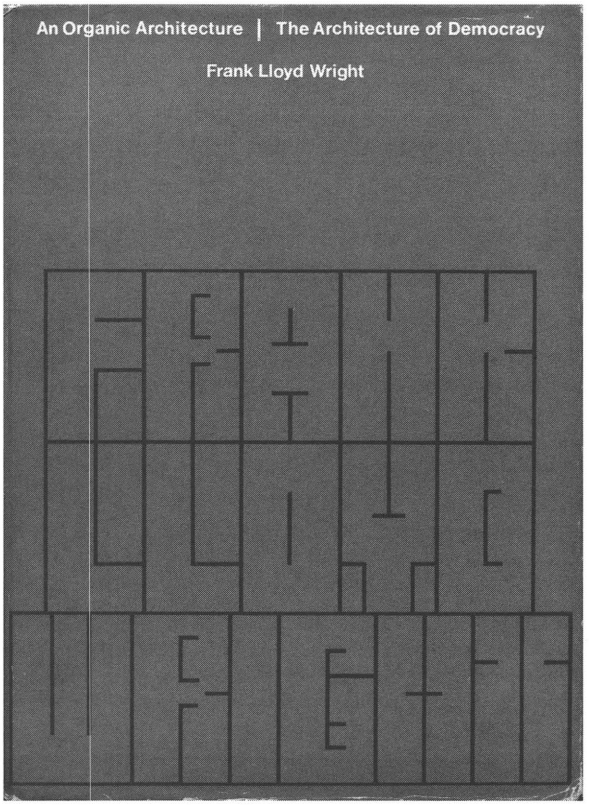
IN 1910 FLW was 43 years old. It was much later in his career that he was to visit a place which played such a prominent part in his mind as he grew up in the American Mid-West. England, and more particularly Wales, was always there in his mind. It also played a significant role in his psyche. He used the Welsh word "taliesin" meaning "shining brow," in naming his properties, firstly in Wisconsin, and then in the 1930s at Taliesin West in Scottsdale, Arizona. Wright was surrounded by the Welshness of his family, aunts, uncles, and cousins—all with Welsh blood in their veins. And most of them had Welsh names. They would sing hymns in the Welsh language and converse animatedly in the Welsh tongue.[4]

IN THE OPENING pages of his notoriously inaccurate *An Autobiography* (1932) he spoke of his pre-natal influences. Of his beloved mother who was so fascinated by buildings that "she took ten full pages of the old English cathedrals from *Old England*, a pictorial periodical to which his father had subscribed, and had them framed simply in flat oak frames and hung upon the walls of the room that was to be her son's." In his youth Wright took as much interest in English authors (from the famous Nickel Library) as he did with his love for German music, which always had a prominent place in Madison life.
However, to Wright the prospect of his university years were a 'dull pain' and he saw little meaning in it but recalled a yearning to speak his own language supremely well. He avidly read: Blake, Carlyle, Ruskin, Morris and Shelley as well as Victor Hugo, Goethe and Viollet-le-Duc. At university he suffered under a pompous professor who paid little attention to his creative inquisitiveness, and he was left to himself to find out about the "language of English" as he put it.[5]

WRIGHT'S EIGHTEENTH YEAR saw him dreaming architecture. He saw it everywhere. He left the university and persuaded his dutiful mother that there were opportunities to be found in the great city of Chicago. He asked her to write to the Reverend (Uncle) Jenk to try to find him a position there. But Uncle refused and Wright was advised to stay at university. He left. He recalls in his *Autobiography* that he said goodbye to the 'boy' and he became the "great I am, the sentimental son of a sentimental mother, grown up in the midst of a sentimental family planted on free soil by a grandly sentimental grandfather, the Welsh pioneers."

THERE WAS a wide cultural basis to Wright's work, but the ideas and influences absorbed from outside sources were minimal. Only the pronounced influence of his *Lieber Meister* Louis Sullivan seems to have been of significance in forging his own philosophy. He had readily absorbed Sullivan's views about honesty of expression in architecture, architecture's democratic





Figs. 3 & 4. Original cover design for *An Organic Architecture*, London, 1939 edited by Anthony Cox and Bobby Carter (left). The later edition by Lund Humphries (right)

place in American life, and what proved to him to be the ethical base of a truly American and democratic architecture. He was not seduced by the simplistic interpretations of the idea, attributed to Sullivan, that "form follows function." Instead, he, with the Master, acknowledged that beauty, and indeed ugliness, were resident in both function and form. Wright believed that form and function were one.[6]

THERE WERE no more official visits to Britain until 1939. At least, none that are recorded. However, it is suggested that he came through Liverpool (or Southampton) en route to the USSR, during which he met and became friendly with Clough Williams-Ellis. The Sulgrave Manor lectures had been put off from 1938 as originally planned. The following year Wright visited London with Olgivanna and his daughter, followed by a visit to Yugoslavia. Mrs. Wright was a close friend of the writer and poet Katherine Mansfield, who lived in London and was connected to her through the Krishnamurti movement. Wright gave his four ad-hoc lectures to large crowds at the RIBA and while in the UK addressed other institutes, including the AA. In 1939 these lectures were comprehensively published in the book *An Organic Architecture* and recorded in the pages of the magazine *The Builder*.

RIBA GOLD MEDAL

Two years after Frank Lloyd Wright presented the Sulgrave Manor Lectures at the RIBA, the Institute's Council recommended to HM The King that the Royal Gold Medal for 1941 should be conferred on him. He accepted. And an announcement was duly made at the beginning of 1941 and broadcast throughout the whole media. Frank Lloyd Wright himself had been informed in August 1940 and invited to accept the honor, but the final announcement he heard over the radio at Taliesin. The British technical papers unanimously praised Wright's genius and dutifully printed the RIBA press release. The only note of disquiet was raised by the *Architect and Building News*, then under the editorship of

Fig. 5. Frank Lloyd Wright and Olgivanna with the principal of the AA School in 1950

Fig. 6. Wright lionised by students outside the AA School in 1960

John Summerson, which took upon itself the obvious question of why it had been so late in the day that Wright should receive this prestigious award, and to note that it would now seem "almost platitudinous." The Welsh newspapers were ecstatic. The *Western Daily Mail* of January 2, 1941 announced in banner headlines: "World's greatest architect honor for Welshman in US."

IT IS WORTH noting that RIBA itself had never recognized the significance of the many developments in architecture that had occurred in the United States, and that only three Americans had been awarded the Royal Gold Medal since its commencement in 1848. H.H. Richardson had been nominated for the award in 1888, the year in which the house he designed in Bushey, Hertfordshire, for the pioneer artist and film producer Sir Hubert von Herkomer was completed, but due to his own premature death at the age of 48 in that year it could not be awarded and went instead to the great Danish architect Hansen.[7]

WRIGHT AT THE AA AGAIN

Returning to London in 1950 after an absence of a decade Wright recalled, in an address at the annual prize giving to the Architectural Association students, that the year of the outbreak of World War II "the bombs were about to drop on London." His earlier trip in 1939 had been well paid but it also involved a not too successful visit to Paris. He returned to give away the AA School Prizes in 1959, during a session organized by the school's director Robert Furneaux Jordan and the AA Council. This time, with his great admiration for the AA, he paid for his own passage.

IN WHAT PROVED to be a remarkably perceptive AA speech Wright shot a fistful of pellets at the general approach to full-time learning as a professional system leading up to the idea that the architect is the form-giver of his civilization, of his society: "Perhaps the handing out of tickets to sit around for four years studying and reading about architecture may have something to do with it—a degree I think they call it, saying that they are fit to practice architecture," claiming that architecture "was a blind spot of our civilization, of our culture," in a confused state in which "no one knows a good building from a bad building."[8]

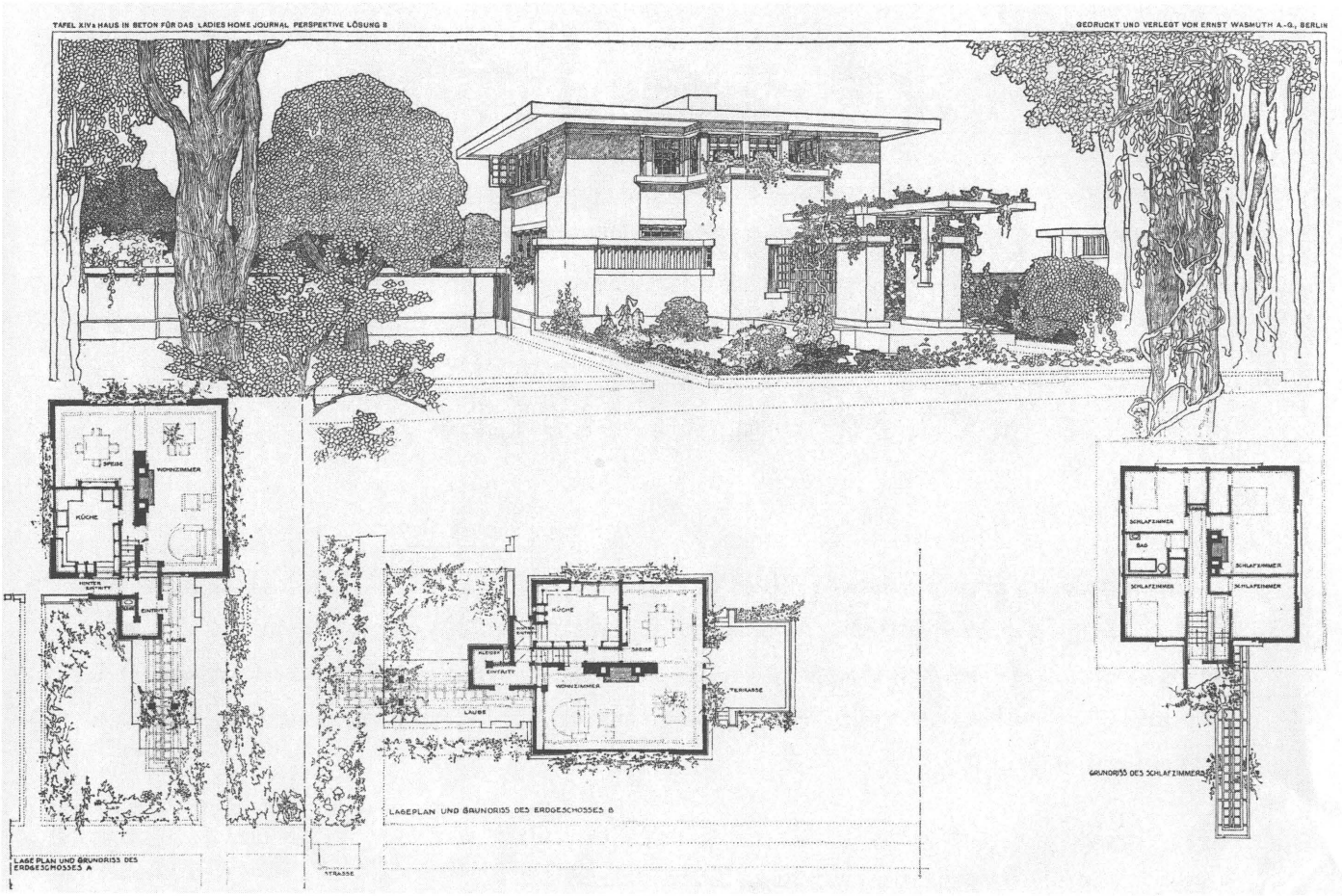
In 1976, he received an honorary degree from the University of Bangor in Wales and met up with Clough Williams-Ellis. His degree was supported by Clough, who had designed the seaside neo-romantic town of Portmeirion on the West coast of Wales. It was the last visit he made to England and to Wales.

Images from The Architectural Association Library and Archive collection, London.
Architects Cooperative Partnership, Northaw, Herts. John Donat Photographer. All rights cleared by Dennis Sharp.

DENNIS SHARP, *co-chair of Docomomo UK, chair of CICA (the International Committee of Architectural Critics) and member of Docomomo Advisory Board, is an architect and the author of a number of books on modern architecture including* Connell Ward and Lucas: Modern Movement Architects in England 1929–1939 *and currently working on* Frank Lloyd Wright in Britain *(BookART, 2010).*

BIBLIOGRAPHY AND FURTHER READING

The texts of the spontaneous lectures were recorded (probably by Edward Bobby Carter), in the pages of *The Builder* (May 5, 12, 19, 1939), "Mr. Frank Lloyd Wright's four Watson lectures:"
(1) "The Philosophy of that Architecture" (May 5, 1939), 856–7.
(2) "Organic Architecture, The Movement" (May 12, 1939), 909–10.
(3) "The Practical Applications to Date" (May 19, 1939), 953–4.
(4) "Exemplars and Technique" (May 19, 1939), 951–4.
Later, in 1939, the whole text without the valuable discussions featured in *The Builder* was published as *An Organic Architecture: The Architecture of Democracy* (London: Lund Humphries, 1939), edited by Bobby Carter and Anthony Cox; republished in 1970.
See also Wright's reply to criticism of his 1939 talks in "To the Fifty-Eighth," *RIBA Journal* (October 16, 1939), 1005–6.
Wright's talks to the AA are included in the AA Journal for May 1939



Figs. 7 & 8. This artist's house/studio by Colin Lucas of Connell Ward and Lucas was designed in 1933 and follows the heavy lid top of Wright's earlier house published in the *Ausgeführte Bauten und Entwürfe*, 1910

(268–9), and August–September 1950. The latter was reprinted in Architectural Association: 125th Anniversary, Dennis Sharp (ed.) (London: Professional Publications, 1973), 161–2.
The paper delivered by Andrew Saint at the Boston meeting of the SOH has been a valuable source of information for this article.

NOTES

1 See John Summerson's essay "The British Contemporaries of Frank Lloyd Wright," *The Unromantic Castle* (London: Thames and Hudson, 1990): 235–44.

2 Alan Crawford, "Ten letters from Frank Lloyd Wright to Charles Robert Ashbee," *Architectural History* 13 (1970): 64–73.

3 1910 Wasmuth Portfolio (*Ausgefuhrte Bauten und Entwurfe von Frank Lloyd Wright*). A second enlarged version of the portfolio was published on a small format in 1925 by Ernst Wasmuth, Berlin. In it, the plates retained their original sequence, but with a new size 48.2 x 32.5cm, and reprinted in brown ink on white paper. An American edition of the portfolio was first produced in 1963 by Horizon Press, New York, with the title *Buildings, Plans and Drawings*. It had a print run of 2,600 copies of which 2,500 were for sale (each numbered) and was printed on tan/grey paper in gold, brown and grey.

4 Barney Maginel Wright, *The Valley of the God-Almighty Joneses* (Spring Green: Unity Chapel Publications, 1986 (1965)), 58ff.

5 Frank Lloyd Wright, *An Autobiography* (London: Faber, 1945). All quotes are from this source.

6 From L.H. Sullivan, *Kindergarten Chats, Dialogue between Master and Student* (New York).

7 The other American recipients were: Charles F. McKim (1847–1909) of McKim, Mead and White, received the award in 1909; Richard Morris Hunt (1827–1895) in 1893; Thomas Hastings (1860–1929) who was a former assistant of the McKim Mead and White practice in New York and later became the partner of John M. Carrere, who built Devonshire House, Piccadilly, was given the Gold medal in 1922.

8 See the *AA Journal* 54 (May 1939): 268–9.

Fig. 9. Rob van 't Hoff after visiting the USA in 1912 brought back a reminder of the concrete work of Wright. It was a key example portrayed in Pevsner's article "Wright's peaceful penetration of Europe" in the *Architect's Journal*

Albert Ledner
An Organic Architect in New Orleans

LINDSAY **McCOOK**

In 1950, a young architect named Albert C. Ledner began his practice in his hometown of New Orleans, Louisiana, with a small commission for a residence. This young architect, unlike many of his local contemporaries, was not interested in replicating the traditional architectural styles that make and continue to make New Orleans famous, but in designing structures that were modern and interesting.

LINDSAY McCOOK NOUS PRÉSENTE L'ŒUVRE D'ALBERT LEDNER AU TRAVERS DE PROJETS QUI PARTICIPENT DU PATRIMOINE ARCHITECTURAL MODERNE DES ÉTATS-UNIS. INFLUENCÉ PAR FRANK LLOYD WRIGHT, LEDNER A DÉBUTÉ SA CARRIÈRE APRÈS LA SECONDE GUERRE MONDIALE ET A PRODUIT PLUS DE CENT BÂTIMENTS EN SOIXANTE ANS DE CARRIÈRE. EMBLÉMATIQUES DE L'ARCHITECTURE ORGANIQUE DU SUD-EST DES ÉTATS-UNIS, SES CONSTRUCTIONS FIGURENT ÉGALEMENT DES THÉMATIQUES PLUS LARGES DE L'ARCHITECTURE AMÉRICAINE DU MILIEU DU XX^{E} SIÈCLE.

WITH THIS FIRST COMMISSION and throughout his sixty-year career, Ledner, along with several other architects in the postwar era, brought the modern movement's functionality and architectural vocabulary to the city of New Orleans. Yet Ledner differed from his contemporaries. Fascinated with the work of Frank Lloyd Wright and having apprenticed at the Taliesin Fellowship, Ledner believed in organic architecture while other modernists employed the international style in their buildings.[1] Ledner understood organic architecture through Wright, who defined his buildings as complete organisms that grew and lived, and therefore as organic architecture. Interior function informed external appearance, and there was thematic unity between the elements of the building. Wright developed organic architecture in style through his built projects and in principle through written publications.[2] Embracing the organic movement, Ledner consequently created an unexpected body of work in New Orleans that provides the city with some of its most quirky and memorable buildings.

BECOMING AN ORGANIC ARCHITECT

Born in 1924, Ledner started architecture school at Tulane University in New Orleans at the age of sixteen. During his second year in 1941, Ledner joined the Air Force Division of the United States Armed Services to fight in World War II. Twice stationed in Arizona near Frank Lloyd Wright's Taliesin West, Ledner visited the site and saw Wright's buildings in person for the first time. A seminal moment in Ledner's training as an architect, Ledner advocated for the organic style of architecture as popularized by Wright from that visit onward. When Ledner returned to Tulane in January 1946, he began to apply the way of thinking to his own projects. Ledner pursued an apprenticeship with the Taliesin Fellowship following his graduation in 1948, and from September to December 1949, he lived and worked at Taliesin East in Spring Green, Wisconsin.[3]

LEDNER returned to New Orleans in late 1949 for a commission that was never built, but he did complete his first residence in 1951 and continued to practice there for the next six decades.[4] The bulk of Ledner's 109 works is in or near New Orleans with a smattering of buildings commissioned by the National Maritime Union (NMU) across the country. Ledner's portfolio largely consists of small-scale residential or commercial structures ranging from middle-class residences to optometrist's offices to bowling alleys to campus buildings. His work for the NMU led to the creation of the hiring hall as a building typology that he then had the opportunity to apply to

numerous major American port cities, including New York and Baltimore. Ledner did this work while maintaining a small studio never larger than one to three associate architects, and he rarely vied for the larger civic and commercial projects sought by his colleagues. He developed close, almost intimate, relationships with his clients, and his attention to detail and his ability to achieve their satisfaction helped to foster his large client base in New Orleans.[5]

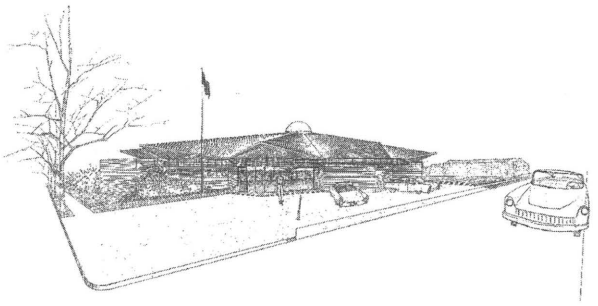


Fig. 2. **Albert Ledner**, *National Maritime Union Hiring Hall*, New Orleans, Louisiana, 1954. Perspectival drawing

DERIVED FROM the principles of organic architecture, Ledner's style evolved first from an architecture that resembled Frank Lloyd Wright's to one that demonstrated his own playful personality. Even prior to his early visit to Taliesin West, Ledner gravitated towards the organic movement and its earliest roots. He had come to architecture school interested in the Arts and Crafts movement and Louis Sullivan, and while there, discovered the early endeavors of Wright.[6] The fundamental principles of organic architecture as described by Sullivan and Wright—the importance of building functionality in relation to humans, a response to nature and site in a building's design, and finding a holistic theme for a building—appealed to Ledner. Additionally, the whimsical elements and curvilinear forms of later organic architecture gave him the opportunity to express his more theatrical and lighthearted side.

Initially, Ledner adopted the aspects of the Prairie Style, using open and fluid floor plans, natural and unpainted materials, broad overhangs and an emphasis on horizontality to define his designs. Some works also emulate the simpler Usonian houses that Wright designed with their one-story, brick-on-concrete slab massing and tight plans. As he became more confident in his work, Ledner let the ideas of organic architecture shape his *parti* and inspire his aesthetics, but ultimately, he crafted buildings in his own particular language. He was particularly intrigued with the structural systems of buildings and how they could achieve a unique expression while maintaining maximum efficiency at an affordable cost.[7] Typically these structural systems were partially or totally exposed and were visible from either the exterior or the interior, thus marking his buildings as studies in engineering and structure. From the Arts and Crafts movement and Wright's influence, Ledner developed an appreciation for handmade features. He designed and fabricated light fixtures, mosaics, exterior decorations, built-in furniture, and even sculptural garden

Fig. 1. **Albert Ledner**, *National Maritime Union Hiring Hall*, New Orleans, Louisiana, 1954. Roof construction

All pictures © Albert Ledner collection, Southeastern Architectural Archives

pieces for some of his projects. These sometimes whimsical items were generally made from ordinary materials and objects.[8]

THE WORK OF ALBERT LEDNER

Many of Albert Ledner's buildings are of local, regional, or national importance. At the national level, Ledner's work for the National Maritime Union created a unique typology, the hiring hall. All the hiring halls and office buildings that he designed for the NMU in New Orleans, Mobile, Baltimore, New York, Norfolk, Houston, and San Francisco married circular and organic forms and motifs with innovative structural roof forms. Featured in local and national publications, the New Orleans hiring hall perplexed architects and engineers at the time with its wooden, folded plate roof design *(figs. 1 & 2)*.[9] Later, Ledner used a similar system in steel to create the round roof of the Baltimore hiring hall. Although some of his NMU buildings remain, the majority are increasingly threatened as they change owners. Most recently, the NMU headquarters building in New York, now known as the O'Toole building and owned by St. Vincent's Catholic Medical Center, became the subject of a battle as preservationists lobbied to save the building from demolition. It is the hiring halls with their unusual, organic aesthetics and structural experiments that gave Ledner's work national prominence. Today these singular purpose buildings are landmarks not only of modern architecture but also of the once prominent maritime union.

IN NEW ORLEANS, his buildings have a different significance. Ledner contributes to the national zeitgeist favoring the organic movement and also Frank Lloyd Wright, and his projects comprise most of the local examples of this style of architecture. Three homes on Park Island in New Orleans and Ledner's own home nearby have become local landmarks owing to their idiosyncrasies and architectural style. Built in 1961 and 1972 respectively, the Sunkel and Leonard Residences on Park Island best demonstrate Ledner's somewhat whimsical touch in architecture *(figs. 3 & 4)*. These homes, some of his least fanciful in plans and elevations, feature Ledner's most quirky detailing. Because both Sunkels were fervent smokers (he of cigars, and she of cigarettes), Ledner used amber glass ashtrays to adorn both the interior and exterior cornices of the building, resulting in over one thousand ashtrays marching around the fascia of the house *(fig. 5)*. At the Leonard residence, Ledner fashioned large indoor and outdoor light fixtures from Cointreau bottles because he appreciated the deep brown color and shape of the bottles (the homeowner did not necessarily love the liqueur Cointreau) *(fig. 6)*.[10] These two homes have become synonymous with their ornamentation and are known by New Orleanians as the Ashtray and Cointreau houses.

Fig. 3. **Albert Ledner**, *Sunkel Residence*, New Orleans, Louisiana, 1961. Front elevation

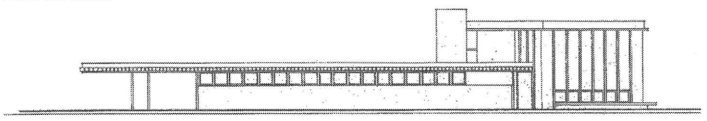


Fig. 4. **Albert Ledner**, *Leonard Residence*, New Orleans, Louisiana, 1972. Front elevation

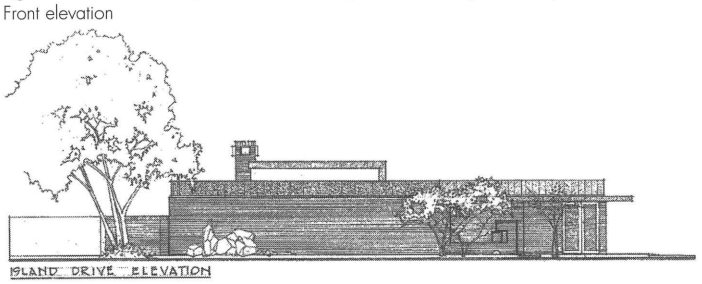


Fig. 5. **Albert Ledner**, *Sunkel Residence*, New Orleans, Louisiana, 1961. Ashtray detailing on exterior of the residence

LEDNER'S THIRD RESIDENCE on Park Island, the Galatoire Residence, dates from 1964 and is Ledner's most exuberant building in New Orleans *(fig. 7)*. Its sweeping and white curved structure drew inspiration from the Guggenheim Museum in New York, but Ledner embedded an unexpected set of objects into the unusual design. On the bayou side of the house, Ledner designed a wall of right-side up and upside-down fanlights to maximize views of the water and utilize the salvaged decorative windows that had been collected by the owner. The owner had also acquired an assortment of historic architectural pieces that she wanted incorporated into the building design, and so the Galatoire Residence features Ledner's only use of recycled materials. Stained glass *rondelles* from a nineteenth century school for girls, brass ornamentation from an old bank, and salvaged marble from a shipwreck are interwoven into the modern fabric of the residence.[11]

FINALLY, Ledner's own home again illustrates his skill at combining form and function. He adapted the folded plate roof design he first employed at the NMU hiring hall in New Orleans to a star-shaped plan, and interlocked two of these roofs to achieve a long, two-node residence that resembles a mid-century spaceship on the

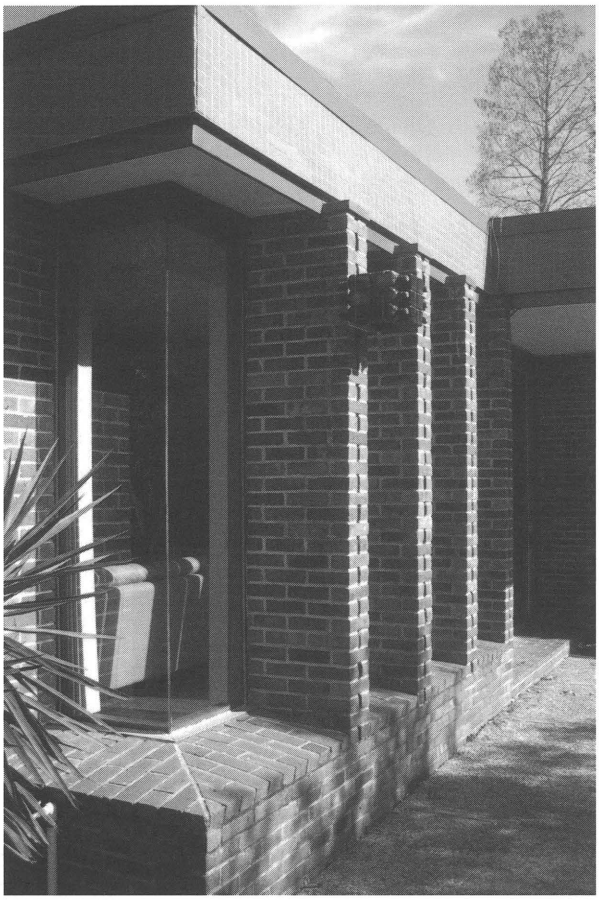


Fig. 6. **Albert Ledner**, *Leonard Residence*, New Orleans, Louisiana, 1972. Cointreau bottle light fixture on exterior of residence

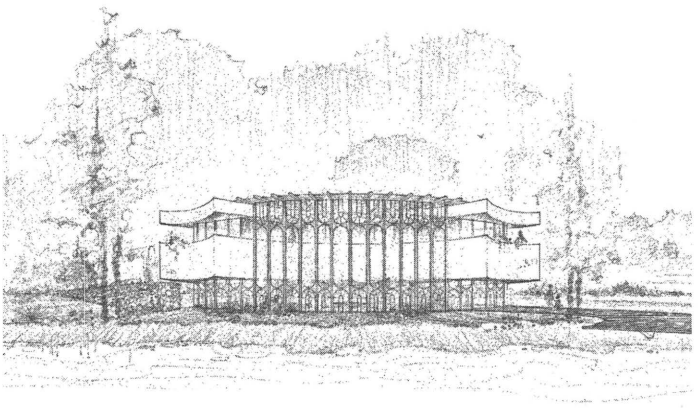


Fig. 7. **Albert Ledner**, *Galatoire Residence*, New Orleans, Louisiana, 1964. Front elevation

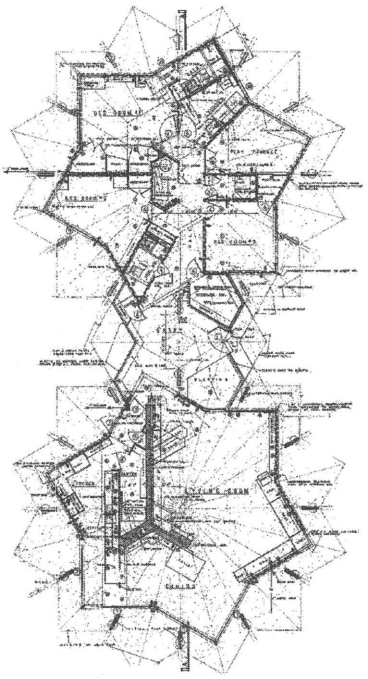


Fig. 8. **Albert Ledner**, *Ledner Residence*, New Orleans, Louisiana, 1955. Floor plan

traditional, suburban street *(fig. 8)*. He used glazing and sliding glass doors to enclose the structure, allowing uninterrupted access to the outdoors from all parts of the house. The open floor plan and interior details—including a small garden, a mirrored wall, unfinished wood paneling and built-in furniture—are reminiscent of Ledner's other organic residences.[12] While none of Ledner's New Orleans residences seemed part of a larger continuum of American postwar architecture, their plans and concepts reflected the new ideals of the American home. His architecture's structural forms, exterior aesthetic choices and details set his work apart from the other modern buildings in New Orleans and give them special significance.

AS MUCH of Ledner's work approaches the fifty-year mark, his buildings deserve to be recognized in the body of modern architecture preserved in this country. His legacy as an organic architect in the Southeast region of the United States, as well as his projects, are vibrant examples of larger architectural themes in the mid-twentieth century and the modern movement in America.

LINDSAY McCOOK *is a recent graduate of the Master of Science in Historic Preservation Program at Columbia University. While there, she wrote her thesis on the work of Albert Ledner. She now resides in New Orleans, Louisiana and attends Tulane University as a student in its Master of Architecture program.*

BIBLIOGRAPHY

American Institute of Architects: New Orleans Chapter. *A Guide to New Orleans Architecture*. Chairman Albert C. Ledner. New Orleans: American Institute of Architects, New Orleans Chapter, 1974.

BROOKS, H. ALLEN. *Frank Lloyd Wright and the Prairie School*. New York: George Braziller, Inc., 1984.

HESS, ALAN, AND ALAN WEINTRAUB. *Organic Architecture: The Other Modernism*. Layton: Gibbs Smith, 2006.

LEMANN, BERNARD, MALCOLM HEARD, JR., AND JOHN P. KLINGMAN (eds.). *Talk About Architecture: A Century of Architectural Education at Tulane*. New Orleans: Tulane University School of Architecture, 1993.

"Two hiring halls." *Architectural Forum* 105 (September 1956): 143.

WRIGHT, FRANK LLOYD. *The Future of Architecture*. New York: Horizon Press, 1953.

NOTES

1 Bernard Lemann, Malcolm Heard, Jr., and John P. Klingman, *Talk About Architecture* (Tulane University: New Orleans, 1993), 99.
2 H. Allen Brooks, *Frank Lloyd Wright and the Prairie School* (George Braziller, Inc: New York, 1984), 10.
3 Albert Charles Ledner, telephone interview (August 11, 2008).
4 Lemann, *Talk About Architecture*, 118.
5 Albert Charles Ledner, Lecture on "Regional Modernism" (Tulane University: The New Orleans Archives, April 1, 2008).
6 Ledner (August 11, 2008).
7 Ledner, "Regional Modernism."
8 Albert Charles Ledner, personal interview (January 6, 2009).
9 Ibid.
10 Ledner (January 5, 2009).
11 Ibid.
12 Ibid.

Elie Azagury Modernism and Métissage

CABO NEGRO TOURIST RESORT

AZIZA **CHAOUNI**

Elie Azagury, a central figure of the twentieth-century Moroccan architectural scene, was among the first generation of Moroccans to be trained in Metropolitan France. He studied at the École des Beaux-Arts under Auguste Perret in the early 1940s, and then, escaping World War II, worked for Ralph Erskine in Sweden.

UPON HIS RETURN to Morocco, Azagury held a number of key positions, such as member and subsequently president (1951–1956, 1956–1959) of Group Gamma, the Moroccan branch of CIAM, and president of the Moroccan Order of Architects (1958–1971). Throughout his career, he traveled extensively, meeting legendary figures such as Mies van der Rohe, Oscar Niemeyer, and Le Corbusier. Azagury never stopped working until he passed away at age 90 in January 2009, leaving behind him an eclectic legacy ranging from public buildings such as affordable housing complexes and hospitals to private homes, furniture and art pieces. Most importantly, Azagury played a crucial role in initiating the unique language of *métissage* that defined post-independence Moroccan modernism, setting it apart from the more typical, uncritical adoption of either western models or vernacular pastiche.

AZAGURY'S TOURIST RESORT Cabo Negro, commissioned by the Société Africaine du Tourisme in 1964 and designed after a preparatory Mediterranean tour, was his first and most poignant attempt at investigating *métissage (fig. 1)*. The project in fact articulated a turning point in Morocco's post independence modernism that was heretofore characterized by a language imprinted with Corbusian functionalism, Japanese brutalism, and Team Ten's discourse, yet its 'situationism' remained timid, limited to the use of shading devices and the integration of local crafts such as woodwork and mosaics. Azagury's tourist resort took this nascent process of hybridization one step further, as its architecture went beyond simply referencing local architectonic elements and acknowledging Morocco's climate, but rather embraced vernacular architecture and urban form from both shores of the Mediterranean. This unusual cross-pollination reveals a new facet of the influence of the Mediterranean milieu on modernism. Existing literature, if it recognizes the key role the Mediterranean vernacular played in shaping the theoretical discourse and physical projects of the modernist movement,[1] only focuses on North-North or North-South influences within the Mediterranean basin, as illustrated by the research on Le Corbusier's Algerian work by Zeynep Celik[2] or José Luis Sert's Maeght Foundation by Jan K. Birksted.

C'EST EN 1964 QUE LA SOCIÉTÉ AFRICAINE DU TOURISME COMMANDE UN COMPLEXE HÔTELIER À ELIE AZAGURY, DANS LE NORD DU MAROC. AZIZA CHAOUNI ANALYSE CE QUI A CONDUIT LE PÈRE DE L'ARCHITECTURE MODERNE MAROCAINE À LIBÉRER CELLE-CI DES INFLUENCES OCCIDENTALES ET VERNACULAIRES POUR INITIER SON « MÉTISSAGE ». AU-DELÀ D'UNE ARCHITECTURE PROPRE AU MAROC DE L'APRÈS-INDÉPENDANCE, ELIE AZAGURY A PERMIS LA CONCEPTUALISATION D'UN MODE DE VIE VACANCIER MAROCAIN, INCARNÉ PAR LE PROJET DU CABO NEGRO. L'AUTEUR REVIENT SUR CETTE RÉVOLUTION ARCHITECTURALE MAROCAINE, À PARTIR DE SES ENTRETIENS AVEC ELIE AZAGURY ET DE L'ANALYSE SES ARCHIVES PERSONNELLES.

BASED ON INTERVIEWS with Azagury and research in his personal archives, this paper will attempt to understand not just how his Mediterranean tour influenced his conceptualization of leisure architecture and vernacular Mediterranean forms, but also how his final projects shaped the Moroccan modernization project. The cross-fertilization which resulted from Azagury's cruise challenges notions of derivative hierarchies between countries and regions, and at the same time sheds light on a new turn of Moroccan post-colonial modernism, one that integrates local specificities through a reinterpretation of Mediterranean culture.

TOWARDS A GEOGRAPHICAL REFERENT: MOROCCAN MODERNISM DISCONNECTED FROM THE POLITICAL GEOGRAPHY OF COLONIALISM

When freed from the colonial discourse and its segregative practices, the Moroccan modernist movement became a platform where architectural hybridity was a totalizing concept, since it was a response in line with the search for a new Moroccan identity that the young leaders imprinted with ideas of progress and locality.

However, during the first years following independence, this political attitude towards hybridity was ambiguous: if the young state was clear on its desire to align with western economic and social modernizing efforts, it was still trying to define its identity amid its multi-ethnic population that included Arabs and dozens of Berbers tribes. As a result, Moroccan architects tended to embrace specificities of locality and vernacular only timidly. Azagury's post-independence work, for instance, was in essence brutalist with some tentative references to the Moroccan context in his use of local materials and brise-soleil. Nevertheless, a clear search for a modern yet Moroccan architectonic language was underway, as demonstrated by numerous essays in the country's first architecture magazine, *A+U*.

ONE OF THE MOST SIGNIFICANT outcomes of this shedding of the colonial mantle was the introduction of western typologies such as holiday resorts to the Moroccan population, creating a fertile field for possible hybridization. Another outcome was the complexity of the local architectural referent. The colonial discourse tended to simplify the reference to the medina, or at best to the Southern Kasbah from which slum dwellers in Casablanca were erroneously believed to come from. The multiplicity of the local referent after independence stemmed from Morocco's wish to acknowledge the diversity of its regional specificities, an attitude which preceded the homogenizing Arabic identity propaganda. The Cabo Negro project marked this new phase in Moroccan modernism, with its referent extending to the existing Moroccan Mediterranean shore and to a larger Mediterranean context. More precisely, in the course of generating a more situated modernism, its local referent shifted from one based on culture and religion to one based on geography, where climate and topography were major shaping forces.

THIS CRUCIAL methodological change is illustrated by Azagury's preparatory travel to Greece, on request of his client the Société Africaine de Tourisme. Fresh from his trip to Brazil where he had met Niemeyer and Burle Marx,[3] Azagury was clearly in search of local sources of inspiration, rather than the Spanish standardized *urbanizaciones* projects which were sprouting everywhere on the Costa del Sol, and would prove to be a failure. For the first time, European architecture was not reduced to the international style, but its vernacular was examined, albeit in an abstracted fashion. In fact, Azagury engaged the architecture and urban form of the Greek Islands with an analytical approach. He was interested in the nature of architectural experience "unmediated by a priori constructs." Azagury's depictions of those villages are ethereal sketches capturing the essence of the moment, omitting all but what seemed essential. In that sense, like Le Corbusier's *Voyage d'Orient* sketches, Azagury denied representation as an end in itself. Informed by seeing rather than viewing the world, his sketches bear testimony to a continuous and desperate exploration of an ever-elusive

Fig. 1. **Elie Azagury**, *Cabo Negro Tourist Resort*, 1964–1968. Main plaza, Hotel Le Petit Mérou

reality. Drawing in this way, never complete, was merely a vehicle to think and understand.
From his investigative journey, Azagury returned with an interpretation of universal Mediterranean characteristics which he defined as being "sensitivity to topography, urban unity and closeness to nature."

MEDITERRANEAN TRANSFERS: ABSTRACTING GEOGRAPHY

Regarding *topography*, Azagury was fascinated by the massing of Greek villages that gracefully followed the terrain, a motif which he had already marveled at in the village of Chaouen, located on the Moroccan Mediterranean shore, 50km away from the Cabo Negro site. Banishing cars and relying on pedestrian paths only, coupled with the limitation of the unit to one level, alike, was intended to be readily consumed by the "tourist gaze."[4] The ambiguous role given to architecture, as being both nature and construct, "civilization and its antidote,"[5] is symptomatic of 1960s holiday literature rhetoric, and denotes a wish to present leisure resorts as an exotic experience also offering modern comfort.

THE SECOND ELEMENT captured by Azagury during his tour was the *unity of the urban form*. Azagury noted that the unity of those villages was not created by the repetition of the same standardized unit, but rather by the organic growth of singular, cubic elements that had common qualities in scale, material and proportions. By the term "organic," Azagury stressed that he meant the development according to the site's natural conditions, namely topography, light, wind and views. His sketches

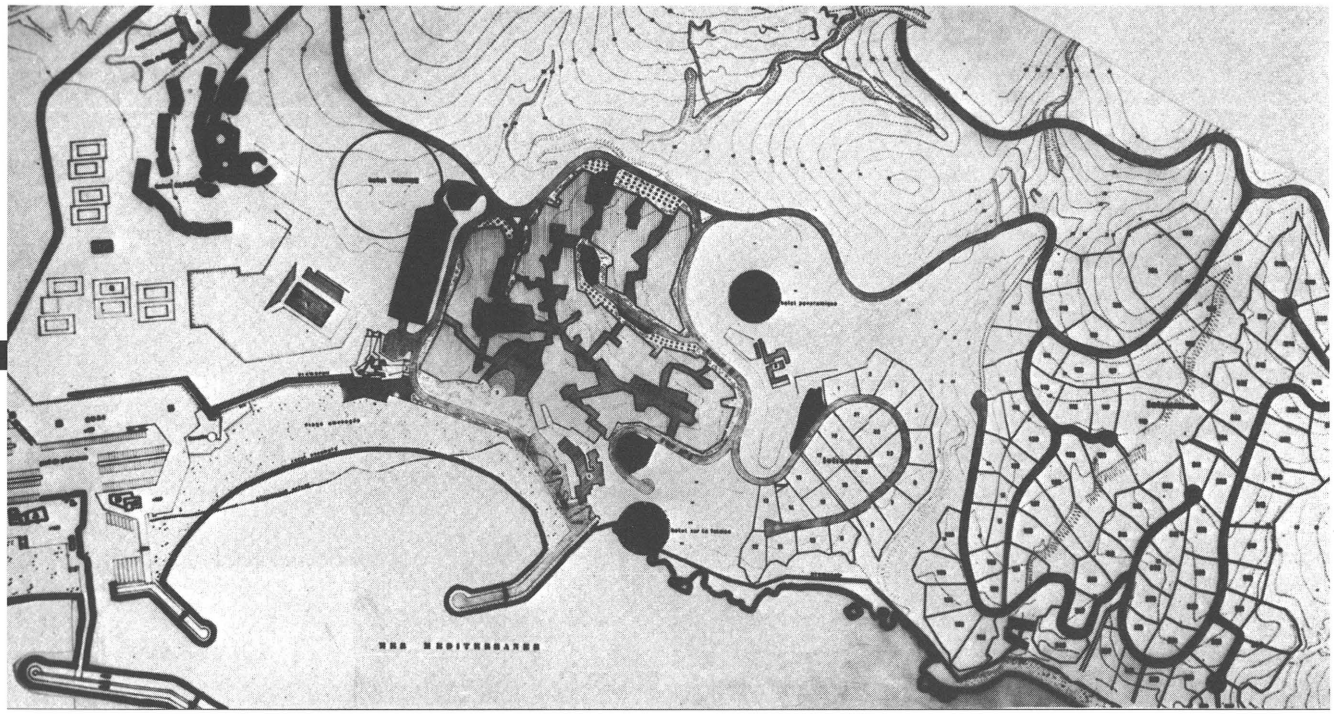


Fig. 2. **Elie Azagury**, *Cabo Negro Tourist Resort*, 1964–1968. Plan of the complex including from left to right the areas reserved for villas, the tourist village and the international hotel

contributed to the integration of the complex with its topography. Negotiating the steep slopes of the site was achieved by the introduction of narrow pedestrian pathways articulated by small plazas *(fig. 2)*. In the zone reserved for villas, and requiring car access, Azagury devised sinuous roads that perfectly followed the contours of their forested hill site. Similarly, the hotel was set up in bands that gently hugged the slope. When viewed from the sea, the Cabo Negro topography is in sync with the existing rocky cape *(fig. 3)*. The built form of the tourist ensemble is treated as a landscape in its own right, which was posited to contrast with the non-natural urban realm that represented 'work time.' Hence, this architecture, given a paradoxical position as a romanticized *front de mer* by holiday brochures and architecture magazines of Greek village streets, always drawn as fragments, are translated in Cabo Negro into an architectural promenade, constantly changing yet retaining fixed leitmotifs: white washed walls, narrow streets and views towards the sea. In Cabo Negro, Azagury tried to emulate these qualities to create an ensemble which offered unity without restraining the multiplicity of spatial experiences. In order to establish organic unity, Azagury designed pedestrian pathways with similar widths of 1 to 1.5 meters, and all units with whitewashed walls and blue doors and apertures (a palette both present in Greece and in Northern Morocco). Also, Azagury consistently used the same materials throughout the complex: wood beams for terrace and balcony roofs and railings, wooden shutters and Moroccan mosaics *(fig. 4)*.

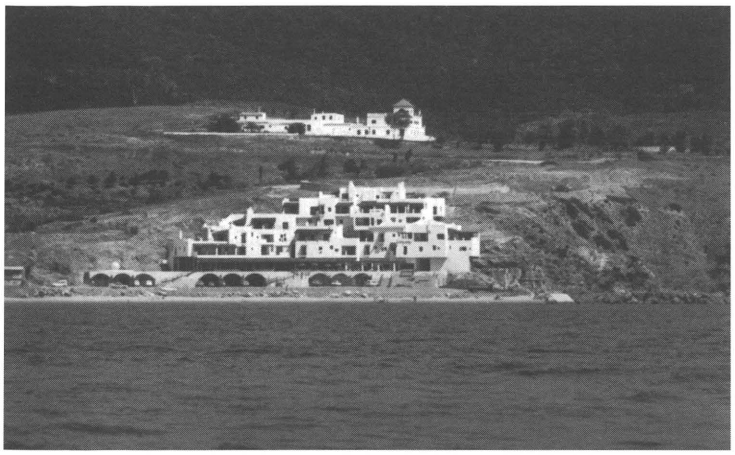


Fig. 3. **Elie Azagury**, *Cabo Negro Tourist Resort*, 1964–1968. View of the first phase of the tourist village (18 houses completed)

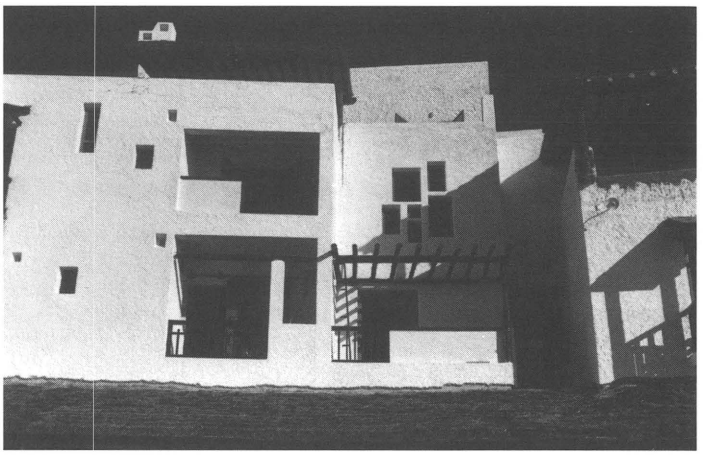
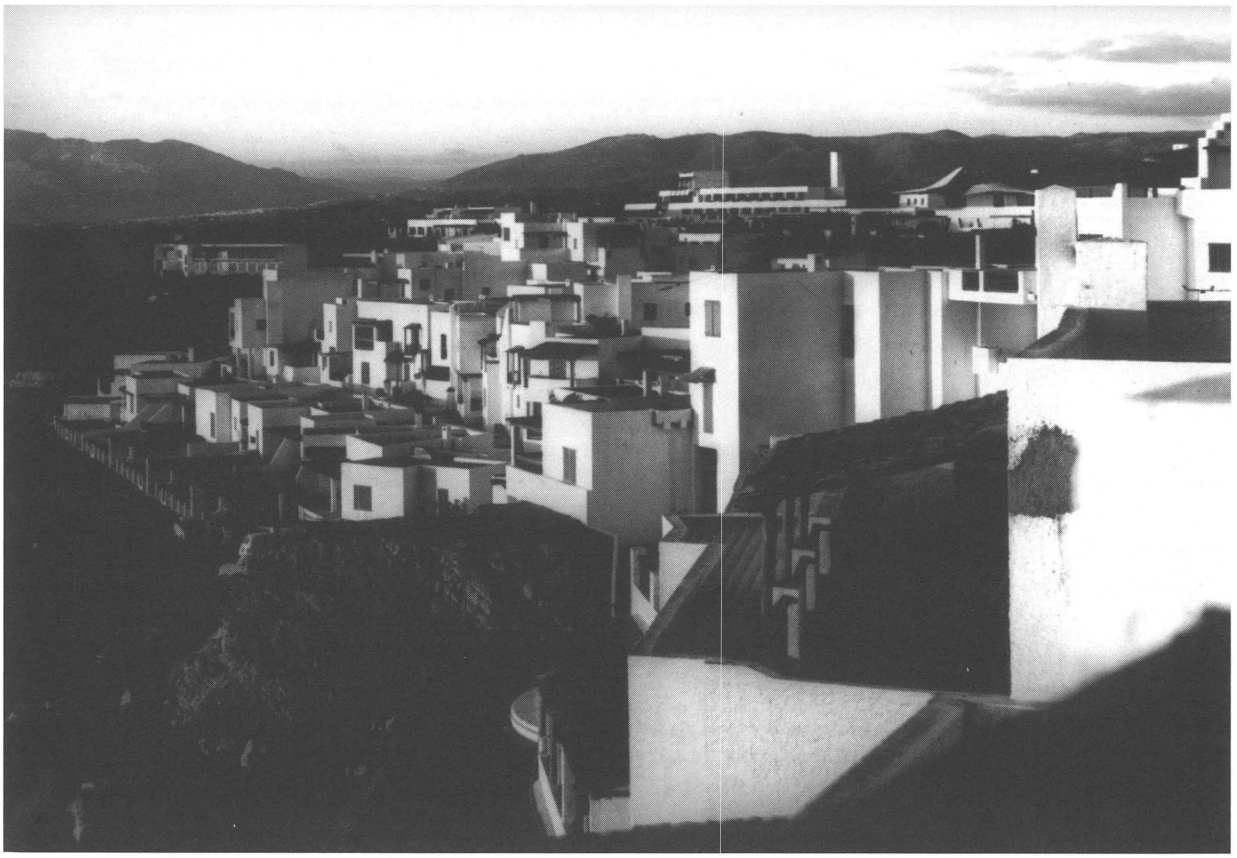


Fig. 4. **Elie Azagury**, *Cabo Negro Tourist Resort*, 1964–1968. Façade

THE ORGANIC AGGREGATION effect is carefully constructed. After many iterations for unit shapes and clay study models, Azagury carefully designed modules, which are each unique yet following similar prospective rules. For instance, he only resorted to three room sizes, two kitchen sizes, and one corridor size, while the living room and terraces varied in dimensions in order to accommodate the best view and appropriate the closest terrace. The apartments varied from studio to one, two and three bedroom apartments, all of which were devised on a 2 x 2m grid. Even the corridors and rooms of the hotel, located at the bottom of the complex, follow similar rules. The result is a tourist complex that offers a forever-changing architecture, emerging from the same DNA. To better control this unity, Azagury concealed the villas, which each had their own architect and formal vocabulary, by placing them on a forested hill, whose trees could not to be destroyed.

AZAGURY'S INTEREST in organic urban aggregation is as much rooted in the vernacular Mediterranean architecture he encountered during his tour as to the prevalent 1960s discourse on urbanism. The organic accumulation of Cabo Negro's units *(fig. 5)*, conceived as cells with similar yet varying units, reminds us of Archigram's Walking City and of the Japanese metabolist

Fig. 5. **Elie Azagury**, *Cabo Negro Tourist Resort*, 1964–1968. View of the complex



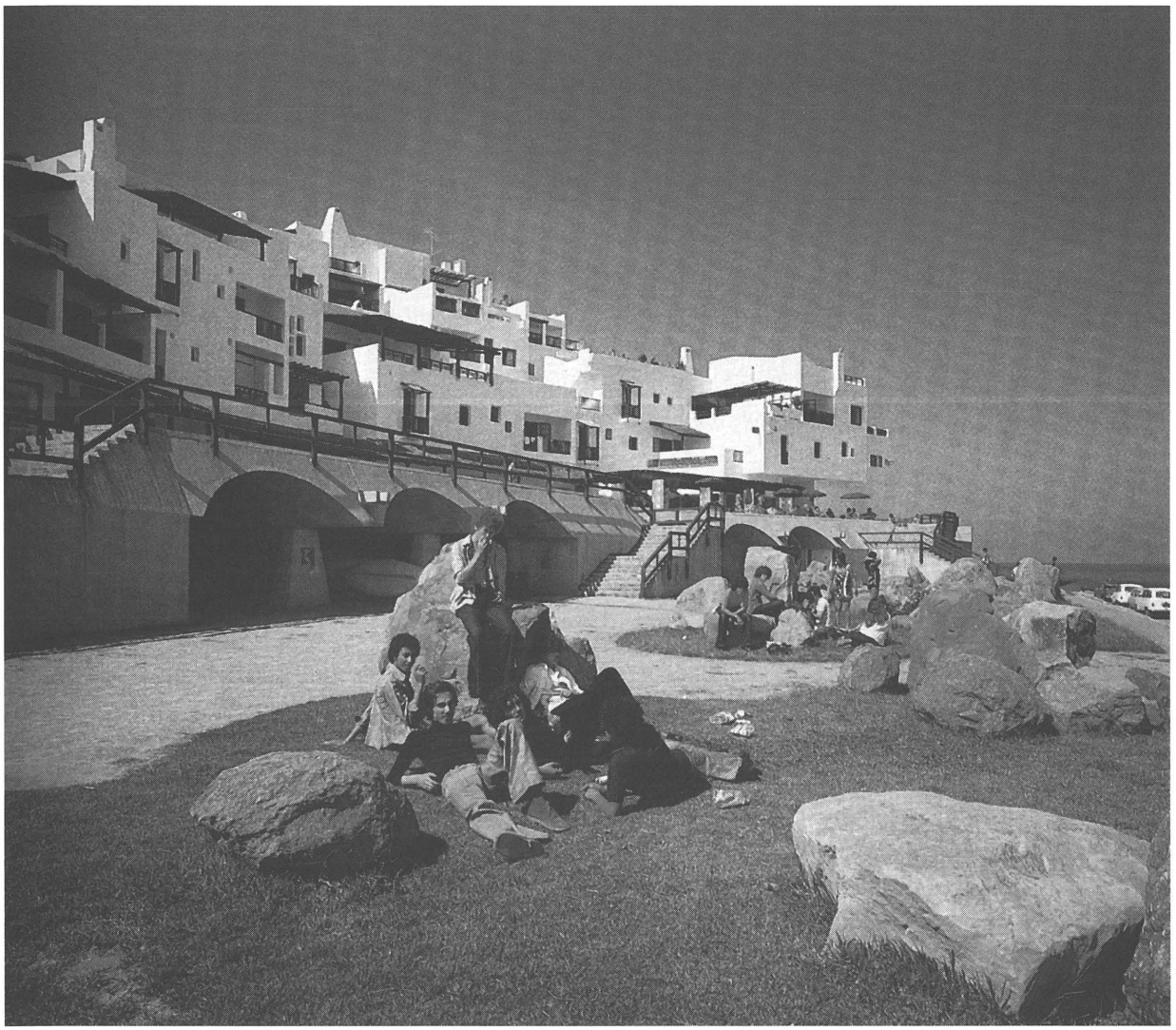


Fig. 6. **Elie Azagury**, *Cabo Negro Tourist Resort*, 1964–1968. View of the complex's public garden

discourse on urbanism, both of which Azagury was familiar with thanks to his subscription to *Architectural Record*. However, Azagury was never interested in growth, flexibly or change, which were the quintessential concepts for the aforementioned projects. In a certain regard, Azagury probably missed a potential embedded within Cabo Negro's modular system. Since his project's expansion occurred on nearby sites rather than an addition to his existing projects, the results were disappointing: they were executed by other architects who followed the set rules, but lacked Azagury's sculptural sensibility. Habitat 67 by Moshe Safdie, which opened a year before Cabo Negro's first eighteen phase-1 houses, is reminiscent of this project both in its composition and, likewise, in its main shortcoming, which did not allow for growth.

INTEGRATION with nature is the third key element that Azagury brought from his Greek Islands tour and integrated into his Cabo Negro project. Azagury stressed that the immediate connection to nature was an intrinsic characteristic of Mediterranean architecture. Azagury generated this connection by ensuring a view towards the sea for each apartment's living room and terraces and from most of the public plazas that are interwoven with the project's pedestrian network. Terrace space was maximized by frequently using the roof of units as terraces for the units above, a solution similar to Safdie's Habitat 67. Azagury used the units' varying shapes to choreograph views towards the sea but also towards the landscape weaving through the project. In fact, Azagury left a lot of the native flora in place. In addition, because he wanted to ensure the substance of greenery within the project, he planted new plants, especially succulent species that require little water and maintenance. Azagury also turned large stone remnants from the leveling of the site into sculptures and children playgrounds. The large rocks were placed on the green area that transitioned between the public services and plaza area and the beach, creating a gentle threshold between the built area and the ocean. The integration of the site landscape also occurred in Cabo Negro in a conspicuous manner: large rocks were left untouched; the architecture seemed to emerge from the landscape. Occasionally, apartment units were placed in immediate proximity to the bedrock, as in the case of this unit's

terrace allowing the user to be constantly in touch with the landscape *(fig. 6)*. Finally, planters designed by Azagury were scattered throughout the complex, bordering apartments and main circulations.

SHAPING THE MOROCCAN NEW NATION: REDEFINING LEISURE

By being one of the first tourist resorts to be developed for Moroccans, the Cabo Negro project by Elie Azagury simultaneously reflected and forged the modern concept of leisure in post-colonial Morocco. In fact, Cabo Negro embodies the changes in Moroccans' concept of otium ("unproductive consumption of time"),[6] which shifted from family visits, countryside picnics, thermal bath visits, and religious celebrations and festivals (Moussems, marriages, circumcisions),[7] to one of paid holidays and associated free time to be consumed in an architecture and landscape of *dépaysement*.[8] But in contrast to the 1960s high-rise developments of the Spanish Costa del Sol and Southern France, Azagury proposed a model where exoticism was conveyed by an architecture inspired by a wider Mediterranean influence. More precisely, Cabo Negro's foremost innovation was the integration of programs into a harmonious whole, the tripartite project's programs (villas, apartments, hotels) subtly integrated with one another. This pioneering planning generated flexible and porous boundaries between foreigners staying in the hotels and the Moroccan apartment and villa residents, and also between Moroccans of different social classes, which in turn generated a vibrant community life *(fig. 7)*.

Thus, by materializing his vision of leisure and situated modernism, Azagury created a Moroccan holiday 'mode de vie,' where architecture promulgated a dialogue between residents and nature; a lifestyle which is perpetuated to this day, despite the project's alarming state of disrepair.

All figures are from Elie Azagury's private office archives. Azagury's office archives have been transferred to the archives of the Cité de l'Architecture et du Patrimoine in Paris. They are in the process of being sorted and made available to the public.

AZIZA CHAOUNI, *architect and engineer, is the principal of the design firm Bureau E.A.S.T. (Los Angeles, Toronto and Fez, Morocco). Aga Khan Visiting Fellow at the Harvard Graduate School of Design (2006–2007), she is currently an assistant professor at the University of Toronto, Daniels Faculty of Architecture, Landscape and Design. Chaouni is the director of the research board of Docomomo Morocco. Her research on architect Jean-François Zevaco will be published in a book,* Detailing Modernism, *with the support of a Graham Foundation grant and the Archilab Center in Orleans. Chaouni's longtime friend and mentor Elie Azagury passed away in January 2009, while she was researching for this article.*

BIBLIOGRAPHY

BERRIANE, MOHAMMED. *Tourisme National et Migrations de Loisirs au Maroc. Étude Géographique.* Tours: Université François-Rabelais, 1989.

BIRKSTED, JAN. *Modernism and the Mediterranean. The Maeght Foundation.* London: Ashgate, 2004.

CELIK, ZEYNEP. "Le Corbusier, Orientalism, Colonialism," in *Assemblage: a Critical Journal of Architecture and Design Culture* 17 (1992): 58–77.

COHEN, JEAN-LOUIS, AND MONIQUE ELEB. *Casablanca: Colonial Myths and Architectural Ventures.* New York: Monacelli Press, 2002.

COHEN, JEAN-LOUIS. "The Moroccan Group and the Theme of Habitat," in *Rassegna* 52 (1992): 58–67.

LEJEUNE, JEAN-FRANÇOIS, AND MICHELANGELO SABATINO. *Modern Architecture and the Mediterranean, Vernacular Dialogues and Contested Identities.* London: Routledge, 2009.

NOTES

1 On the topic of the Mediterranean and modernism, see Jean-François Lejeune and Michelangelo Sabatino, *Modern Architecture and the Mediterranean, Vernacular Dialogues and Contested Identities* (London: Routledge, 2009). Jan Birksted, *Modernism and the Mediterranean. The Maeght Foundation* (London: Ashgate, 2004). "Modernity and Modernism in the Mediterranean World," Conference at the University of Toronto, October 2003.

2 Zeynep Celik, "Le Corbusier, Orientalism, Colonialism," *Assemblage: a Critical Journal of Architecture and Design Culture* 17 (1992): 58–77.

3 Interview with Elie Azagury by author, Casablanca, December 2007. Azagury was impressed by Niemeyer's courage to embrace the curve, which he viewed as representative of Brazil's ethos.

4 John Urry, *The Tourist Gaze: Leisure and Travel in Contemporary Societies* (London: Sage Publications, 1990).

5 Ellen Furlough, "Packaging Pleasure. Club Méditerranée and French Consumer Culture, 1950–1968," in *French Historical Studies* Vol. 18, 1 (Spring 1993): 65–81.

6 Thorsten Veblen, *Théorie de la Classe de Loisir* (Paris: Gallimard, 1970).

7 Mohammed Berriane, *Tourisme National et Migrations de Loisirs au Maroc. Étude Géographique* (Tours: Université François-Rabelais, 1989).

6 Interview with Elie Azagury by author (Casablanca: December 2007).

Fig. 7. **Elie Azagury**, *Cabo Negro Tourist Resort*, 1964–1968. Interior view of the Hotel Petit Mérou

Boleslaw Kardaszewski
The Architect of Postwar Lodz

BLAZEJ **CIARKOWSKI**

Lodz is generally known for its eclectic and historical architecture of the nineteenth and twentieth century; sometimes major constructions from the interwar period are also mentioned. But buildings and designs created after 1945 are mostly forgotten, as if the last half of the century produced nothing but large panel system public housing estates. In fact, however, the city of Lodz reveals a vigorous postwar modernism, and, among a number of well constructed buildings, those designed by Boleslaw Kardaszewski (1931–2000) deserve distinction.

SI L'ARCHITECTURE DE LODZ SEMBLE DOMINÉE PAR L'ÉCLECTISME ET L'HISTORICISME DE LA FIN DU XIX^E SIÈCLE ET DU DÉBUT DU XX^E, UN REGARD OBSERVATEUR REMARQUE, AU-DELÀ DES STÉRÉOTYPES, UN PATRIMOINE IMPORTANT DE L'APRÈS-SECONDE GUERRE MONDIALE. PARMI DE NOMBREUX EXEMPLES, LES BÂTIMENTS DE BOLESLAW KARDASZEWSKI MÉRITENT UNE ATTENTION PARTICULIÈRE. CES ÉDIFICES DE LOGEMENTS ET DE SERVICES PUBLICS ASSOCIENT VISION ET SAVOIR-FAIRE ARCHITECTURAUX. L'ATTENTION PORTÉE À LA FORME ET AU DÉTAIL N'ÉTAIT PAS COMMUNE À UNE ÉPOQUE OÙ LES SYSTÈMES DE BÉTON PRÉFABRIQUÉ ÉTAIENT TRÈS POPULAIRES EN POLOGNE. AUJOURD'HUI, CES RÉALISATIONS FONCTIONNELLES ET VISUELLEMENT SÉDUISANTES SONT EN PASSE DE DEVENIR DES ICÔNES DU MODERNISME D'APRÈS-GUERRE À LODZ.

ALTHOUGH Kardaszewski never held the position of city architect, he was definitely the Architect of Modernism in postwar Lodz, as no other person during that period had more influence on the city's urban design than he did. He graduated from the Faculty of Architecture at the Technical University of Warsaw, under professor Bohdan Pniewski, and for many years afterwards was professor-lecturer at the Technical University of Lodz. As the principal architect in collaboration with others he designed mostly housing and public facilities.

AMONG THE LATTER type of project was the layout for the university district in the eastern part of the city. The design consisted in the construction of a multi-purpose building complex, while the already existing buildings were incorporated into a dense and rectangular grid. The design displays features which are typical of modernism, such as dividing functions in parallel and horizontal layouts, or using specific modules created on the basis of a detailed analysis of the mechanisms governing individual buildings as well as the entire district.[1] The project's scale did not however divert the architect's attention from individual buildings. Kardaszewski always paid great attention to shape and detail while also, interestingly, using prefabricated solutions in many of his designs. Although these were times of industrial developments in architecture, the projects produced by the Kardaszewski studio present uncommon technical innovation and attractive shapes.

© photo B. Ciarkowski

Fig. 1. **Boleslaw Kardaszewski**, **Ludwik Mackiewicz**, Building Center of Technical University of Lodz, Lodz, 1969–1975

THE PHYSICS AND CHEMISTRY Institute of Lodz (Kardaszewski, Wlodzimierz Nowakowski, Anna Wisniowska, 1973–1984) was built as a fixed grid system hosting rooms of flexible dimensions and purposes. Individual parts vary in height and size repeating the same module, which is characteristic of the entire plan. The system of reinforced concrete frame and spandrel beams, equipped with large glazed surfaces, is apparent and contrasts with the massive concrete lift-shafts.

VARIOUS BUILDINGS on the Technical University of Lodz campus designed by Kardaszewski were built on a prefabricated and reinforced concrete frame, known as the 'Lodzka frame,' based on a 300 x 350cm unit. This construction system has a repetitive, yet balanced rhythm, which emphasizes the simple, well-proportioned and very functional shape of the nine-story Institute of Architecture and Urban Planning. It was also used for the construction of the Building Center *(fig. 1)*, which differs from the Institute in that it is a low-rise and extensive building (Kardaszewski, Ludwik Mackiewicz, 1969–1975). The building is located around two inner patios. The entrance runs under a massive cubic construction containing the lecture auditoriums. The windowless front wall's texture, not unlike that of undressed concrete, is vertically grooved. Its volume harmonizes well with the repetitive rhythm of concrete posts and beams visible in the elevations. The entire design, consisting of basic shapes emanating a kind of monumentality, is reminiscent of brutalist constructions. This impression stems not from Kardaszewski's design but from economical restrictions: the original project's front elevation and windowless wall were meant to be covered with ceramic and clinker facing, which turned out to be too costly.[2]

KARDASZEWSKI did, however, apply this particular facing to another building he designed, the Academy of Fine Arts (Kardaszewski, Wlodzimierz Nowakowski, 1971–1975) *(fig. 2)*. Situated on a steep slope and surrounded by greenery, it was destined to be a landmark for people entering the city from the north-east direction, owing to which it could not be laid out on a classic horizontal and parallel plan. Thus, Kardaszewski designed a building with a centrally situated administration and common rooms (i.e. lecture rooms), and individual faculties located around the core structure.[3] Various materials used during the construction, such as steel and oak timber for the curtain walls and reinforced concrete for the solid elements, are still visible in the elevation. Ceramic brick is apparent in the façades with staircases. The sculpture-like shape of the building blends into the surroundings, while simultaneously being a distinct feature of the city.[4]

BESIDES university building projects Kardaszewski designed industrial storehouses, housing and office buildings. One of the more prominent projects is Dom Chlopa in Lodz (1969–1972), a twelve story office building which façades are composed of alternating horizontal stripes of concrete and glass, of various widths. A similar design was used for a multi-family building at 10-lutego street (Kardaszewski, Maria Heiligowa, 1967–1970), where the rhythm of horizontal window openings and balconies matches the increasingly receding layout, resulting from the chosen typology, according to which the pairs of apartments located symmetrically on either side of the central hallway are gradually smaller *(fig. 3)*.[5]

TODAY, after barely a couple of decades of use, these buildings are in greatly varying states. The Academy building, recently renovated, is in the best shape. The restoration involved new windows, renewed plaster dressing and cleaned bricks, all of which look very modern. Unfortunately the surroundings, which according

© photo B. Ciarkowski

Fig. 2. **Boleslaw Kardaszewski**, **WLodzimierz Nowakowski**, *The Academy of Fine Arts*, Lodz, 1971–1975

ONE OF KARDASZEWSKI's last designs, a complex of two multi-family buildings with shops on the ground floor on Zamenhofa street, known as "Bolek and Lolek" (Kardaszewski, Joanna Olenderek vel Matuszewska, 1979–1986), is of an entirely different nature *(fig. 4)*. Located in the historical center of Lodz, city regulations prevented it from dominating the area with its height, as in the previous examples. The architects therefore designed a low-rise building development which, thanks to its limited height and carved walls, is well integrated with the environment of nineteenth century tenements. Its simple modernist design, enhanced by a selective use of timber in elevations, as well as metal roofing, complements the eclectic neighboring buildings in an interesting manner. Despite different shapes and resources from those used in the "Bolek and Lolek" complex, and built with the use of appropriate prefabricated technology, it became an important part of the city.

to the design are an integral part of the project, have not been restored. The renovation of the University complex also seems satisfactory. So far repairs have included fitting new windows, renovating the laboratory wing, and in the future, some re-insulating. Regrettably, the Chemistry and Physics Institute has lost its original character after recent polystyrene insulation on the outside; it was then covered with plaster and painted bright yellow, neither of which are in keeping with the design's shape and character. Renovation performed on the warehouse at Jaracza street has also altered the building. On the other hand, the dwellings, which are in

a commendable condition, should not be renovated, but their character is changing owing to the actions of individual owners, such as the walling off of balconies or windows, or changes of balustrade.

KARDASZEWSKI'S DESIGNS, despite the passing years and various conditions, exert a powerful influence on the viewer. They are neither modern nor fashionable; they do not follow currently popular designs. They are, however, a perfect realization of modernist values, enriched with the designer's character and experience. They are modern in their timeless design, and, as such, should be protected for their cultural heritage value.

Blazej Ciarkowski
under the direction of Joanna Olenderek

BLAZEJ CIARKOWSKI, *MsC Arch from Institute of Architecture and Urban Planning, Technical University of Lodz, is an architect currently employed at the office of the Municipal Monuments Conservator of the City of Lodz. In parallel, he is working on his PhD thesis on "Avant-garde and postwar modern architecture in Lodz," under the supervision of Professor Joanna Olenderek. Besides modernism his fields of investigation are in particular the renovation of large panel system housing estates and vernacular architecture.*

JOANNA OLENDEREK, *member of Docomomo Poland, is the vice-dean for Educational Affairs at the Faculty of Civil Engineering, Architecture and Environmental Engineering and deputy head of the Institute of Architecture and Urban Planning, Technical University of Lodz, where she has been teaching and working—among others, under Boleslaw Kardaszewski—since 1978. She has written over 30 publications on modernism, the renovation of the urban area, the design of sport facilities, and was awarded the Art and Culture Minister award for her doctoral thesis "Most Needed Housing in Lodz of the Second Polish Republic."*

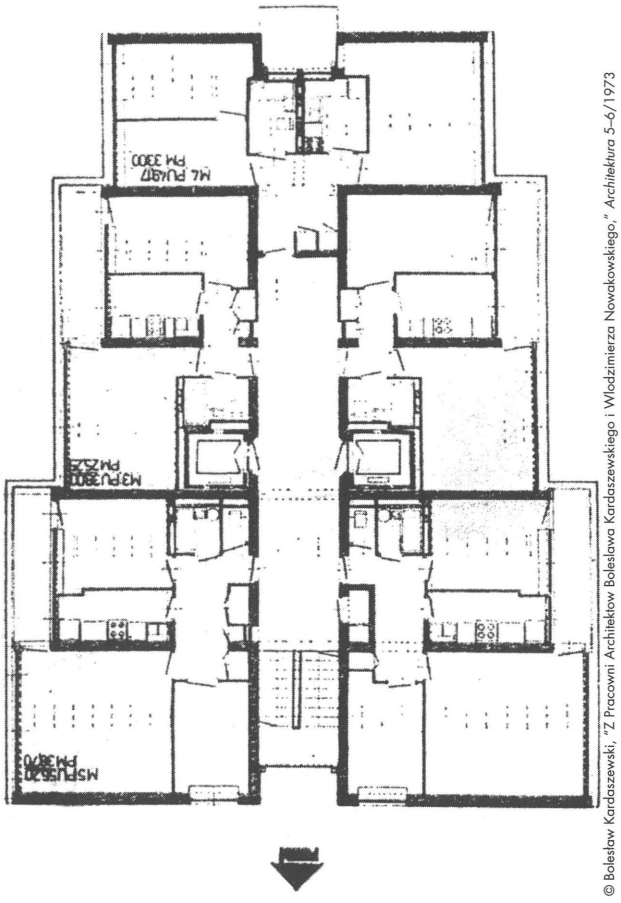
BIBLIOGRAPHY

KARDASZEWSKI, BOLESLAW. "Dzielnica Wyzszych Uczelni w Lodzi. Instytut Fizyki Uniwersytetu Lodzkiego," *Architektura* 1/1986.
KARDASZEWSKI, BOLESLAW. "Z Pracowni Architektow Boleslawa Kardaszewskiego i WLodzimierza Nowakowskiego," *Architektura* 5–6/1973.
OLENDEREK, JOANNA. *Polityka Ochrony Dobr Kultury Wspolczesnej w Lodzi. Opracowanie Studialno – Koncepcyjne*. Lodz: Technical University of Lodz, 2007.
SZAFER, TADEUSZ P. *Nowa Architektura Polska. Diariusz lat 1971–1975*. Warsaw: Arkady, 1979.
SZAFER, TADEUSZ P. *Nowa Architektura Polska. Diariusz lat 1976–1980*. Warsaw: Arkady, 1981.

NOTES

1 Boleslaw Kardaszewski, "Dzielnica Wyzszych Uczelni w Lodzi. Instytut Fizyki Uniwersytetu Lodzkiego," *Architektura* 1/1986: 73–80.
2 Boleslaw Kardaszewski, "Z Pracowni Architektow Boleslawa Kardaszewskiego i WLodzimierza Nowakowskiego," *Architektura* 5–6/1973: 215–222.
3 Joanna Olenderek, *Polityka Ochrony Dobr Kultury Wspolczesnej w Lodzi. Opracowanie Studialno – Koncepcyjne* (Lodz: Technical University of Lodz, 2007).
4 Tadeusz P. Szafer, *Nowa Architektura Polska. Diariusz lat 1976–1980* (Warsaw: Arkady, 1981).
5 Tadeusz P. Szafer, *Nowa Architektura Polska. Diariusz lat 1971–1975* (Warsaw: Arkady, 1979).

Fig. 3. **Boleslaw Kardaszewski**, **Maria Heiligowa**, Multi-family building at 10-lutego Street, Lodz, 1967–1970. Ground-floor plan



© Boleslaw Kardaszewski, "Z Pracowni Architektow Boleslawa Kardaszewskiego i Wlodzimierza Nowakowskiego," *Architektura* 5–6/1973

Fig. 4. **Boleslaw Kardaszewski**, **Joanna Olenderek vel Matuszewska**, "Bolek i Lolek" Multi-family Building in Zamenhofa Street, Lodz, 1979–1986

© photo B. Ciarkowski

Connell Ward and Lucas Men from MARS?

DENNIS **SHARP**

In the early 1930s, as in other cities in Europe, London witnessed a long-standing battle between architectural traditionalists and modernizers. This preceded the wider acceptance of the international style of modern architecture that was taking place on the continent of Europe.

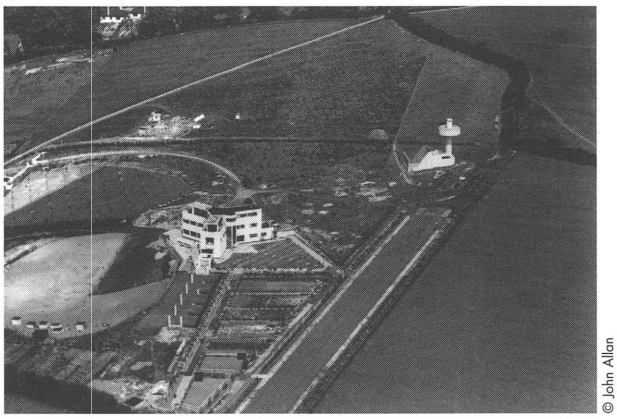
ALORS QUE LE LONDRES DES ANNÉES 1930 EST PLONGÉ DANS LA BATAILLE OPPOSANT ARCHITECTES TRADITIONNES ET MODERNES, AMYAS CONNELL ET BASIL WARD, ARRIVÉS DE NOUVELLE-ZÉLANDE EN 1924, IMPOSENT UNE ARCHITECTURE DES PLUS FIDÈLES AU MODÈLE DE LE CORBUSIER. AU DÉPART TRÈS CONTROVERSÉS, CONNELL ET WARD – REJOINTS PAR COLIN LUCAS EN 1934 – VONT NÉANMOINS INFLUENCER ET BOULEVERSER À LA FOIS L'ARCHITECTURE BRITANNIQUE ET SON MILIEU CULTUREL.

CONNELL AND WARD, who were joined in practice in 1934 by Colin Lucas, were very much involved in the movement of which Sir Herbert Read, the renowned advocate of modern art and design, was still warning the nation in 1940 "that the presentation of a logical aesthetic for modern architecture is quite useless." Brits he claimed "had a widespread inability to perform any mental operation involving intellectual abstraction!" CW&L—as we shall call them from now—were deeply committed to the new architectural aesthetic expressed by Le Corbusier in his early domestic work and his influential writings. Ward recalled the words of Le Corbusier, read in the 1920s, as "an inspiring call to action . . . they left an indelible impression;" and further "we were part of the modern movement."

ONE OF THE MAIN COMPLAINTS Le Corbusier had with traditionalists was set out in his influential book *Vers une Architecture* (Paris, 1923; English translation: 1927): "architects still only use windows . . . which shut badly, have tiny panes and are difficult to open." He reminded architects that "A house is made for living in." It needed to be different from houses of the past, a point he underlined with designs for a number of experimental 'functional' houses in France and a provocative Pavillon de l'Esprit Nouveau at the 1925 Art Deco exhibition in Paris. Le Corbusier set out to revolutionize the house as an efficient "machine for living," the international design solution to which he set out on the Weissenhof in Stuttgart at the housing exhibition held in 1927.
Nowhere were these models more closely followed in England than in the experimentally radical buildings of CW&L in the South East of England. They had seen the Pavillon and were soon to inculcate the new house aesthetic based on the modernist principle of "Light, Sun and Air." This involved a different spatial and constructional realm to that of classical architecture—which CW&L knew well as they had trained in the Beaux-Arts tradition—rejecting historical references and adopting basic Phileban geometrical solids. These included rectangles, cubes, cones and surfaces as unornamented and flat as billiard tables. Long strip windows were introduced and open staircase towers featured in the designs based on structural grids that were independent of the walls. Glass and reinforced concrete were the preferred materials.

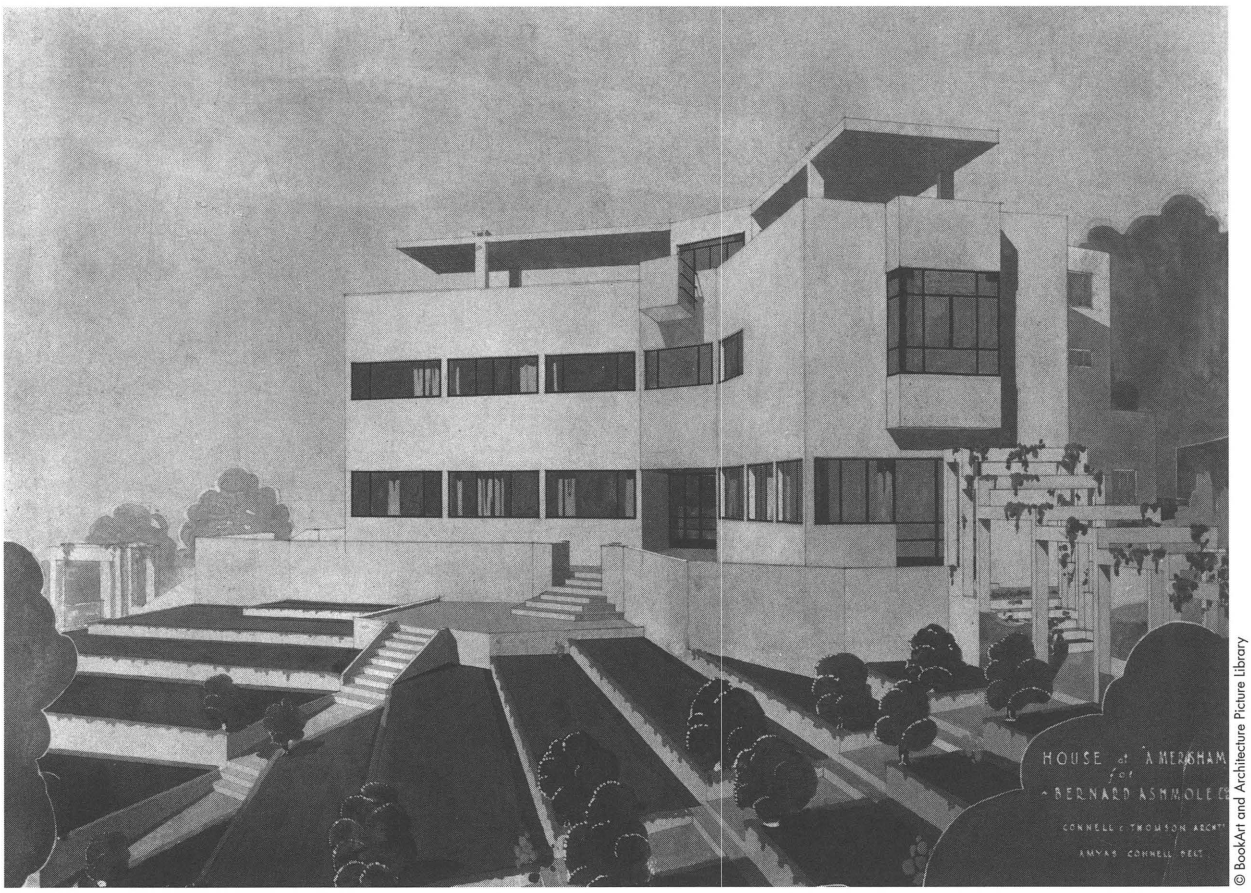
AS EARLY AS 1929 Connell was to start erecting a house called "High and Over" along these principles, on a hill outside the suburban town of Amersham. The house was nearly complete in 1930 when *The Architect and Building News* heralded the arrival of "the first truly modern building" in England: "One has dreamed of the

ultra-modern house in England. Will they build houses like that in our countryside? Of course it's all right for France . . . And yet here it is, or about to be. The blow is falling; prepare to meet the shock!" The shock vibrated throughout the architectural establishment, and the house caused fierce controversy. With its sun-seeking pin wheel plan 'the house' confused the local authority and its planners, who hated the way it looked and also attempted to condemn it by starving the site of water—this eventually failed. When the house was completed, other commissions followed in the Home Counties and one fine example as far way as Bristol. Today there are about 14 extant examples, most of which have now been listed. "High and Over" is Grade One monument which puts it on a par with Buckingham Palace and Blenheim! So who were these alien 'outsiders'? Amyas Connell (1901–1980) and Basil Ward (1902–1978) were



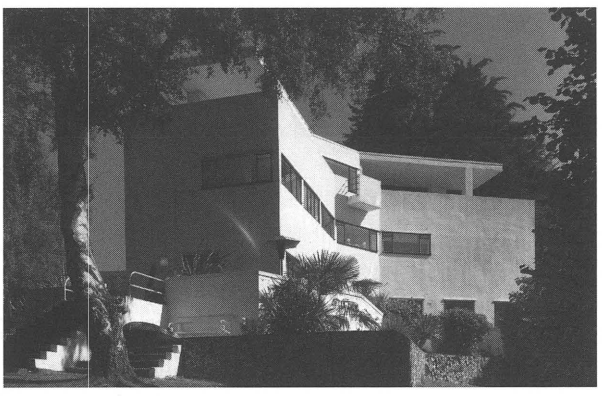
© John Allan

Figs. 1, 2 & 3. The first house designed by Amyas Connell was situated on a large tract of land outside Amersham on the Hill. Its 'Y' shaped plan has been described by some as the last of the great villas or the first of the new breed of functional houses. It was greeted incredulously by the *Architect and Building News*: "will they build house like this in our countryside? Of course it is all right for France . . . and yet here it is, or about to be. The blow is falling; prepare to meet the shock."



© BookArt and Architecture Picture Library

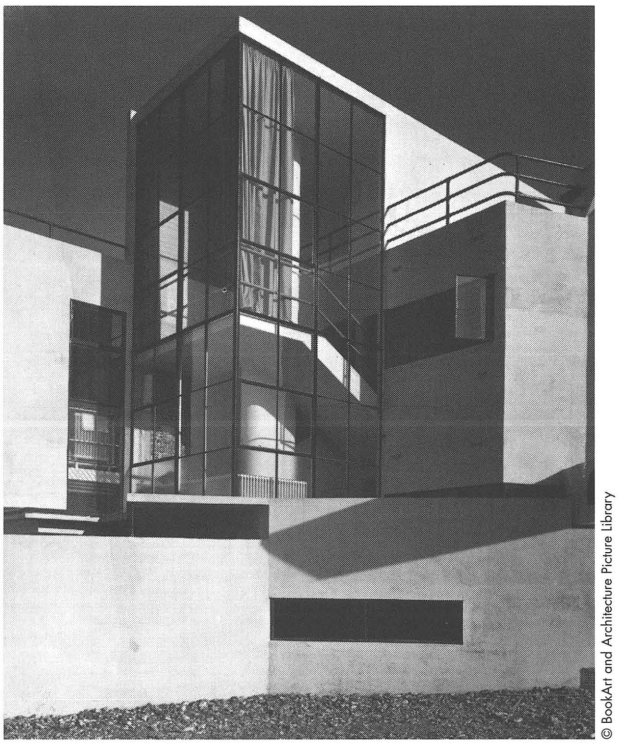
articled architecture pupils in New Zealand who came to England as coal trimmers on a cargo ship. They arrived at Harwich in 1924 dazed and bedraggled with hands so damaged they were unable to hold a pencil. They had come this tortuous route determined to make a name for themselves in the Mother Country. This they certainly did. They won prestigious architectural awards that enabled them to attend the British School in Rome which saw them regularly going to and from the city, keeping up with the new architecture throughout Europe. In Rome Connell excelled. A natural designer and classicist, he so

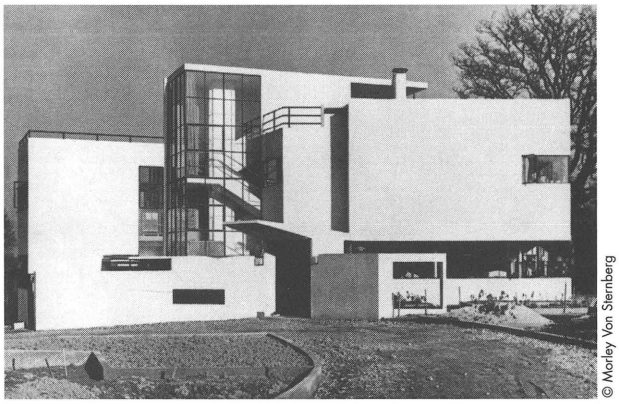


© Morley Von Sternberg

impressed the director of the Rome School that he was given the commission for "High and Over." Thus the director launched a career that was to pioneer the cause of modern architecture in Britain. To build the house Connell reluctantly resigned from the British School in Rome to set up his own practice. For Connell, "High and Over" was an early experiment with decorative materials associated with art deco. He used some of these materials at 'High and Over' with considerable skill. The walls of the living room and hall were sprayed with cellulose, and the ground floor partition doors were constructed from two layers of cellulose sprayed glass. The front doors were faced with sheet stainless steel as were all architraves to internal metal doors. The later houses were more strictly functional and the reference to the Paris of 1925 ceased. Connell went in to private practice soon after "High and Over" was completed.
Basil Ward went to Burma from Rome designing modern buildings there before returning to London to join Connell in practice in 1932. Lucas made up the triumvirate in 1934. All three were founding members of the MARS Group—an influential radical, socialistic and quasi-scientific self-promoting society the Modern Architectural ReSearch Group. MARS had been initiated in 1933 by two other leading modernists Wells Coates and Maxwell Fry as the English 'wing' of the CIAM (Congrès Internationaux d'Architecture Moderne), the propaganda organization for the 'New Architecture' in Europe founded by Le Corbusier and his amanuensis, the Swiss born art historian Dr Sigfried Giedion at La Sarraz, Switzerland in 1928. CIAM consolidated the new modernist aesthetic and drew representatives from many parts of the world.

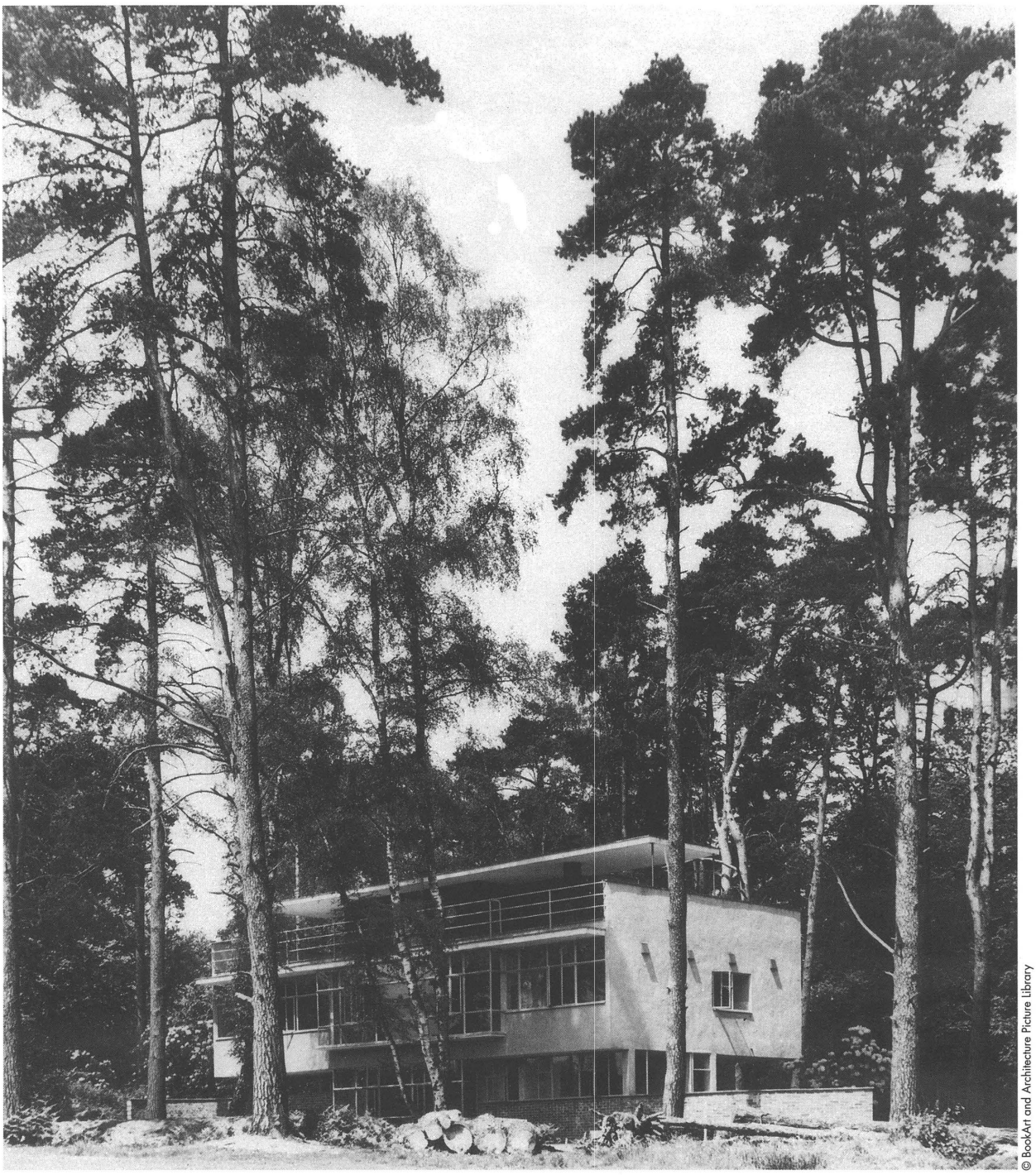
THUS THE NEW ARCHITECTURAL language was promoted and eventually introduced into to Britain by CW&L. Indeed they were, according the great German architect and teacher Arthur Korn's writing of their work in 1956, "the only architects thinking in such an uncompromising contemporary vernacular." He wrote "of their work two aspects now seem important: the great courage with which they exploited new materials (concrete, glass and metal windows) and the artistic vigor in which they conceived a new way of life in building form." He also praised: "their classic purity which achieved an extraordinary transparent richness of forms and void."
In a way Korn's views were a postscript to the careers of CW&L who had disbanded at the outbreak of the 1939–1945 war, yet it introduced an entirely new generation to the significance of their buildings and their values and ideas. In a real sense, Korn was the original inspiration for this new book which surveys the whole of CW&L's output from the École du Cordon Bleu to a constructivist style design for a "preventorium" at Papworth, and is testimony to Korn's enthusiasm.





Figs. 4 & 5. The next house designed by Amyas Connell was New Farm, Haslemere built in 1932 before he was joined by Ward

THE LAST HOUSE completed before the breakup of the practice was 66 Frognal in London. Its completion was much delayed by the objection of neighboring traditionalists who abhorred The Modern. After a long enquiry the chairman of the London City Council enquiry



© BookArt and Architecture Picture Library

Fig. 6. Colin Lucas, who joined the practice in 1934, was an expert on concrete thin wall construction. This is his third house built at Wrotham in Kent, 1933. He was also responsible for the design of Greenside (now destroyed)

© BookArt and Architecture Picture Library

claimed it was "one of the greatest pieces of vandalism ever perpetuated in London." Eventually it received permission to go ahead with a proviso that it should have a full length flower box cast to the bottom of its bare street façade! Today it is listed and has been completely restored and passes hands for millions of pounds.

THE END OF THE AFFAIR

After the CW&L practice closed in 1939, the trio went their separate ways. From 1939–1943 Connell served in the British Army and afterwards as architect to the Ministry of Works. After setting up a small practice in London and taking part in the competitions for the new Crystal Palace and Liverpool Cathedral he eventually left

Britain for East Africa in 1947. He went first to Tanganyika (now Tanzania) where he built a sisal farm and a new village community but moved to Nairobi, Kenya at the invitation of the British government, to assist with the design of a new Legislative Assembly which became Parliament Buildings on independence in 1963. In East Africa Connell exerted a profound influence on the younger generation of local architects although he was losing faith in Le Corbusier's ideas which seemed out of place in a tropical country. He was able to reconcile his own Corbusian influence and rational thinking with a gradual acceptance of local conditions. He saw a transfer of his innovative ideas to a new kind of tropical architecture. The African buildings were far more complex than anything he or his partners had carried out in Britain in the 1930s. Among the more successful was the hospital built for the Ismaili community: the HH Aga Khan Platinum Jubilee Memorial Hospital (1956–1963), which received a RIBA Bronze Medal, an unusual but highly appropriate prize for a building so far from London.

WHEN DESIGNING the brise-soleil for the new Crown Law Offices (1960) he drew not so much on the international modern architectural clichés but rather on decorative screens based on Timurid and Moghul examples, thus attempting through his architecture to compound an impression of the mixed ethnic and cultural nature of East African life. In a sense he pursued the idea of a truly modern African architecture without recourse to mindless vernacularism or tribal pastiche.

BASIL WARD moved in very different circles from the colonial world of Connell. He enjoyed the political arena, teaching and telling. After service in the Royal Navy he became a partner in Ramsey, Murray, Ward and White and the first Lethaby professor of Architecture at the Royal College of Art. Later, he retired to the Lake District after becoming acting head of the Manchester Polytechnic School of Architecture.

MUCH LESS is known about Colin Lucas. He was a reserved and very private person and those who worked with him in London have nothing but praise for his quiet and considered influence. He joined the LCC Architecture Department in the early 1950s and became group leader in the Housing Section. His influence on the great Corbusian estate of Alton West, Roehampton Lane (with 2,000 dwellings, and the largest undertaking by LCC) has always been widely acknowledged by those who designed it. Lucas left the GLC in 1977 partly because he would not accept promotion. He wanted to stay with the designers and not become yet another bureaucrat. He retired and turned to music, poetry and painting.

DENNIS SHARP *is co-chair of Docomomo UK. For further details on this author, please refer to his article "Frank Lloyd Wright in Britain," page 44.*

Fig. 7. Basil Ward's house at Moor Park of 1936–1937 was next to a golf course in a private road. It is one of the most radical of all the houses of the decade using a system of reinforced concrete post and beam construction

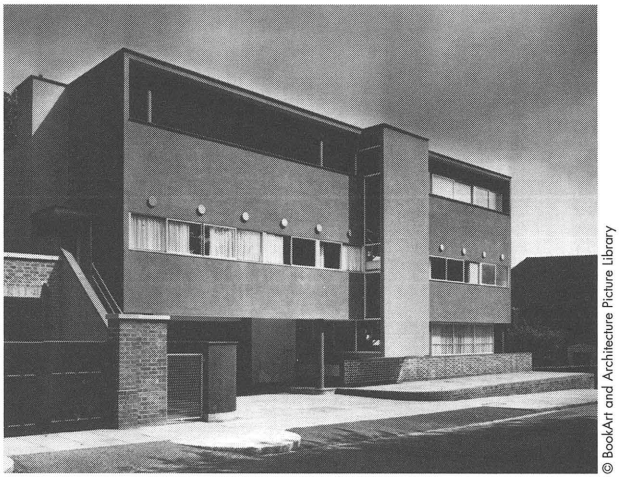


Fig. 8. The last house by Colin Lucas was at 66 Frognal, London, 1937–1939

Max Borges Recio
Cuban Master of Shell Design

EDUARDO LUIS **RODRÍGUEZ**

In December 1940 Max Borges Recio returned to Havana from the United States where he had been studying architecture. Almost two decades later, in June 1959, he made the same journey in the opposite direction and, although he did not know it yet, for the last time.[1] Those two dates frame Max's architectural production on the island, the beginning and the end of a brilliant career that turned him into one of the most creative and outstanding Cuban architects of the modern movement.

FR MAX BORGES RECIO, RÉCEMMENT DÉCÉDÉ, FUT L'UN DES ARCHITECTES LES PLUS ÉMINENTS DU MOUVEMENT MODERNE À CUBA. FILS AÎNÉ D'UN ARCHITECTE ET CONSTRUCTEUR, MAX FUT FORMÉ AUX ÉTATS-UNIS. À SON RETOUR À LA HAVANE, IL CONÇUT ET CONSTRUISIT PRÈS DE CENT BÂTIMENTS – RÉSIDENTIELS, COMMERCIAUX ET CULTURELS –, PARMI LESQUELS SON PROJET LE PLUS INTERNATIONALEMENT RECONNU : LE CABARET TROPICANA. SA CARRIÈRE, DEUX FOIS RÉCOMPENSÉE PAR LA MÉDAILLE D'OR DE L'ASSOCIATION DES ARCHITECTES CUBAINS, ÉVOLUA D'UN VOCABULAIRE RATIONNEL, INFLUENCÉ PAR L'ÉCOLE DE HARVARD, À L'EMPLOI MAGISTRAL DE LA COQUE, DONT IL FUT L'UN DES PIONNIERS DANS LE PAYS.

MAX BORGES's stay in the United States had been a lengthy one, initially for three years of high school in Louisiana, and then studying architecture at the Georgia Institute of Technology in Atlanta and at the Harvard Graduate School of Design (HGSD) in Cambridge, Massachusetts. Undoubtedly, the quality of the education he received in these institutions, as well as the exposure to the best of North American architectural culture, were the foundation of his later accomplishments. Max received a solid formation on structures at Georgia Tech and an excellent design training at Harvard, under the tutelage of Walter Gropius, appointed Chief of the Architecture Department in 1938, who praised Max's final thesis project, a design for an airport in Havana. Immersed in the rich university life, and occasionally sharing with students like Philip Johnson,[2] Max thrived on the theoretical knowledge and the practical tools necessary for an adequate professional practice, and these were complemented by frequent visits to modern works that had been recently built in New England, among which the Gropius and Marcel Breuer houses (1938 and 1939) in Lincoln, Massachusetts. Both of these architects would have some influence on Max's first professional stage, but this did not prevent him from assuming a critical stance towards some of their projects. Of the Gropius house he once said: "I didn't like the solution of the interior circulation on the ground floor because it forces you to go through the studio or the dining room to get to the living room."

HE WAS OCCASIONALLY critical of Johnson as well. Years after having coincided in Harvard, Borges, when discussing with Johnson the seminal Glass House he had just built (1945–1949), criticized the building's "too thick and heavy roof." To which, according to Borges, Johnson replied: "The structural engineer said it was impossible to make it thinner," which reinforced Max's wish of teaching himself how to design structures.

AS A COMPLEMENT to his education Max had another influence perhaps even more important, and undoubtedly more transcendental, than his classmates and professors from Harvard: his own father. Max was the son of Maximino Borges del Junco (Jaruco, Cuba, 1890–Virginia, USA, 1963), who graduated as an

architect in 1917 and founded a successful design and construction company, where Max Jr. became the main partner in the 1950s.[3] Maximino passed unto Max an understanding of architecture close to rationalism—a way of doing that Max Sr. had adopted after an initial period using mainly the neo-colonial vocabulary—in addition to a taste for construction work, an aspect of the profession which Max said he enjoyed as much as design. Both Max and Maximino—who was also a civil engineer—possessed a mainly intuitive knowledge of structures that proved to be very useful during their careers.

ADDITIONALLY, when Max arrived in Cuba in December 1940, he could count on the administrative support from his father's design office and construction company which was indispensable for starting his professional career immediately, although he did not yet have his Harvard title, which he only received in February 1941. Due to World War II, rumors of a compulsory draft in the United States forced him to return to Havana a month earlier than planned. He then took classes at the University of Havana and received his Cuban architecture diploma in May 1942. His first projects, dated 1941, were signed by Maximino, because before graduation he could not belong to the College of Architects, a compulsory requirement to practice professionally. He had to go to his father to start building without delay, having great confidence in his excellent education.

SOME STEPS IN AN ALTERNATIVE SEARCH FOR CUBAN IDENTITY

In the Cuban works of Max Borges Recio it is easy to distinguish between two different stages that correspond to two different conceptual and formal approaches to architecture. The first one, close to the functional rationalism championed by Gropius, Breuer and the HGSD but pursued from its very beginning with a clear intention of merging with Cuban conditions and culture, starts with the Santiago Claret House (1941) and ends with his own residence (1948–1950). The second stage is defined, more than by any other element, by the masterful use of structural shells: vaults and hyperbolic paraboloids perfectly and often spectacularly integrated with their Cuban context, solving both the functional and expressive requirements of the projects as well as their insertion into the sensual, hot, humid and exaggeratedly luminous tropical environment. Such solutions then became frequent in his work, always used gracefully and with unparalleled creativity, and not merely following other practitioners with the same leanings. In fact, Max always insisted that when

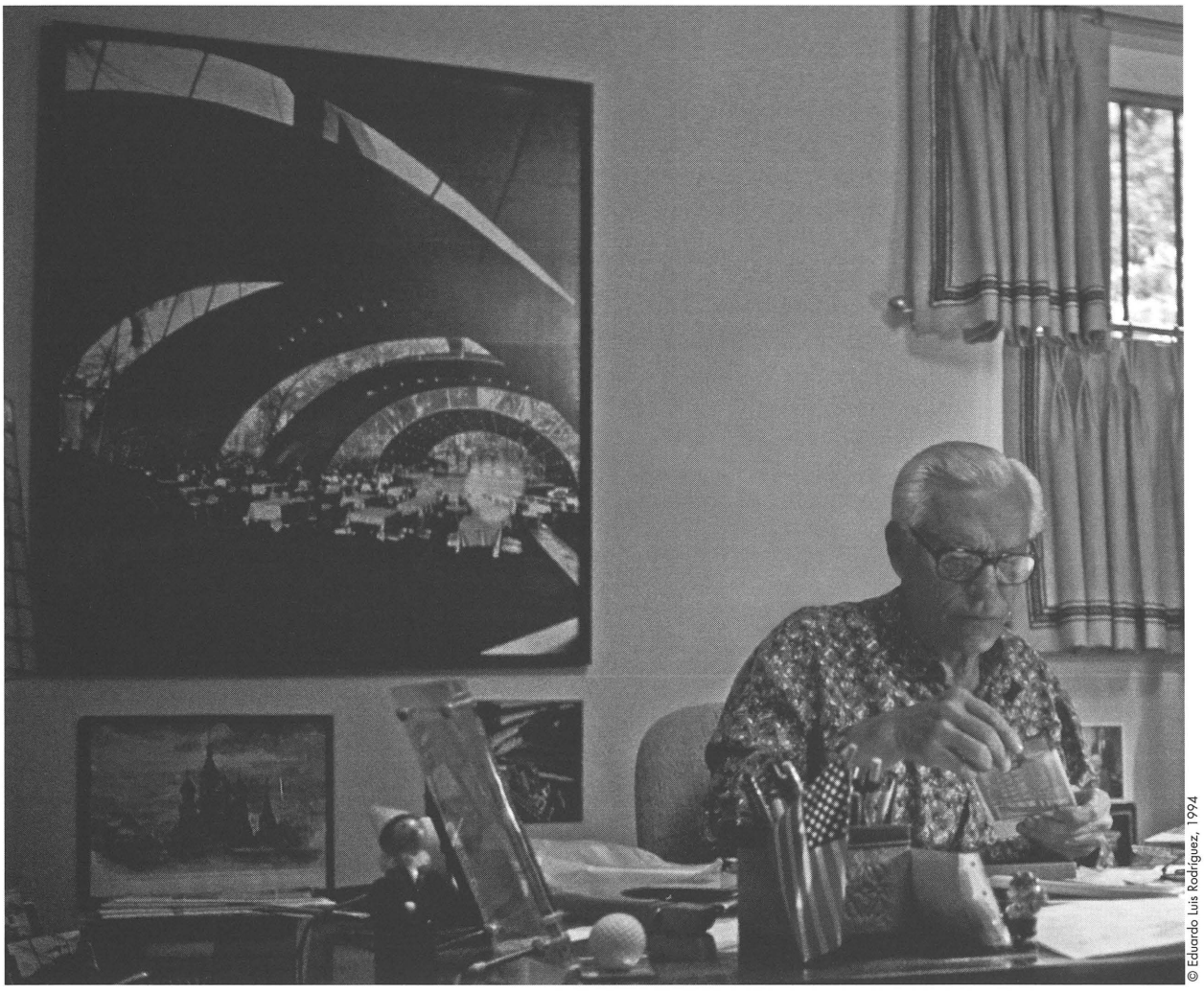


Fig. 1. Cuban architect Max Borges Recio at his home studio, Virginia, United States, 1994

Félix Candela collaborated with him in some of his commissions, it was always as a structural designer, and that the architectural project was always Max's responsibility.

UNDOUBTEDLY and given his international prestige as the main designer of shell structures, working with Candela was a also a major reference for Max. But the relationship's importance, repercussion and even the production have been exaggerated to the point that some authors, carelessly and completely without sources, have alleged that Candela collaborated with Max in several of his most important works which were actually built when he had not even met the Spanish-Mexican engineer yet.[4]

THE FIRST WORKS Max Borges Recio designed once established in Havana were the residences for Santiago Claret, in El Vedado neighborhood, and for Martín Fox,[5] in the Miramar district of the city, both built in 1941. The owners of both houses proved to be important personal contacts who commissioned Max for much larger and relevant works almost a decade later.

THE CLARET HOUSE is a remarkable example of the rationalist trend *(fig. 2)*. Its chief attributes are the use of smooth and unadorned expanses of wall, and the development of the design through cubic volumes with distinct edges. The building's core is horizontally accented by the protruding balcony of the upper floor which meets the staircase's vertical block at a right angle. The stairwell is enclosed by a solid wall on the front and a translucent wall on the side, where it is covered with glass bricks. A latticed awning tops off the façade. The living and dining rooms take up the front half of the second story and enjoy wonderful views of the sea. In 1956 Max carried out a major extension to the house, which included a library on the upper floor, a terrace on the ground one, and a swimming pool. The privacy required in such a populous zone of town was achieved with the construction of a stone wall erected at the limit of the property, close to the sidewalk, and three asymmetrical hyperbolic paraboloids that obstructed the view of the pool from neighboring apartments. Regrettably, these elements, structurally designed by Candela, were demolished in 1986.

TWO YEARS LATER Max designed and built a small but extremely appealing apartment building in a traditional district of Havana, full of eclectic houses with a proliferation of balconies and heavy balustrades *(fig. 3)*. With this project he attempted to balance respect for the neighbors with a commitment to modern architectural axioms, and successfully achieved this goal in the playful way which would become an essential characteristic of his architecture. The main façade is partially covered by a rough stone-cladding to harmonize with the historic character of the

Fig. 2. **Max Borges Recio**, *House of Santiago Claret*, Havana, 1941, enlarged in 1956

Fig. 3. **Max Borges Recio**, *Apartment Building*, Havana, 1943

adjacent buildings, while the central section is formed by a smooth-sided, protruding cube with sharp edges, which asserts the work's modernity. Here, for the first time Max employed curvilinear shapes, visible in the undulating upper end of the façade.

THE MAJOR SUCCESS Max achieved in this first period of his career was a result of his masterly design for a centrally located and remarkable building. With an expressive discourse based on the intersection of volumes, the Medical and Surgical Center (1946–1948) is an influential example of the rationalism that had gained ground as the dominant trend in the 1940s Cuban architecture *(fig. 4)*. The composition is all at once bare-boned and alluring; it combines the strength of volumes and plainness of façades with the continuous flow of straight lines. Some walls meet at an acute angle, and this, along with the thin and lightweight roof slabs,

FACHADA PRINCIPAL

Fig. 4. **Max Borges Recio**, *Medical and Surgical Center*, Havana, 1948

lends dynamism to the building as a whole. A driveway runs beneath the vertical, central portion of the building, which stands in front of the main block and contains the lobbies of each floor. The ground floor of the building accommodates offices and surgeries. Patient rooms are on the next two levels and operating theaters above that. The top floor is occupied by service areas. The original capacity of 40 beds was increased in 1951, thanks to an extension that also included the addition of a folded slab roof on the uppermost level. For this work Max was awarded the Gold Medal Prize from the College of Architects in 1948, for the first time in his career.[6]

THE SAME YEAR Max designed and began the construction of his own residence, finished in 1950 and located in the Miramar district of Havana *(fig. 5)*. This is one of the most integrally modern and attractive residential works in the city. With it Max explored in depth some forms and concepts he had not fully exploited in the past. Here the result is close to purity of external expression: a rectangular prism, with sharp arises, raised on tubular concrete columns covered by metal plates. The continuous ribbon windows are shielded from the sun by a light wooden lattice shade. A similar device marked the location of the stair leading up to the raised main entrance, but sadly, it is no longer there. The main floor is an unbroken 'L' shaped space containing the lounge and dining room, the latter connected to the kitchen. This area meets the garden behind it by means of large sliding glass doors. The bedrooms are on the third level, and the service quarters and garage occupy the rear portion of the ground floor. To achieve a clean visual effect, all the beams are on the roof, from which the rest of the house hangs down. While still unfinished in 1949, Gropius visited the construction site and encomiastically praised the design.

THE SECOND STAGE of Max's professional endeavors in Cuba started at a very high level with what is considered his undisputable masterpiece, his most renowned work: the "Crystal Arches" Hall of the Tropicana Cabaret (1951), one of the most compelling pieces of Cuban

Fig. 5. **Max Borges Recio**, *Max Borges Jr.'s own house*, Havana, 1948–1950

architecture, and one of the few Cuban buildings included by Henry Russell Hitchcock in the exhibition *Latin American Architecture Since 1945*, held at the New York Museum of Modern Art in 1955 *(fig. 6)*. In the book accompanying the show, Hitchcock wrote about this work: "This Cuban nightclub exhibits a far more melodramatic use of shell-vaulting than the industrial buildings of Mexico and Colombia, almost rivaling in scale the Latin American stadiums. But the elements here, set down under great trees which here and there cut through them, are exploited for their lyricism and for the curious cave-like but not oppressive spatial effects they can produce. Shelter is here etherealized not by reduction of supporting and supported members but by the almost free-hand fashion in which the successive curved planes of the shells are related in space. The result rivals in autochthonous Latin American quality the work of Niemeyer."[7]

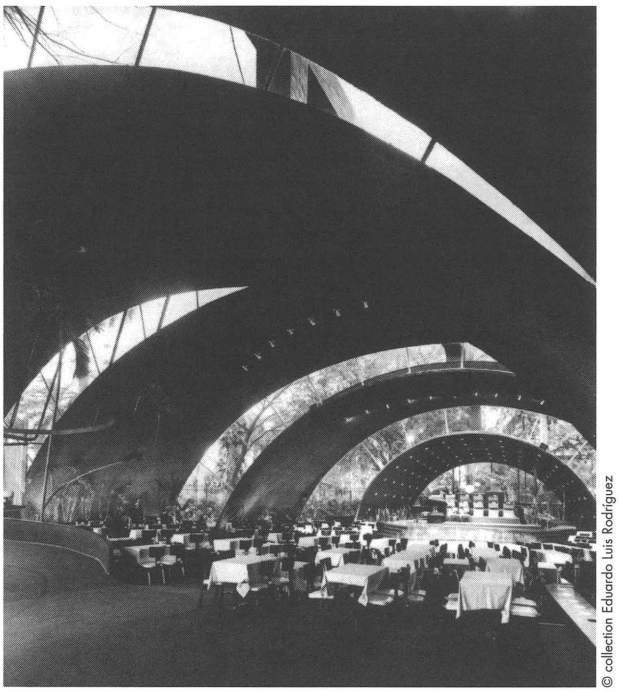


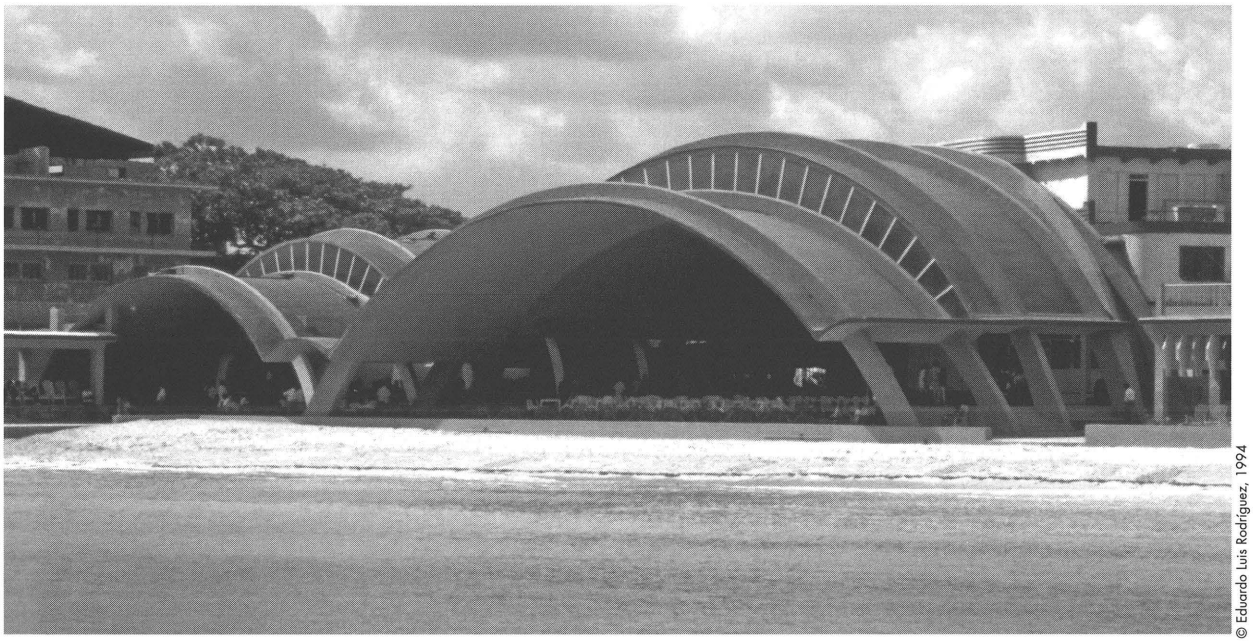
Fig. 6. **Max Borges Recio**, *Tropicana Cabaret*, "Arcos de Cristal" (Crystal Arches) Hall, Havana, 1951

FOR THE SECOND TIME, Max was awarded the Gold Medal Prize by the National College of Architects thanks to this building, commissioned by Martín Fox, for whom Max had designed a house early in his career. The project, which was greeted with unanimous acclaim from critics at home and abroad, was a renovation and enlargement of the existing Tropicana Cabaret—with ensuing difficulties solved by means of shell vaults whose structural design was done by his father Maximino. The "Crystal Arches" Hall is composed of five slender concrete vaults placed off-center in decreasing order of height, producing a telescopic effect that channels the perspective towards the orchestra platform. The cabaret has a uniquely glamorous atmosphere in which even the lush trees of the garden participate, either glimpsed through the glass arches that seal the gaps between the vaults, or in some cases preserved indoors, their branches piercing through the structure. By night, the dark paint of the ceiling and the pinpoint lights convey the illusion of being outside in the open air. In 1954 Max built a new and very appealing addition to the compound, a casino (nowadays used as a restaurant) that took the integration of architecture and nature almost to its ultimate extreme: all the walls and the saw-tooth shaped ceiling are made of glass to convey the feeling of being outdoors, with the exuberant surrounding vegetation providing shade and the interior space enjoying privacy, silence and air conditioning *(fig. 7)*.

Fig. 7. **Max Borges Recio**, *Tropicana Cabaret*, Casino (currently restaurant), Havana, 1954

MAX PUSHED even further the use of vaults covering large spans in his next work, an enlargement of the Nautical Club of Havana (1953) *(fig. 8)*. The original building, located close to the sea, was built in the 1920s and the institution needed an expansion to offer shade and services to the members enjoying its facilities. Max designed a huge set of double arches covered by vaults. Here, as in the Tropicana, he used the difference in height between sections of the vaults for skylights. Although the Nautical Club is more squat and massive than its predecessor, it benefits from a site which beautifully complements the structure, which establishes an analogy with the waves of the nearby sea.

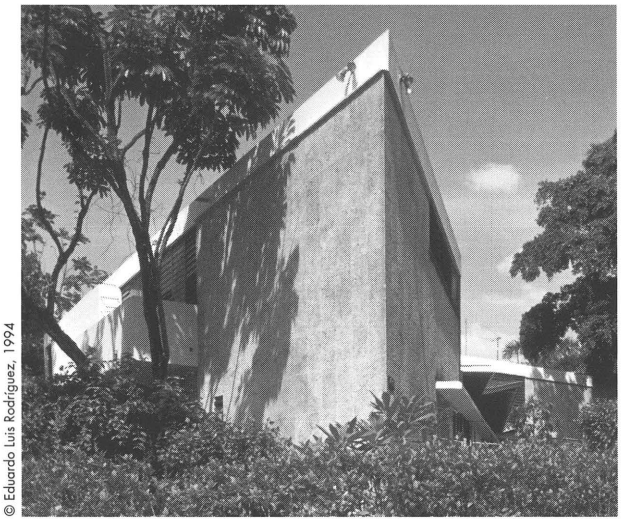
THOUGH THE EMPHASIS of this period of Max's production was placed on achieving functional, aesthetic and even symbolic results by the use of shell structures, and on connecting his solutions to local identity by the expression of a sensuality and grandiosity often identified as typical of the Tropics, his explorations were not limited to the use of this formal and structural vocabulary, as is evident in the house he built for his brother Alberto in 1957 *(figs. 9 & 10)*. The building is tailored to its almost triangular site by a basically 'L' shaped plan. The ends of each wing are beveled off into sharp, acute angles clad in Jaimanitas stone, in a shape that recalls the bastions of colonial fortresses, specifically those of the Castillo de la



© Eduardo Luis Rodríguez, 1994

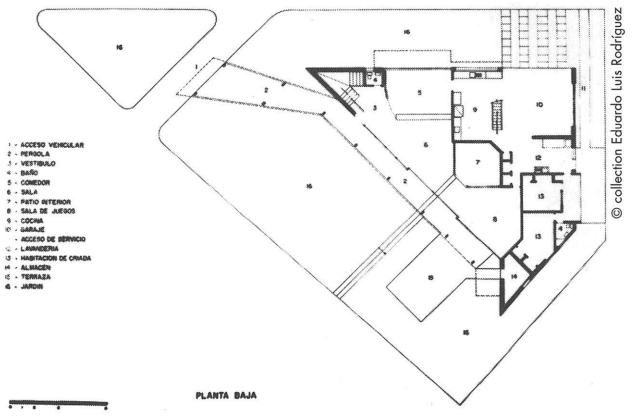
Fig. 8. **Max Borges Recio**, *Nautical Club*, Havana, 1953

Real Fuerza (1558–1577), a reference Max refused to acknowledge at the time of the conception of the design.[8] The left wing of the house is occupied by the living room, dining room and main staircase, while the right wing contains a playroom; in between both sectors there is an interior patio which allows for cross-ventilation, the house's main façade being almost totally composed of wooden louvers. The materials employed for the ceiling, doors and windows of this space—wood and glass—create a light, transparent counterpoint to the materials used throughout the rest of the house, which are more solid, thus distinguishing the reception areas from the private ones. A pergola—wooden beams and thin cylindrical metal post—used to run along the entire length of the façade, providing a transition between the garden and the living room, but it was removed in 1980.



© Eduardo Luis Rodríguez, 1994

Fig. 9. **Max Borges Recio**, *House of Alberto Borges*, Havana, 1956–1957. *below* fig.10. Ground floor plan



© collection Eduardo Luis Rodríguez

PERHAPS THE MOST APPEALING result of the collaboration between Candela, as structural designer, and Max is the Núñez Bank (1957) *(fig. 11)*. Following the modernist urge to render internal activity externally, the bank had a totally transparent plate-glass façade that symbolized the honesty of the financial transactions carried out within. The structure hinges on six hyperbolic paraboloids, a design strategy that allowed covering a large space with few supports while freeing the façade from load bearing constraints. The difference in height between the two rows of paraboloids is filled by a long skylight and the main bank vault is a marble-clad cube placed in rotation from the walls, as though casually set down, in an attempt to present a more informal image of banking. With the same purpose, there are no iron grills in the counter. Unfortunately, the original transparent glass of the façade was replaced in the 1990s by mirror-glass, which completely spoiled the unique expressive effectiveness of the design: it is no longer possible to enjoy the view of the wonderful structural solution from the outside of the bank, a real loss for the city.

IN OPPOSITION to the bank in size but not in interest, the next collaboration between Candela and Max was for the design of the funerary chapel and tomb for the Núñez

© collection Eduardo Luis Rodríguez

Fig. 11. **Max Borges Recio**, *Núñez Bank*, Havana, 1957

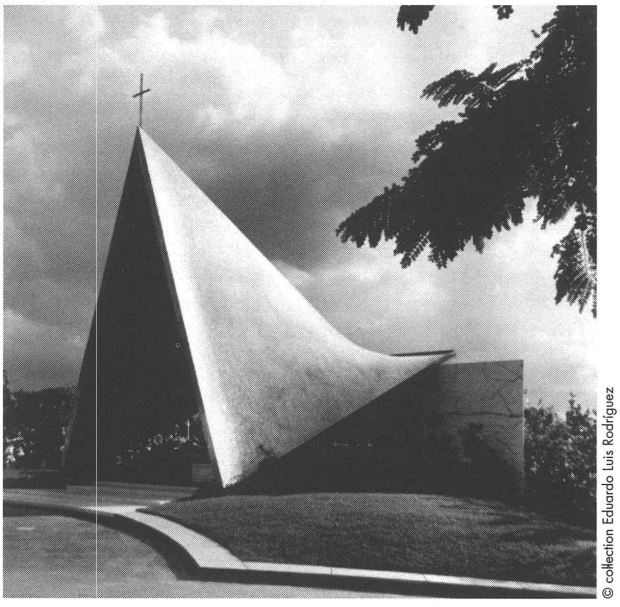
family, located at the Cristóbal Colón Cemetery of Havana and built in 1957 *(fig. 12)*. This almost minimalist work in physical terms synthesizes the symbolism of its function in a peaked, vertical gesture. The chapel, that resembles a tent, contains an elegant and fluid space that merges with the surrounding landscaping. The access to the underground space, with a capacity for 150 coffins, is shaped like a marble coffin located at the center of the space and protected by the "tent." The hyperbolic paraboloid structure is inlaid with small pieces of glazed ceramic tiles, flashing gold in the sun, and a slim cross tops the building.

ALL ALONG his professional trajectory in Cuba, Max Borges Recio creatively searched for the elusive goal which was one of the main aspirations of the most important modernist architects of the country since the 1920s: Cubanness, *lo cubano*, integrating the modern movement's universal vocabulary with the local identity. What sets Max apart from the rest and awards him a special place among the others is that he conducted his quest along a different, original and personal path, one that remains valid, appealing, and inspiring.

EPILOGUE

In Cuba, since January 1959, a new and revolutionary government seized power with the purpose of completely and urgently transforming practically the whole country in every field, including the way architecture was practiced. The phrase that best summarizes the changes that were then implemented was pronounced by the new chief of government, Fidel Castro, in a speech known as "Palabras a los intelectuales,"[9] delivered on June 30, 1961: "Dentro de la Revolución, todo; contra la Revolución, nada." On February 16, 1959, Castro himself had delivered another speech at the College of Architects in which he defined the new ways architecture should be understood and practiced in Cuba: from now on the only client would be the state and architects were to cease pursuing what was enunciated as "the sole personal satisfaction of their egos with works like monuments."[10] This new situation immediately prompted

Fig. 12. **Max Borges Recio**, *Núñez Gálvez Tomb*, Cristóbal Colón Cemetery, Havana, 1957



© collection Eduardo Luis Rodríguez

the mass departure of professionals, and specifically architects, from the country. One of them was Max Borges Recio. A single day of the month of June 1959 meant the end of his Cuban professional career.

OF COURSE, none of the architects that left thought at the time that their exile would be permanent. Max established himself in Florida initially, later on in Pennsylvania and finally in Virginia, where he kept working as an architect and developer for several decades. In 2006 he was awarded the Lifetime Achievement Prize from the Cintas Foundation.[11] Max died on January 18, 2009, aged 90.

I SAW MAX for the last time in November 2004, in Miami, and although we later were in contact occasionally in relation to my projected monograph of his work, my recurrent memory of him is that of the last occasion we saw each other. To his great talent as a designer and builder Max added a good-humored character and an extraordinary modesty that did not relate to his stature as an architect and to the awards and recognition gained in Cuba and the United States. Our last meeting took place when Max attended a lecture I was giving at the School of Architecture of the University of Miami. It was not the first time he did so and, as always, he sat among the audience, almost hidden, trying to remain unnoticed. This time I countered his attempt: right at the beginning of my talk—which had an extensive section on his work—I revealed his presence to the audience and he was given a standing ovation.

WHEN EXAMINING the lessons Max left us in the field of architecture, we should not forget his many human qualities, among which his generosity, friendship and modesty. When I finished that lecture, Max waited patiently until the people who were asking me the last questions left. Then he came to me, shook hands and said, laughing and with a sparkle in the eyes that I can't forget: "Eduardo Luis, thank you, I didn't know I was so well known. All I did in my professional life was to do my best at what I liked doing the most: designing and constructing."

EDUARDO LUIS RODRÍGUEZ *(Havana, 1959) is an architect and architectural historian, the author of several books. Since 1997 he has been the editor in chief of* Arquitectura Cuba *magazine and, as vice-president of the local Docomomo chapter, is in charge of building the National Register. In 2005 he was guest editor of issue 33 of the* Docomomo Journal, *devoted to the Caribbean; for its introduction he received (jointly) the Pierre Vago Journalism Award from the Comité Internacional de Críticos de Arquitectura (CICA) in 2008. He had previously received, among other recognitions, the Guggenheim Fellowship in 1996 and the Editor Award in the Venice Biennial in 2000.*

BIBLIOGRAPHY

HITCHCOCK, HENRY-RUSSELL. *Latin American Architecture since 1945.* New York: The Museum of Modern Art, 1955, 108–9.

RODRIGUEZ, EDUARDO LUIS. "Max Borges Jr.", *Dictionnaire de l'Architecture du XX^e Siècle.* Paris: Éditions Hazan, Institut Français d'Architecture, 1996, 135.

RODRIGUEZ, EDUARDO LUIS. *La Habana. Arquitectura del Siglo XX.* Barcelona: Blume, 1998.

RODRIGUEZ, EDUARDO LUIS. *The Havana Guide, Modern Architecture, 1925–1965.* New York: Princeton Architectural Press, 2000.

NOTES

1 In addition to research on original documents and some publications (see bibliography), the information provided in this text is extracted from two extensive audio interviews of Max Borges Recio conducted by the author in June 1994 and April 2001, for a monograph on his work. All quotations from Max published here have also been taken from those interviews.

2 Philip Johnson returned to Harvard University in the fall of 1940 to pursue a degree in architecture. He had previously graduated there from Classic Philology almost ten years earlier. Now, after serving as chief of the Department of Architecture of the Museum of Modern Art, New York, and as co-curator of *Modern Architecture: International Exhibition* and co-author of its catalogue, *The International Style: Architecture since 1922*, he was undoubtedly an authority and a powerful influence on the subject in the academic milieu.

3 Maximino Borges del Junco was also known, both by friends and professionally, as Max. Because of this, years later, when his son became a renowned architect, their second last name or the distinction of "Max Borges Sr." and "Max Borges Jr." had to be used to be able to distinguish them. Another of Maximino's sons, Enrique, graduated as an architect in 1949, and just as Max, joined his father's firm and designed and built excellent works. See Eduardo Luis Rodríguez, *The Havana Guide, Modern Architecture, 1925–1965* (New York: Princeton Architectural Press, 2000), 110, 128, 134 and 139.

4 Some cases of erroneous attributions such as this can be found in the article by Orestes del Castillo "Re-uso adaptativo en obras del Movimiento Moderno" (*Boletín de Docomomo Cuba* 4, December 2005, 2), and in the doctorate thesis by Spanish architect Francisco Gómez Díaz, directed by Víctor Pérez Escolano and tutored by Enrique de Haro Ruiz ("De Forestier a Sert. Ciudad y Arquitectura en La Habana de 1925 a 1960," Escuela de Arquitectura de la Universidad de Sevilla, 2007). In a similar way to Del Castillo, the author of this document, which contains many factual and interpretative errors, states without any proof that in 1951, for the vaults of the Tropicana Cabaret, Max "called Félix Candela . . . who would make his wish come true . . . The union of a good architect like Borges and a good structural designer like Candela made possible the construction of one of the most lucid examples of Havana architecture from the 1950s" (319). Gómez goes even further with his irresponsible attributions and claims the same concerning the Nautical Club, from 1953 (320). But according to Borges in a recorded interview, he and Candela didn't even know each other personally at the time, and didn't collaborate until later projects. The structure of the Cabaret Tropicana was designed by Max's father, Maximino, and that of the Nautical Club by Max himself together with engineer José A. Vila.

5 Rodríguez, *The Havana Guide*, 86.

6 The Gold Medal Prize was the main award given by the College of Architects in recognition of an outstanding design. It was awarded yearly, but each year only one type of buildings could be submitted to the competition. There were three categories: houses, commercial buildings and public facilities. Therefore, each awarded design was considered the best one built in the previous three years. The Gold Medal was awarded from 1940 to 1960. In addition to Max Borges Recio only three other firms received it twice: Bosch and Romañach; Quintana, Rubio and Pérez Beato; and Álvarez and Gutiérrez.

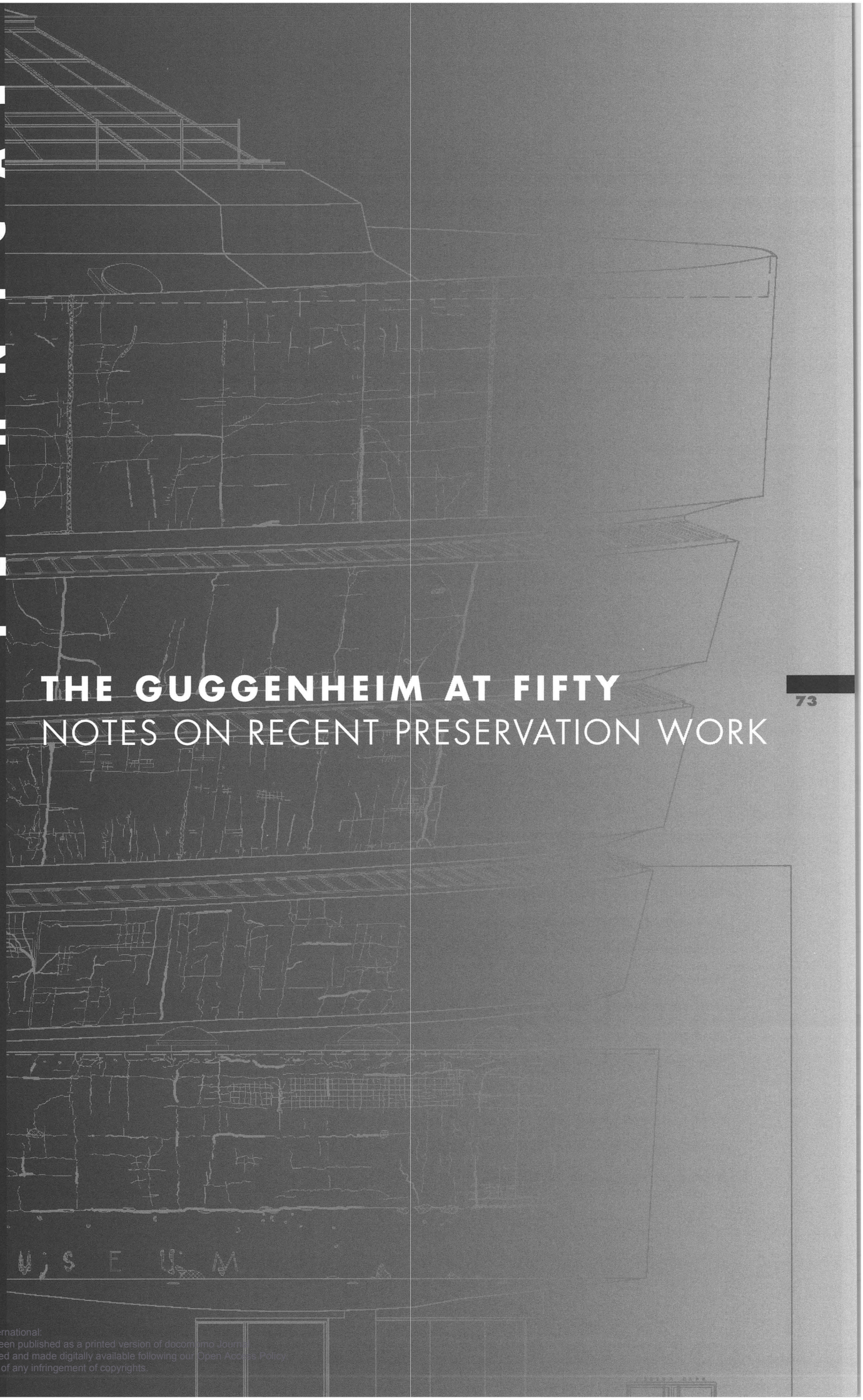
7 Henry-Russell Hitchcock, *Latin American Architecture Since 1945* (New York: Museum of Modern Art, 1955), 109.

8 When asked about his repeated use of sharp angles in several of his projects, his answer was very simple: "I like them very much."

9 Fidel Castro, "Palabras a los intelectuales," *Política cultural de la Revolución Cubana* (Havana: Editorial de Ciencias Sociales, 1977): 17.

10 Reynaldo Estévez, "Arquitectos, reforma urbana y vivienda," *Arquitectura Cuba* 309–310 (1959): 149.

11 Jointly awarded to Cuban architect Ricardo Porro, who has been living in Paris since 1966.



THE GUGGENHEIM AT FIFTY
NOTES ON RECENT PRESERVATION WORK

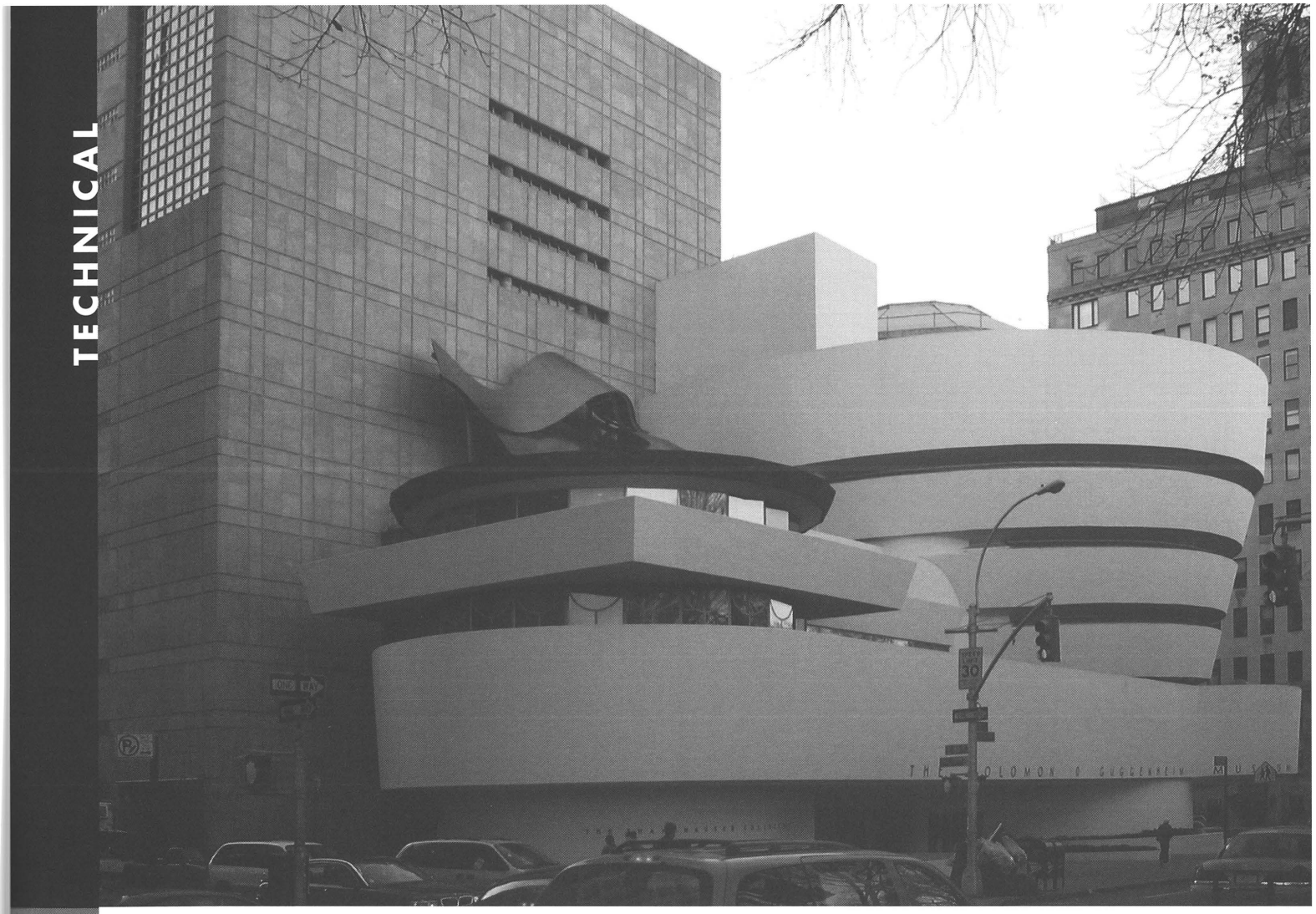


Fig. 1. **Frank Lloyd Wright**, *Solomon R. Guggenheim Museum*, New York City, built 1956–1959. **Gwathmey Siegel & Associates Architects**, addition and expansion, built 1989–1992. Frank Gehry, Gehry Partners, LLP, Terrace Canopy Addition, built May 2001, removed Summer 2006

ANGEL **AYÓN**

Almost half a century has passed since the inauguration of the Solomon R. Guggenheim Museum, Frank Lloyd Wright's masterpiece in New York. Experimental in concept, form and materials, the building is made of poured-in-place concrete, shotcrete (then known as *gunite*), steel-frame windows, aluminum skylights, and suspended cement plaster soffits on metal lath. Its status as an international icon of modern architecture has been widely acknowledged, as evidenced by its landmark designation at New York City, state, and national levels. The museum is one of several buildings designed by Wright included on the latest US World Heritage Tentative List.

Unlike many modern buildings, the Guggenheim has retained its original function, ownership, and commitment to the "promotion, encouragement and education in art, and the enlightenment of the public."[1] For almost fifty years, however, growing institutional needs led to several alterations, with the most visible dating from 1992. At that time, a limestone-clad tower designed by Gwathmey Siegel & Associates Architects expanded a previous 1968 concrete-frame addition designed by William Wesley Peters from Taliesin Associates, the firm that followed Wright's architectural practice *(fig. 1)*.

As part of the 1992 work, the skylight at the Rotunda—the main spiral-shaped exhibition space—was replaced, and the thermal performance of the original walls

improved. The building, however, remained prone to condensation on its steel windows and perimeter skylights. By late 2004, it showed multiple cracks, coating failures, soiling, and other signs of deterioration *(fig. 2)*.

EXISTING CONDITION ASSESSMENT AND PRESERVATION APPROACH

To address these conditions, the Guggenheim retained a multidisciplinary team composed of architects and preservationists WASA/Studio A, structural engineers Robert Silman Associates, P.C., architectural conservators Integrated Conservation Resources, building envelope specialist William B. Rose & Associates, and M/E/P engineers Atkinson Koven Feinberg LLP, among other team members. Twice during the design process, peer reviewers were engaged to discuss the main findings and recommendations.
During the first eighteen months, the building was comprehensively documented and evaluated through archival research, materials testing, probes and non-destructive evaluation, laser survey, structural and environmental monitoring, crack mapping, paint analysis, structural 3-D modeling, and corrosion assessment. Existing conditions were documented before and after paint removal *(fig. 3)*.
At the outset of the project, a set of principles for intervention was defined. This included: (1) retaining original materials; (2) retaining changes that occurred over time; (3) preserving distinctive features; (4) repairing rather than replacing, and replacing in kind if necessary; (5) avoiding radical changes in work designed to meet current code and energy requirements; (6) ensuring that treatments are not injurious; and (7) ensuring that new work is reversible and differentiated from historic building fabric.
This preservation philosophy was conceived in the spirit of stipulations set forth in the US Secretary of the Interior's Standards for the Treatment of Historic Properties, the 1964 Venice Charter for the Conservation and Restoration of Monuments, the 1979 Australia Icomos Burra Charter (as revised in 1999), the 1994 Nara Document on Authenticity, and other relevant documents underlying the theory and praxis of historic preservation to date.
These principles guided the project team's responses to the complex challenges posed by Wright's building. For instance, archival research revealed that when Wright requested the general contractor to scribe the formwork marks off the exterior concrete surfaces,[2] the builder answered that "formwork marks are characteristic of concrete,"[3] and despite efforts to remove them, they remained noticeable. This finding led the project team to acknowledge the original formwork marks texturing the Guggenheim's smooth cementitious exterior surfaces as a significant value-carrying feature, evidence of the workmanship's authenticity, and to consider that Wright's original design intent was ahead of the construction means and methods available at the time.

FANGEL AYÓN REVIENT ICI SUR LA RESTAURATION DU CHEF-D'ŒUVRE NEW-YORKAIS DE FRANK LLOYD WRIGHT : LE MUSÉE GUGGENHEIM. EN 1992, LES DÉGRADATIONS IMPORTANTES DU BÂTIMENT ONT RENDU NÉCESSAIRE UNE RÉFLEXION DE FOND SUR LA PRATIQUE DE LA RESTAURATION. DES PRINCIPES D'INTERVENTIONS ONT AINSI ÉTÉ MIS EN PLACE PAR UNE ÉQUIPE D'ARCHITECTES ET DE CONSERVATEURS RÉUNIS POUR L'OCCASION. ANGEL AYÓN, À TRAVERS CET ARTICLE TECHNIQUE, REVIENT NON SEULEMENT SUR LA RÉFLEXION EN AMONT ET LA MISE EN PRATIQUE DE LA RESTAURATION DU BÂTIMENT MAIS PROPOSE AUSSI DE L'ANALYSER AFIN D'EN TIRER LES LEÇONS NÉCESSAIRES POUR L'AVENIR.

Fig. 2. **Frank Lloyd Wright**, *Solomon R. Guggenheim Museum*, façade. Surface texture and coating failures. New York City, 2004

STRUCTURAL ANALYSIS AND REINFORCEMENT

As the Guggenheim's structure and architecture are intertwined, understanding the structural behavior was critical to evaluate existing conditions and to design appropriate repairs. The significance and complexity of the building justified the use of state-of-the-art technologies to eliminate assumptions and prevent oversimplifications.

Original documents provided information on the cast-in-place structure, but were missing critical information on the reinforcement of the exterior walls. Archival research and field evidence indicated that, in spite of industry standards, Wright omitted joints to accommodate thermal movement and control cracking during the original construction. As a result, the walls cracked, creating natural joints.

Non-destructive testing and probes revealed that the Rotunda walls were constructed differently. At the uppermost wall, several deficiencies from the original construction were identified: the horizontal reinforcing had discontinuities; dowels to the main walls and slabs had insufficient lap length; there were voids at the intersection with the main load-bearing walls; and there were areas of corroded steel.

The structural engineering analysis included the creation of a detailed computer model that reflected the as-built museum geometry and properties. Using cutting-edge laser-surveying technology, the input for the structural finite-element model was constructed from the laser scan data. Even slight variations in the helical ramp and the exterior walls were accurately modeled. Material properties were assigned based on testing of the gunite and cast-in-place concrete. The model was used to analyze the structure under dead, live, wind and, most importantly, temperature loads.

The output from the structural model indicated that the building is a globally stable, dynamic structure, of which the exterior walls move inward and outward under temperature changes *(fig. 4)*. Monitoring data was used to correlate the movement predicted by the model with the actual wall movement. The analysis determined that only limited structural repairs of the uppermost Rotunda wall were required to correct the deficiencies and to meet wind load requirements.

As it was important that structural repairs respect the original historic fabric and design intent, as well as existing crack patterns, it was decided to allow the cracks to continue to open and close as the walls move with temperature changes.

Structural repairs included: bands of carbon-fiber fabric reinforcing installed on the interior surface to repair the discontinuous reinforcing *(fig. 5)*; custom steel brackets on the interior surface to reinforce dowel connections to load-bearing walls and ramp slab; custom viscous

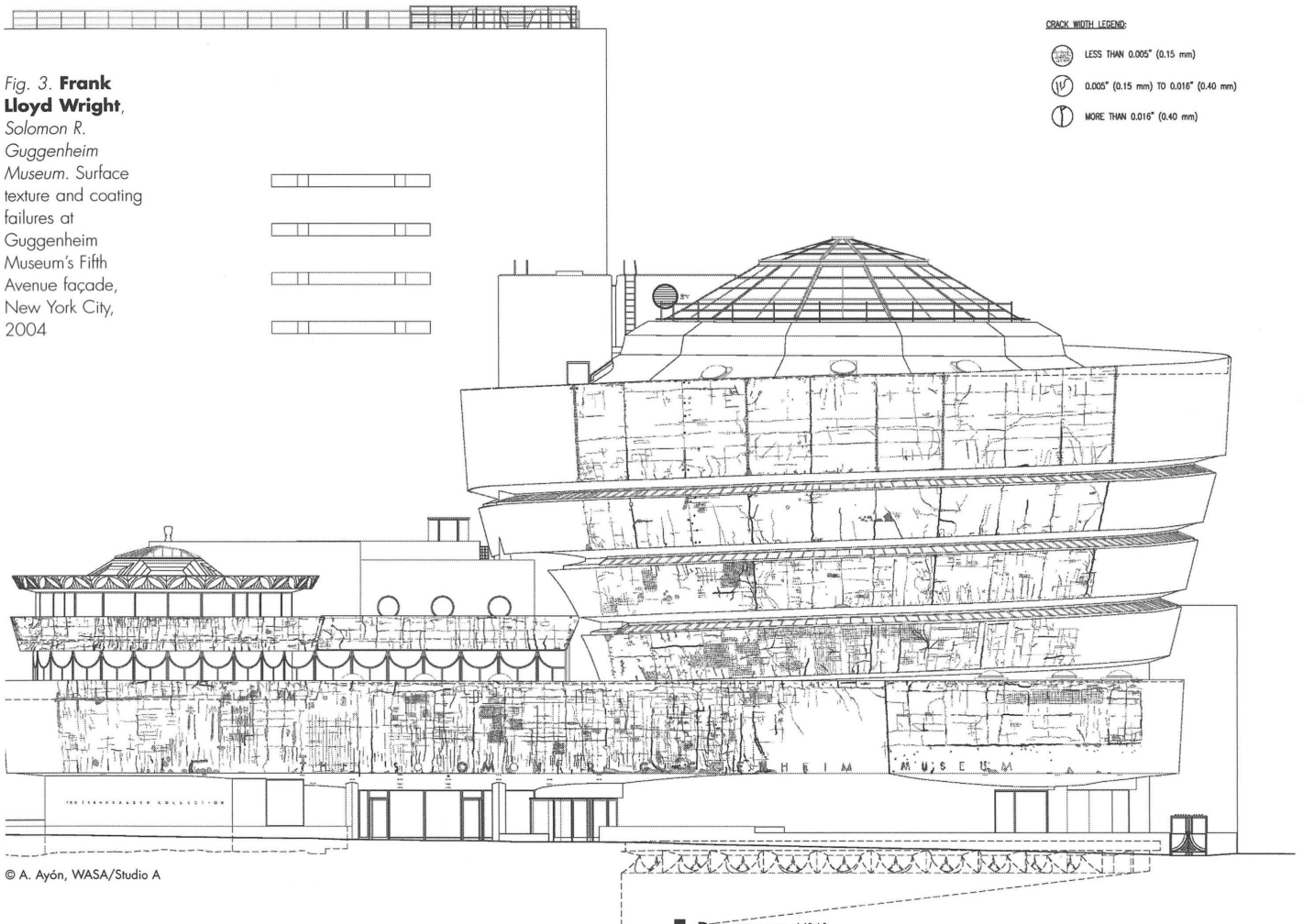


Fig. 3. **Frank Lloyd Wright**, *Solomon R. Guggenheim Museum*. Surface texture and coating failures at Guggenheim Museum's Fifth Avenue façade, New York City, 2004

dampers installed along the top of the wall to allow movement under temperature load and brace the wall during heavy winds; grouting of voids; and corrosion treatment as part of the exterior repairs.
In accordance with the project's preservation approach, the final repairs did not alter the appearance of the exterior walls, and finishes conceal all interior repairs.
To evaluate performance of the repairs, a long-term monitoring program has been implemented. Over the coming years, monitors will measure corrosion activity, strain on the carbon fiber, local movement at selected cracks, and overall wall movement.

MATERIALS TESTING AND CONSERVATION TREATMENTS

A detailed materials testing program and color investigation was implemented in order to choose the most appropriate repair system, including crack fillers, patching materials and protective coatings.
The color study was based on 110 paint samples collected from numerous locations on the building. All specimens were viewed by stereo-binocular reflected light microscope at approximately 30x magnification. Ten layers were typically found, starting with a translucent blue primer and a thick buff (light brown) layer, which was the original finish. Archival records indicate that this finish was an elastomeric coating called Cocoon, which was applied at a typical dry film thickness of 0.45mm.
The repair-oriented testing program was carried out both in the laboratory and in the field. After vetting of major manufacturers, including interviews of their technical representatives, six companies were asked to recommend a single product in each repair category, to be evaluated through the testing program.
Several performance criteria were defined for each repair product. The crack fillers were chosen for elongation capabilities, a return of shape, low shrinkage and suitability for a range of crack sizes. Criteria for patching were that the material have good adhesion and be similar in mechanical properties to the gunite, have low shrinkage, and good freeze/thaw resistance.
The concrete's low depth of carbonation, attributed to the protection of the original Cocoon's high build, prompted a coating selection criteria based on its ability to achieve substantial thickness, adhere to smooth surfaces, be color stable, bridge cracks, and allow the original formwork marks to translate through to the surface.
The stringency of the selection process made it critical to test a compositional range of commercially available repair products. For the crack fillers, acrylic- and silicone-based, and cementitious products were chosen. For the coating, an inorganic and several acrylic-based materials were included. For patching, all were polymer-modified cementitious formulations. In each category there was one fiber-containing product.
Laboratory studies of proposed conservation products were done on test panels that replicated the composition of the original gunite *(fig. 6)*. The testing included accelerated weathering for 1,500 hours, which exposed the panels to cycles of heated condensation, dry ultraviolet light, and cold water sprays. Adhesion and color change measurement, before and after QUV, allowed for performance assessment of the repair materials.
A freeze/thaw weathering test was also conducted on treated panels, and water vapor transmission rate measurements were done on the potential coatings, applied to original gunite samples.
The fieldwork consisted of two rounds of in situ mock-ups representing a variety of conditions. This was undertaken with the repair systems that performed well in the laboratory test program. These mock-ups were monitored for several months. After the completion of all laboratory testing and of the second set of mock-ups, one manufacturer's repair system was selected for full-scale implementation.
During construction, remedial control joints were introduced at key locations *(fig. 7)*. Hands-on administration of custom conservation techniques provided for the retention of original formwork-related surface characteristics, and for their replication in the patching composite. A state-of-the-art coating which mimicked and enhanced the properties of the original Cocoon was applied.

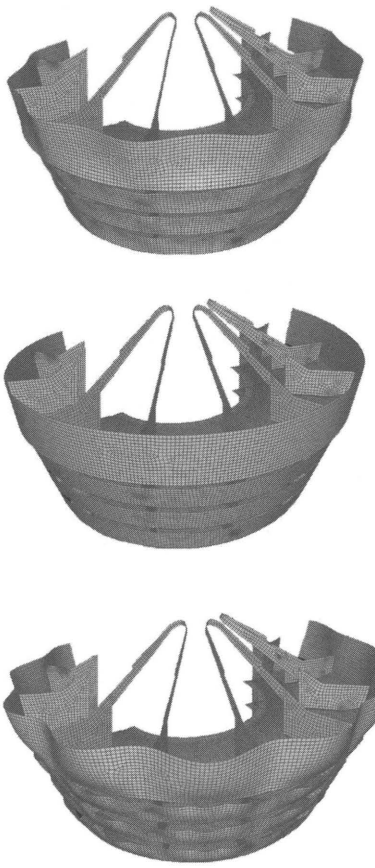


Fig. 4. **Frank Lloyd Wright**, *Solomon R. Guggenheim Museum.* Structural analysis of showing wall movement at the Rotunda under temperature loads

EXTERIOR GLAZED ENCLOSURES

At the Guggenheim's northernmost end—originally known as the Monitor—polygonal-shaped, floor-to-ceiling steel-frame glass-walls lead to perimeter balconies.
The original glass-walls were made of a single-glazed, non-thermally broken, galvanized steel-frame system. Unlike the Rotunda, they convey a sense of transparency

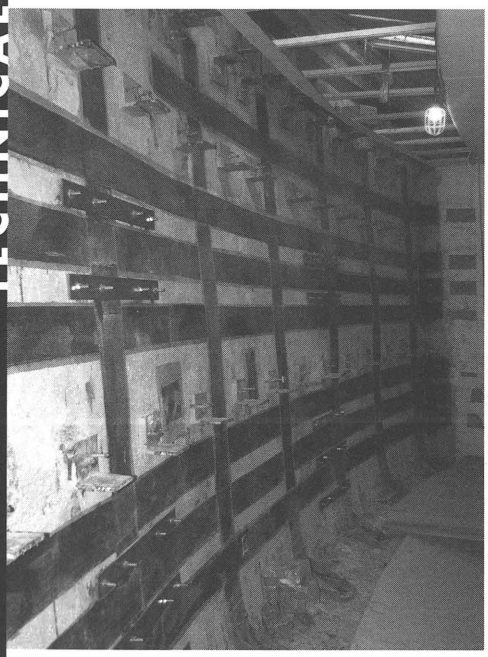


Fig. 5. **Frank Lloyd Wright**, *Solomon R. Guggenheim Museum.* Carbon fiber reinforcement at the interior face of the Rotunda's uppermost wall

Fig. 6. **Frank Lloyd Wright**, *Solomon R. Guggenheim Museum.* Sample treatment in the laboratory for testing of repair products, New York, 2006

and extroversion suitable to the non-exhibition spaces they were originally designed for, and to Wright's vision of organic architecture, where a building embraces, rather than separates, the indoor and outdoor environments that it is meant to demarcate.

During the winter, water vapor from the museum's warm and humidified indoor air condensed on the colder surfaces of the glass panes, steel frames and mullions. Such seasonal condensation compromised the stability of the indoor environment, led to energy loss, increased demand for air conditioning, and the need for mechanical equipment of larger size and capacity. It also reduced interior-exterior visibility, and produced surface runoffs that became a slipping hazard and rendered the gallery unfit for displays during the winter. Similar conditions occurred along the single-glazed and aluminum-framed perimeter skylights.

Several options to refurbish the original glazed enclosures and skylights were considered, including upcoming nanotechnologies such as thermal-protection coatings, insulating blankets and heated glass. It was concluded, however, that refurbishment would have significantly modified the appearance of the historic metalwork, and would have been injurious to original historic fabric in a sound conservation state.

In addition, the refurbishment options to retain the well-preserved metalwork were not fully functional or warrantable, and their performance was unpredictable.

Despite the good physical condition of the steel-frame glass-walls and aluminum skylights, their poor performance made replacement the more appropriate upgrade option. Consequently, an unprecedented thermally-broken steel-frame system matching the appearance and sightlines of the original glass-wall was installed *(fig. 8)* and finished with the original silver color determined by paint analysis. Energy models were devised for the new system, using software by the Windows & Daylighting Group from Lawrence Berkeley National Laboratory. Innovative construction details were proposed by selected manufacturers, and comparative laboratory testing of two system prototypes was undertaken at a testing agency. Similarly to the glass walls, a thermally-broken aluminum skylight system matching the original layout and profile was designed, tested and installed to replace the originals.

Fig. 7. **Frank Lloyd Wright**, *Solomon R. Guggenheim Museum.* In situ mock up for evaluation of repair products for concrete patch, New York, 2007

BUILDING ENVELOPE, THERMAL AND MOISTURE PROTECTION

The 1992 work provided, for the first time, concealed rigid insulation as part of the exterior wall assemblies in the Rotunda. This upgrade led to interior surfaces that were drier and warmer during cold seasons, yet moisture-related damage remained a concern. Throughout the winter, temperature and relative humidity data collected

at several locations indicated higher moisture content at one interior data point. On two isolated cold events, while the entire wall system was protected from rain by temporary scaffolding, liquid water was documented weeping outward from the uppermost wall through horizontal cracks in the concrete. The analysis of these conditions led to the adoption of protective building-envelope measures aimed at (1) controlling air flow through wall assemblies; (2) reducing rain loading on the walls; and (3) reducing the effect of cold bridging where the exterior walls meet the floor slabs, interior walls and new steel reinforcement. To that effect, transient modeling focused on investigating the effects of insulation, interior vapor-retarding materials, and exterior water-protection films. Moisture modeling was developed according to the latest boundary conditions specified by ASHRAE 160.[4] Moisture conditions potentially leading to deterioration of concrete and steel were used as the limiting criteria. This study assisted in specifying exterior coatings and designing vapor protection and modifications to the interior insulation.
The upgraded wall assembly included a new fluid-applied air- and moisture-barrier, and cellular glass insulation installed on the interior side of the uppermost Rotunda wall, which was exposed to implement the structural repairs. Final recommendations included isolating and insulating existing wall and ceiling cavities to avoid condensation on the concrete and shotcrete walls, thereby minimizing the potential for corrosion of the steel reinforcement.
Building-envelope studies determined that minimizing wall exposure to moisture was essential to ensure long-term durability of both the repairs and the original concrete. Consequently, a custom cementitious topping was discreetly provided along the top of the wall parapet to waterproof it, and modify its pitch inward. This solution, which does not fully eliminate surface exposure to rainwater runoff, is a compromise that substantially reduces soiling and exposure to moisture, while retaining the integrity of the Guggenheim's appurtenance-less modernism.

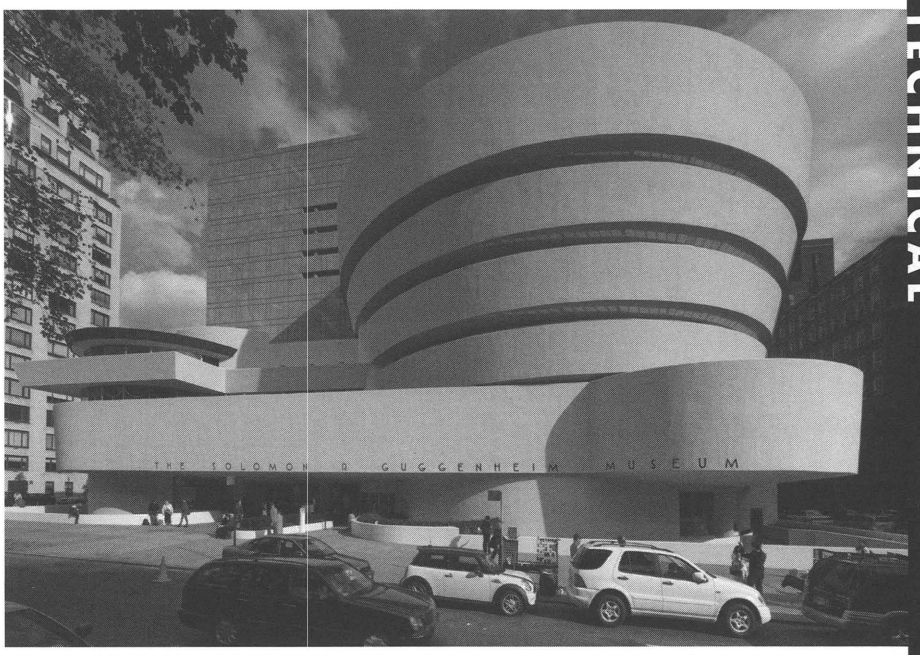


Fig. 8. **Frank Lloyd Wright**, *Solomon R. Guggenheim Museum.* New York City, built 1956–1959. **Gwathmey Siegel & Associates Architects**, addition and expansion, built 1989–1992

With the strong foundation of a preservation philosophy and a well-documented condition assessment, the project team's comprehensive architectural, materials and structural analysis gave way to a conservation program fully suited to the nature and condition of the building.
In summary, the team crafted an approach to the selection of new materials and methods that extended its service life, inserted structural corrections to the building envelope where needed, and upgraded environmental performance without compromising the character of Wright's iconic modern masterpiece.

BY *Angel Ayón, LEED AP; Pamela Jerome, AIA, LEED AP; Leonard Franco, AIA; and Carl Rothbart from WASA/Studio A; Glenn Boornazian, Norman Weiss and Amanda Trienens from Integrated Conservation Resources; Robert Silman, PE; Edmund Meade, PE; and Nancy Hudson, PE; from Robert Silman Associates, P.C. and Bill Rose from William B Rose & Associates.*

ANGEL AYÓN, *a senior associate for Preservation at WASA/Studio A, specializes in documentation, conditions assessment, repair and adaptive reuse of historic buildings and sites. He was the project architect for the exterior restoration and building enhancement of the Guggenheim Museum. He holds a professional degree in Architecture and a M.Sc. in Conservation and Rehabilitation of the Built Heritage from the Higher Polytechnic Institute in Havana, Cuba, and a post-graduate certificate in Conservation of Historic Buildings and Archaeological Sites from Columbia University, New York.*

BIBLIOGRAPHY

AYÓN, ANGEL, ET AL. "Preserving a Modern icon: Recent Work at the Guggenheim Museum." *Docomomo_US Newsletter* (Spring 2009): 9–11.
D'ARCY, DAVID. "The Restoration Era." *The Architect's Newspaper* 3 (2006): 14.
HART, SARA. "Guggenheim face-lift retains original wrinkles." *Architectural Record* 12 (2008).
JEROME, PAMELA, ANGEL AYÓN AND PAUL M. SCHWARTZBAUM, "Restoration and Building Enhancement of Frank Lloyd Wright's Solomon R. Guggenheim Museum in New York." *News in Conservation* 6 (2008): 4–5.
POGREBIN, ROBIN. "The Restorers' Art of the Invisible," *The New York Times* (September 10, 2007).

NOTES

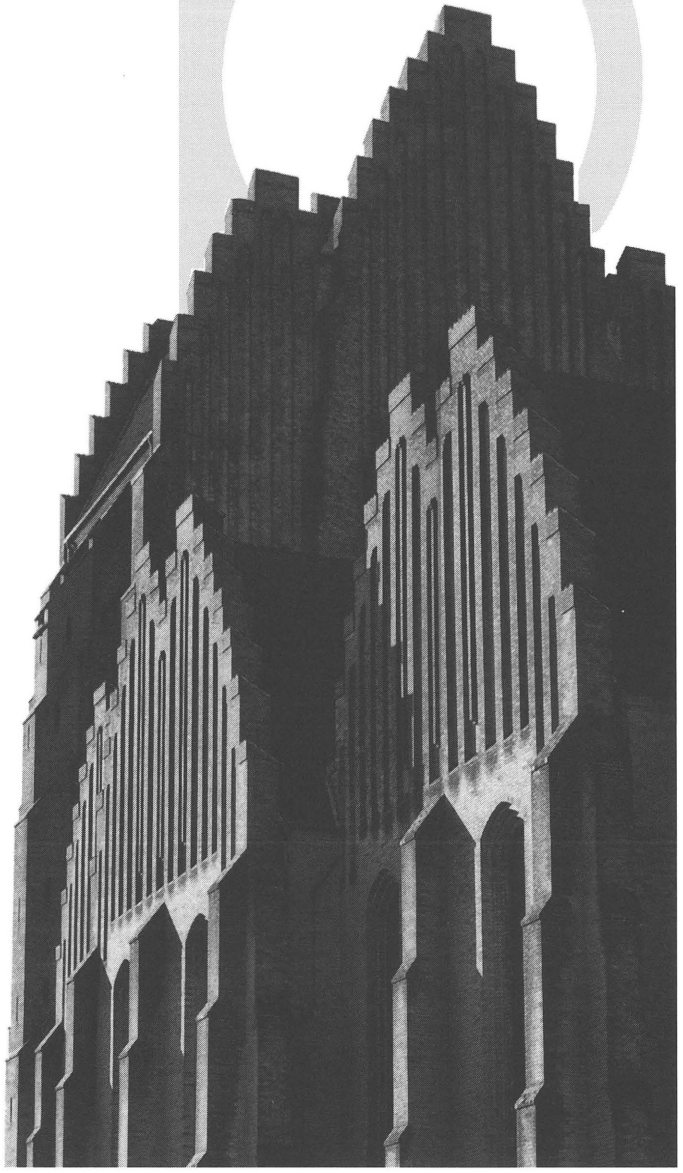
1 Solomon R. Guggenheim Foundation, Chronology, 1937, http://www.guggenheim.org/guggenheim-foundation/history/1920s1940s (accessed April 6, 2009).
2 Frank Lloyd Wright to George Cohen, October 2, 1958, Frank Lloyd Wright Correspondence, Research Library, The Getty Research Institute for the History of Art and the Humanities, Los Angeles, CA.
3 George Cohen to —, December 8, 1958, Frank Lloyd Wright Correspondence, Research Library, The Getty Research Institute for the History of Art and the Humanities, Los Angeles, CA.
4 American Society of Heating, Refrigerating, and Air-Conditioning Engineers, ASHRAE Standard 160, Criteria for Moisture Control Design Analysis in Buildings, Atlanta, GA, 2009.

GLORIOUS BRICK AND HUMANE CONCRETE

P.V. JENSEN-KLINT

It is well over forty years since I went to Denmark searching out the work of the modernists of the time. During my stay someone took me to one side and asked whether I had had a chance to see the Grundtvig Church of Jensen-Klint. It was a name I did not know and a church of which I had no knowledge at all. I was told it was one of the greatest pieces of church architecture in Denmark and not to be missed. So I went and saw this colossal brick church enclosed by a small estate of houses built also in Danish commons.

Under the auspices of the Royal Danish Academy we can now enjoy a full and exhaustive history of its design and construction by Thomas Bo Jensen. An ambitiously large publication, it does justice to this amazing building with a lucid text and fine drawings by Jensen-Klint, as well as period photos and additional material from his architect son and heirs.



Peter Vilhelm Jensen-Klint (1853–1930) proved in his long life time that he was always an autodidact as well as a consummate engineer, architect and artist and as idiosyncratic as they came at the turn of the century. As a personality, he galvanized a new generation of architects working for a modern world but remained fascinated with nature's laws and principles expressed in the crystal fragmentation and patterns which form the basis of the ideas behind his early twentieth century churches.

Bo Jensen has fulfilled his aim to search out all the connections and influences on the architect, taking in initially at the Church's conceptual phase the image of the crystal, the prismatic crystal knot, which emerged as a pattern for the towers and the bells which they support. Over 27 years the architect prepared drawings that gave the exact location of every brick, exposing every nook and cranny, combining them to create a glorious finale for a church that took nearly a lifetime to complete. This sumptuous structure had a consistent combination of materials virtually unknown elsewhere in the twentieth century, perhaps with the exception of the newly executed cathedrals in London and Paris.

The early drawings, it appears, were a product of the pre-war years, at a time when Taut and Scheerbart were developing their own much less ambitious ideas for the crystal form and the 'house of prayer' at the Werkbund Cologne exhibition of 1914 but, they also, it is argued, showed a keen admiration for Heinrich Tessenow and his work at Hellerau, a kinship Jensen-Klint himself acknowledged. Although this estimable book focuses tightly on Grundtvig's

Church (a name given to the church by others rather than a distinctive choice by Jensen-Klint) it also includes examples of his other works in Denmark and some rather sensitive comments from Steen Eiler Rasmussen, and others whose names I am much less familiar with.

There are over 450 pages of text with captions and pictures, including early sketches of the meticulously drawn out versions of the Grundtvig Church and other examples including the churches of Vodskor, Anna's, Gedser's and the Church of Peace (1913–1920) as well as a list of competition projects over the 1904–1918 period. The book features incredible drawings, sections, elevations and plans of the Church which has occupied the site since 1925 when the topping out ceremony for the towers occurred. That year too, work began on the stepped walls of the porch. In 1928 work on the porch, nave and crypt continued, and 1.3m yellow bricks and 2m common bricks were delivered to site.

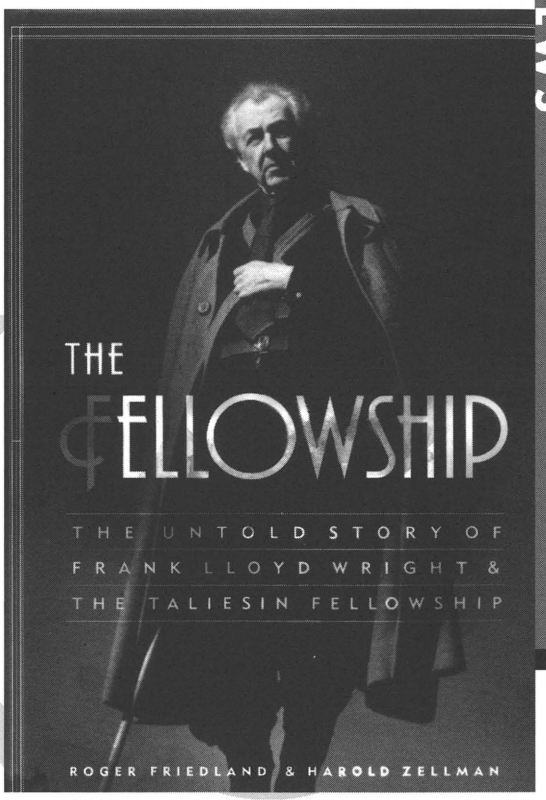
In 1930 Jensen-Klint died after unfortunate accidents, and the responsibility of completing the church fell on the shoulders of his son, architect Kaare Klint. In 1965 the great church was inaugurated again, this time by Kaare's son. Today its power remains undiminished as a tribute to the brick architecture of the times and it stands not only as an example of the individualistic mind of a largely self-made architect but also demonstrates the sheer endeavor and energy that enabled this unique structure to materialize.

Thomas Bo Jensen. *P.V. Jensen-Klint: The Headstrong Master Builder*. London. Published by the Royal Danish Academy of Fine Arts, School of Architecture, Copenhagen, 2009; distributed by Routledge, London. 504 p. ISBN: 978 0415553186.

MASTERS AND THEIR DISCIPLES

There has been a distinct change in direction in the biographical material on architects over recent years, entering the nitty gritty of their real lives.

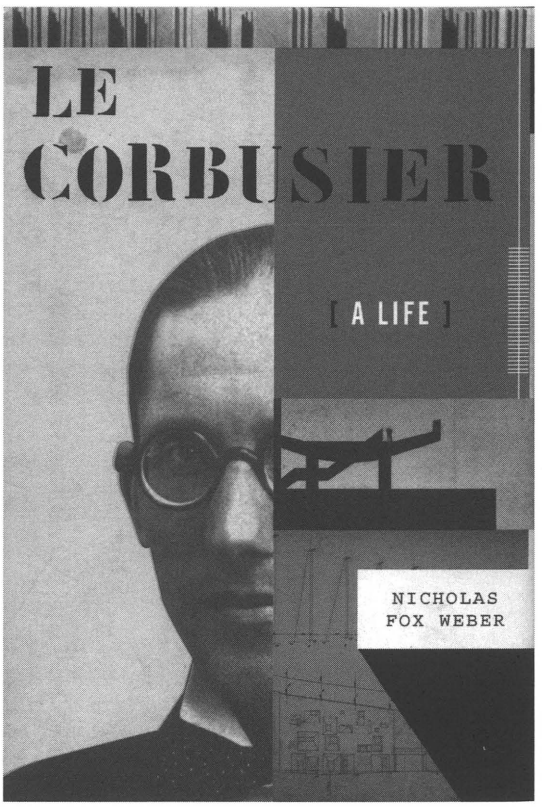
Two books have excited my imagination over the past months, neither of which I have yet finished (largely due to their rich content). But I would like to share with you the thrill of the insightfulness of one publication on Frank Lloyd Wright by Roger Friedland and Harold Zellman, and of the simply titled *Le Corbusier: A Life* by Nicholas Fox. I mention both as the comprehensive nature of their contents reaches a new level of understanding, placing the life, the architects, their clients and the student world they often entered, into vivid accounts of the involvement of all parties. This is story-telling at its very best. The titles I refer to are: *The Fellowship: The Untold Story of Frank Lloyd Wright and the Taliesin Fellowship*, and *Le Corbusier: A Life*.



Le Corbusier's life story is focused on the man, his work, family life and pleasures and his ideas which are very clearly expressed with an acute sense of the relevance of the many philosophies he so often expounded. The book provides a continuous text (1–762) but is divided into bite-sized sections taking the reader through the many different aspects of Corbu's life from the earlier years in La Chaux-de-Fonds to the Maison Jaoul and his own sad end.

Roger Friedland & Harold Zellman. *The Fellowship: The Untold Story of Frank Lloyd Wright and the Taliesin Fellowship*. New York: Regan, 2006. 704 p. ISBN: 978 0060393885.

Nicholas Fox Weber. *Le Corbusier: A Life*. New York: Knopf, 2008. 848 p. ISBN: 978 0375410437.

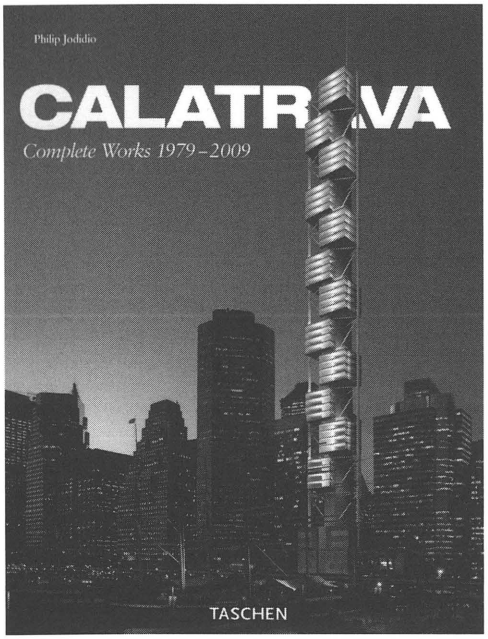


THE ART AND ARCHITECTURE OF CALATRAVA

There has been an enormous traffic in books on Calatrava extolling the virtues of his approach to architecture, engineering, art and design but few have seen the point of bringing together the relationships between the art and architecture content implied in his work and linking it in a coherent manner in one volume.

Calatrava's admiration for the preceding generation of engineers, such as Nervi, Torroja, Candela and Maillart, goes beyond merely solving technical issues. He is always engaged in the pursuit of structural integrity, a key aspect of modern architecture.

Calatrava considers engineering "the art of the possible." Having collaborated as a British associate with Calatrava for some years, I learnt a lot from him about his interest in modernism, and that amongst the work he admired were Le Corbusier, Moholy-Nagy, Calder, and Gabo. This publication is unique as it acknowledges the link between Calatrava's attitude to art and architecture. It explores a more interesting way of seeing his work than through the more flamboyant projects over which I do have some reservations. It is shown in a consistent way in this publication.



Some people are amazed that Calatrava works through watercolors and sketches often inspired by sketches of dynamic human figures or classical music, and produces some of the most significant buildings and bridges of our age.

"Art and emotion drives Calatrava," Jodidio claims in his introduction to this new and extensively packed 500-page single volume version of the architect's *œuvre complète*. Here we have Taschen, unlike other publishers, looking at the work in sequence, keeping the descriptions succinct (sadly often leaving out sections and plans) but providing a key to the often heterogeneous nature of the projects themselves. Calatrava's work moves from concert hall and opera house to railway stations and some of the world's most elegant bridges but is kept in check by constant references to human and animal forms. It is that control of engineering and sense of architectural space that animates so much of his work.

However, it has taken some time to understand the continuity of this fusion of art, image and built result. Art and project, emotion and drawing as well as competence, merge together as each project is prefaced by the watercolors Calatrava fastidiously produces as the building idea develops on Whatman paper and drawing pad. Out of it grow the dynamics of the structures but also the sheer energy that lies in the sketches of the human forms that have evoked its shapes. It is a brave thing to do. The book brings in Calatrava himself to relate his original input of drawings into the creation of the artefact. It is, I know, a profound moment for the architect when such connections work.

Philip Jodidio. *Calatrava: Complete Works 1979–2009.* Cologne: Taschen, 2009. 528 p. ISBN: 978 3836510233.

DENNIS SHARP, *co-chair, Docomomo UK, recently published a book on the modernist practice of Connell Ward and Lucas; he is working on a new book on* Frank Lloyd Wright in England.

GREEN MODERNITY

The year 2009 marks the hundredth anniversary of the birth of Roberto Burle Marx (1909–1994), the twentieth century's most famous landscape architect. Several manifestations have celebrated the anniversary, among which the exhibition Roberto Burle Marx 100 Anos: a Permanência do Instável (shown in Rio de Janeiro and São Paulo) and the publication of Guilherme Mazza Dourado's book *Modernidade verde. Jardins de Burle Marx*.

In his introduction to the book Hugo Segawa discusses the critical reception and fortune of Burle Marx's vast oeuvre, emphasizing the outstanding vitality of his design, a unique trademark. Burle Marx was at the same time "landscape architect, environmentalist, botanist, gardener, painter, etcher, artist-weaver, sculptor, teacher, jewelry designer, opera singer, chef, gourmet, friend." Paradoxically enough, scholars have recently focused on diverse, sometimes even minor, aspects of Burle Marx's overwhelming career, and have neglected his major contribution, that is his work as a landscape architect, of which all other activities and actions were merely sophisticated and tasteful bonuses.

Indeed, the inventive Brazilian landscape designer also employed his fertile imagination to painting table cloth, designing opera stage sets, drawing book and magazine cover pages, or creating toys and jewels. This multifaceted attitude has encouraged the reading of his personality as that of a total artist and given space to a simplified interpretation reducing his landscape designs to one among the many expressive forms of his fantasy. As a result the many parks and gardens Burle Marx designed in a time span of more than five decades have come to be seen as the almost mechanical translation of forms deduced from painting, colored matter applied to natural ground rather than canvas.

In the first place, the new book written by Guilherme Mazza Dourado aims at re-establishing priorities in considering the artistic and scientific endeavors undertaken by Burle Marx, the landscape architect.

The book begins with the discovery of the naturalness that Burle Marx encountered during his early visits to botanical gardens, and above all through his rambles across the Atlantic Forest (Mata Atlántica), where the extraordinary variety of species of that natural environment was at first fully brought to light.

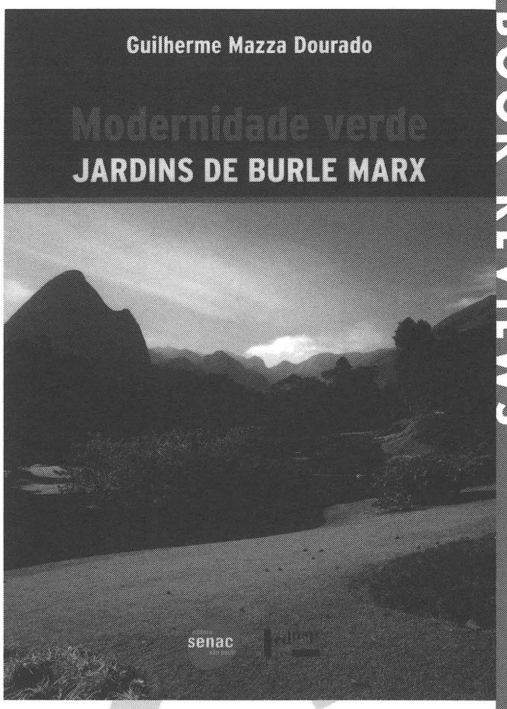
The second section of the book focuses on Burle Marx's aesthetics in garden design. He introduced the use of floral species that were almost unknown in traditional gardens or any landscape design before he entered the field. In addition, he invented a new language through the composition of groups of floral species of the same botanical family, which were well integrated into the clear-cut lines of modern architecture.

The third section discusses Burle Marx's unique ability at creating the identity of places. He always strived to contextualize his green creations and architecture, and knew how to create a real link between built artifacts and their environmental context via his own gardens.

In appendix, besides a large bibliography, Mazza Dourado produces a very detailed glossary of all the botanical species that can be found in Burle Marx's gardens and parks. This is far from being a minor detail, although some architects and historians might consider it ancillary. Mazza Dourado gives a unique insight into Burle Marx's oeuvre *magistralis* and his innovative contribution to the discipline: Burle Marx's masterpieces owe nearly as much to his profound knowledge of botanical species and the environmental heritage of his own country as they do to his genius. His entire professional life was an unyielding process of learning and experimenting.

The Flamengo Park (1961–1965) in Rio de Janeiro is an excellent example of his double-sided skill. Along the newly reclaimed area encircling the bay he planted more than 16,000 plants of almost 250 species. The park's design was the result of a multitude of devices juxtaposing free and densely laid out spaces, incorporating water pools that reflect the surroundings, inventing a narrative language through landscape sequences, creating textures of colors and forms and incorporating the relationship with the existing landscape. Mazza Dourado's attention to the botanical aspects of these gardens and parks leads on to the final consideration of garden maintenance: gardens are fragile artifacts requiring continuous care and relying wholly on the natural materials they are made of.

Nowadays, only a limited number of private gardens are properly cared for, when their well-educated owners love the very unique environment they provide (Vargem Grande being the best example speaking for a few others), while public parks are often abandoned if not entirely gone. A catalogue raisonné of Burle Marx's projects has yet to be done, as well as a comprehensive list of the botanical species he used. This is the sine qua non condition to initiate any restoration project. Paradoxically, at a moment when Burle Marx is



celebrated for the hundredth anniversary of his birth, some of his most famous parks are disappearing. And the story will have come full circle in about fifty years, when Burle Marx will only be remembered as a relatively modest painter.

Guilherme Mazza Dourado. *Modernidade verde. Jardins de Burle Marx*. São Paulo: Senac, Universidade de São Paulo, 2009. 385 p. ISBN: 978 8573598575.

FRANCO PANZINI *is a landscape architect and historian. He teaches at the Venice School of Architecture. His most recent book,* Progettare la natura, *was published in 2005.*

Roberto Burle Marx, *Garden in the Fazenda Vargem Grande*, Areira (São Paulo), 1979–1980

continuity and change

Continuity and Change

Docomomo is a worldwide network of people motivated by the belief in the value of the modern movement's architecture. It gathers professionals, practicing architects and town planners, and researchers, historians and theoreticians, sharing a strong conviction of the importance and innovation of the modern project. As a result, the network is inclined to consider modernity as a worldwide heritage, and to think of it as a sustainable design tool, a project method, and finally, as being crucial to the future of architectural production and cultural debates.

In order to sustain the spirit of Docomomo, the new headquarters housed at the Mies van der Rohe Foundation in Barcelona are convinced that the challenge of forthcoming decades ought to be addressed with a twofold strategy: on the one hand, by implementing changes in use and transformation processes on buildings, neighborhoods and landscapes of the modern movement, through highly skilled, sustainable and exemplary interventions; and on the other, by broadening the organization's territorial range, investigating new cultural and geographical territories where modern architecture has played a significant role. Our goal will remain, I am sure, to demonstrate modern architecture's enduringly valid thought processes, and thus to ensure the recognition of modern identities worldwide.

During its almost two decades of existence, Docomomo has created an international network of researchers, experts and sympathizers currently gathering more than fifty chapters located on the five continents. The importance of Docomomo as a recognized worldwide organization, and its capacity to develop initiatives promoting the exchange of ideas and experiences and drawing public attention, will grow provided the institution continues to arouse interest on the part of individuals involved in heritage conservation, from researchers to administrators, and of the public opinion, which today still tends to consider twentieth-century architectural heritage with a certain degree of indifference. In this sense, this heritage should be understood as a model—or even a manifesto or symbol—for sustainable architectural developments, redefining the legacy of modernity in globalized societies.

Pepo Segura © Fundació Mies van der Rohe, Barcelona

As we know, the conservation and transmission of this heritage are a demanding entreprise and possible only if society as a whole reaches a clear understanding of the modern movement. To this purpose, it is important to intensify Docomomo's activities in the different media, through programs already developed by the organization, among which preservation assessments, our website, various exchange and collaboration networks, as well as congresses and workshop seminars during which interventions on modern movement works are debated.

That is why the *Docomomo Journal* has a fundamental role that should be developed with energy and competence. It is the official voice of Docomomo International and has become an unavoidable reference in modern architecture thanks to the commitment and competent engagement of editors Maristella Casciato and Émilie d'Orgeix with Anne-Laure Guillet's coordination. As a stimulating collective project, the intelligent and generous method of inviting guest editors according to the issues selected has improved the quality of contents and confirms the fruitfulness of the Docomomo network.

We also wish to uphold Docomomo's collective nature, a characteristic typical of the modern movement project itself, which was an innovative social, spatial and technological project committed to society's progress, addressing the challenge of a brave new world. We all know that architecture as a social production imposes a great responsibility on the architect. As future chair, I am aware of the responsibility to which I am committing myself but I am also sure that Docomomo's network is the guarantee of a shared efficiency and competence. Our mission will be to support the vitality of this unique network and to attend to its most pressing objective, that of preserving the authenticity of the modern legacy.

ANA TOSTÕES

will start chairing Docomomo International on January 1st, 2010.

continuité et change-ment

Continuité et changement

Docomomo est un réseau d'individus qui partagent la même croyance en la richesse de l'architecture du mouvement moderne. L'organisation rassemble des professionnels, architectes et urbanistes, chercheurs et praticiens, historiens et théoriciens, rassemblés par la même conviction de l'importance et de l'actualité du projet moderne. Cette affinité avec la modernité est envisagée comme un patrimoine à l'échelle mondiale, comme un outil de projet, comme une méthode pour penser le projet et, finalement, comme une clé pour l'avenir de la production architecturale et du débat culturel.

Afin de perpétuer l'esprit Docomomo, le programme du nouveau secrétariat, hébergé par la Fondation Mies van der Rohe à Barcelone, se fonde sur la conviction que l'avenir devra être développé à travers une stratégie double. D'un côté, par des opérations d'utilisation, de changement et de transformation, c'est-à-dire par des interventions qualifiées, durables et exemplaires sur des édifices, des quartiers et des paysages du mouvement moderne.

De l'autre côté, en poursuivant la tâche d'élargissement géographique, en cherchant de nouveaux territoires culturels et physiques sur lesquels l'architecture moderne a joué un rôle significatif. En convoquant de nouvelles géographies et des interventions modèles, notre objectif sera, je le crois, la confirmation de la longévité du processus de pensée de l'architecture du mouvement moderne, assurant la reconnaissance des identités culturelles modernes dans le monde.

Pendant ses deux décennies d'existence, Docomomo a créé un réseau international de chercheurs, experts et sympathisants structuré en plus de cinquante sections localisées sur les cinq continents. Sa reconnaissance à l'échelle internationale et sa capacité à développer des initiatives pour l'échange d'idées et d'expériences impliquent de susciter l'intérêt des parties concernées par le processus de conservation patrimoniale – chercheurs, cadres et grand public

Pepo Segura © Fundació Mies van der Rohe, Barcelona

– qui aujourd'hui encore regardent le patrimoine du XX^e siècle avec une certaine indifférence. Ce patrimoine doit être reconnu comme modèle – voire comme manifeste ou symbole – pour un développement architectural durable et capable de redéfinir l'héritage de la modernité dans les sociétés globalisées.

La conservation et la transmission du patrimoine sont une tâche difficile qui réclame de la part de la société de comprendre et d'évaluer l'architecture du mouvement moderne.

C'est pourquoi il est important d'intensifier l'intervention Docomomo auprès des différents médias, et ce au travers de programmes déjà développés par notre organisation : les conférences et les ateliers internationaux, les séminaires qui débattent des interventions sur les édifices du mouvement moderne, le site Internet, l'évaluation des actions de protection, le réseau d'échange et de collaboration.

C'est pourquoi le Docomomo Journal *joue un rôle fondamental que nous souhaitons développer avec compétence et énergie. Il est le porte-parole de Docomomo International et est devenu une référence indispensable sur le thème de l'architecture moderne grâce à l'engagement et à la compétence de ses éditeurs, Maristella Casciato et Émilie d'Orgeix, et la coordination d'Anne-Laure Guillet. Projet stimulant et collectif, la méthode intelligente et généreuse qui consiste à faire appel à des éditeurs invités pour les dossiers thématiques a permis d'améliorer le contenu de la publication tout affirmant la richesse du réseau Docomomo.*

Nous souhaitons maintenir le caractère collectif de Docomomo, une qualité propre à la nature première du projet moderne. En d'autres termes, il s'agit d'un projet novateur en termes social, spatial et technologique, en prise directe avec la communauté et le défi d'un monde meilleur. L'architecture, comme production sociale, impose une énorme responsabilité à l'architecte. C'est pourquoi, en tant que future présidente, j'ai la conviction de la grande responsabilité qu'induit mon engagement. Mais je suis également sûre que le réseau Docomomo est la garantie d'une efficacité et d'une compétence partagées. L'objectif sera de valoriser la vitalité de ce réseau unique et de mettre en œuvre sa mission la plus urgente : protéger et valoriser l'authenticité de l'héritage moderne.

ANA TOSTÕES
présidente de Docomomo International à partir du 1er janvier 2010

DOCOMOMO INTERNATIONAL

Hubert-Jan Henket, honorary president

Until December 31st, 2009:
Maristella Casciato, chair
Émilie d'Orgeix, secretary general
Anne-Laure Guillet, director
Cité de l'Architecture et du Patrimoine
1, place du Trocadéro. F-75016 Paris
p 33 1 58 51 52 65
e . . . . . docomomo@citechaillot.fr
w . . . . . www.docomomo.com

From January 1st, 2010:
Ana Tostões, chair
Ivan Blasi, secretary
c/ Provença 318 pral 2
08037 Barcelona, Spain
p 34 932151011
f. 34 934883685
e. . . . . docomomo@miesbcn.com
w . . . . . www.docomomo.com

Executive Committee
Maristella Casciato, chair
Émilie d'Orgeix, secretary
Ola Wedebrunn, Docomomo Denmark
Louise Noelle, Docomomo Mexico

Advisory Board
Wessel de Jonge, Docomomo NL
Theodore Prudon, Docomomo US
Scott Robertson, Docomomo Australia
Dennis Sharp, Docomomo UK
Hiroyuki Suzuki, Docomomo Japan
France Vanlaethem, Docomomo Quebec

DOCOMOMO LIST OF INTERNATIONAL SPECIALIST COMMITTEES (ISCs)

International Specialist Committee on Registers
Panayotis Tournikiotis, chair
Marieke Kuipers, vice-chair
Inge Bertels, secretary
Department of History
Antwerp University
Prinsstraat 13 (D-317)
B-2000 Antwerpen
p 32 03 220 49 90
e . . . . . .Inge.Bertels@ua.ac.be
w . . . . . .www.docomomo-registers.org

International Specialist Committee on Technology
Ola Wedebrunn, chair
Kyle Normandin, secretary
e . . . . . ola.wedebrunn@karch.dk
e . . . . . knormandin@wje.com

International Specialist Committee on Urbanism + Landscape
Miles Glendinning
Scottish Centre for Conservation Studies
School of Architecture
Edinburgh College of Art
74 Lauriston Place
Edinburgh EH3 9DF. Scotland
p 44 0 131 221 6168
e . . . . . .m.glendinning@eca.ac.uk

International Specialist Committee on Education + Theory
Ola Wedebrunn, coordinator
e . . . . . .ola.wedebrunn@karch.dk

DOCOMOMO LIST OF CHAPTERS

All coordinators of the Docomomo chapters are kindly requested to report incorrect or incomplete addresses.

Argentina
Argentine Docomomo working party
Mabel M. Scarone, coordinator
Carolina Quiroga, secretary
University of Buenos Aires
Faculty of Architecture
Juramento 2161, 3 "C"
1428 Buenos Aires
p 54 11 4797 2514
p 54 11 4782 3654
f 54 11 4797 2514
e . . . . . .docomomo@arg.net.ar
w .www.fadu.uba.ar/sitios/docomomo/

Australia
Docomomo Australia
Scott Robertson, president
Douglas Evans, vice-president
Louise Cox, treasurer
David West, secretary
GPO Box 161
Sydney NSW 2001
p 61 2 9439 7779
f 61 2 9439 7775
e . . .docomomoAustralia@yahoo.com.au
w . . . .www.docomomoaustralia.com.au

Austria
Docomomo Austria
Norbert Mayr, chairman
Ute Georgeacopol, secretary
Köstlergrasse 1/25
A-1060 Wien
p 43 1 544 04 17
f 43 1 544 04 19
e . . . . . .info@docomomo.at
e . . . . . .office@norbertmayr.com
e . . . . . .ute.georg@ticcih.at
w . . . . . .www.docomomo.at

Belgium
Docomomo Belgium
Luc Verpoest, coordinator
Kasteelpark Arenberg 1
B-3001 Heverlee
p 32 16 321361
f 32 16 321984
e . . .luc.verpoest@asro.kuleuven.ac.be
w . . . . . .www.docomomo.be

Brazil
Docomomo Brasil
Carlos Eduardo Comas, coordinator
Maria Luiza Adams Sanvitto, secretary
Silvia Leão, treasurer
c/o PROPAR Graduate Studies Program
in Architecture
School of Architecture
Universidade Federal do Rio Grande do Sul
Sarmento Leite 320/201
90050-170 Porto Alegre RS
p 55 51 3308 3485
f 55 51 3308 3485
e . . . . . .docomomo@ufrgs.br
w . . . . . .www.docomomo.org.br
e-newsletter: DOCO-MEMOS

Bulgaria
Docomomo Bulgaria
Konstantin Bojadjiev, chair
Vesela Popova, coordinator
Georgi Georgiev, treasurer
Center for Architectural Studies
Bulgarian Academy of Sciences
Bl. 1, Acad. Georgi Bonchev Str.
1113 Sofia
p 35928724620
f 35928724620
e . . . . . .docomomo.bulgaria@mail.bg

Canada-Atlantic
Docomomo Canada-Atlantic
Steven Mannell, coordinator
School of Architecture
Dalhousie University
PO Box 1000
Halifax NS B3J 2X4
p 1 902 494 6122
f 1 902 423 6672
e . . . . . .steven.mannell@dal.ca

Canada-British Columbia
Docomomo British Columbia
Robert Lemon, chair
Marco D'Agostini, coordinator
City of Vancouver
Planning Department
453, West 12th Avenue
Vancouver, BC V5Y 1V4
p 1 604 8737056
f 1 604 8737060

Canada-Ontario
Docomomo Ontario
James Ashby, coordinator
Suite 214
300 Powell Avenue
Ottawa, Ontario K1S 5T3
p 1 613 2313949
e . . . . . .jashby@mnsi.net
periodical: Docomomo Ontario News

Canada-Quebec
Docomomo Québec
France Vanlaethem, chair
Sophie Mankowski, secretary
Richard Lafontaine, treasurer
École de Design
Université du Québec à Montréal
Case postale 8888 succ. Centre-ville
Montréal, QC H3C 3P8
p . . . . . .1 514 987 3000 #3866
f 1 514 987 7717
e . . . . sophie_mankowski@hotmail.com
e . . . . . .docomomoquebec@gmail.com
w . . . . . .docomomoquebec.uqam.ca
periodical: Docomomo Québec Bulletin

Chile
Docomomo Chile
Horacio Torrent, chair
Maximiano Atria, secretary
Prog. de Magister en Arquitectura
Pontificia Univ. Catolica de Chile
El Comendador 1916
Providencia, Santiago
p 56 2 6865601
f 56 2 2328805
e . . . . . .info@docomomo.cl
w . . . . . .www.docomomo.cl

Colombia
Docomomo Colombia
Paula Echeverri Montes, chair
Universitad de Los Andes
Facultad de Arquitectura y Diseño
Departamento de Arquitectura
Carrera 1 Este no 1
18 A – 70 bloque K Piso 2ndo
Bogota
p 571 332 40 28
p . . . . . .571 339 49 49 #2485
e .docomomocolombia@uniandes.edu.co

Cuba
Docomomo Cuba

José Antonio Choy, chair
Eduardo Luis Rodríguez, vice-chair
Eliana Cardenas, vice-chair
Alina Ochoa Aloma, secretary
Calle 17 # 354 entre G y H
Vedado, La Habana 10400
p 537 202 5907
p 537 202 9091
e . . . . . .choy@cubarte.cult.cu
e . . . . . .eluis@cubarte.cult.cu

Curacao
Docomomo Curaçao
Sofia Saavedra, coordinator
San Sebastiaan B8
Postbus 6008
p 59 99 8698851
f 59 99 8698851
e . . . . . .sofias@onenet.an

Cyprus
Docomomo Cyprus
Petros Phokaides, chair
Laodikeias 22
11528 Ilisia
Athens, Greece
p 306973010343
p 35722660510
e . . . . . .docomomo.cyprus@gmail.com

Czech Republic
Docomomo Czech Republic
Jakub Kyncl
Sumavska 416/15
602 00 Brno
p 420 603 197 470
f 420 541 210 037
e . . . . . .jakub.kyncl@seznam.cz
w . . . . . .www.docomomo.cz

Denmark
Danish Docomomo working party
Ola Wedebrunn, chair
Marianne Ibler, vice-chair
The Royal Danish Academy of Fine Arts
School of Architecture
Philip de Langes allé 10
1435 København K
p 45 32 68 6000
p 45 32 68 6229
f 45 32 68 6206
e . . . . . .ola.wedebrunn@karch.dk
w . . . . . .www.docomomo-dk.dk

Dominican Republic
Docomomo Dominican Republic
Gustavo Luis Moré, chair
Marcelo Alburquerque, vice-chair
José Enrique Delmonte, secretary
Zahira Batista, treasurer
Benigno Filomeno #6
Penthouse Norte, Torre San Francisco
Santo Domingo
p 1 809 6878073
f 1 809 6872686
e . . . . . .glmore@tricom.net
www.periferia.org/organizations/dcmm.html

Ecuador
Docomomo Ecuador (provisional)
Katherine Soto Toledo, coordinator
Universidad Tecnica Particular de Loja
Apdo. postal 11 01 608
San Cayetano alto
calle Marcelino Champagnat, s/n
Loja
p . . . . . .598 7 2570275 #2698
f . . . . . .598 7 2570275 #2698
e . . . . . .khsotox@utpl.edu.ec
w . . . . . .www.utpl.edu.ec/docomomo/

Estonia
Docomomo Estonia
Epp Lankots, chair
Triin Ojari, secretary
Estonian Academy of Arts
Institute of Art History
Tartu mnt 1
Tallinn EE 10045
p 372 6267325
f 372 6267328
e . . . . . .epp@artun.ee
e . . . . . .triin.ojari@neti.ee

Finland
Docomomo Suomi Finland ry
Hanni Sippo, chair
Leena Makkonen, vice-chairman
Satu Taivaskallio, secretary
Helsinki City Planning Department
PL 2100
00099 Helsingin kaupunki
p . . . . . .358 40 739 4157 (HS)
p . . . . . .358 40 584 5976 (ST)
p 358 9 1605 5913
f 358 9 485119
e . . . . . .hannisippo@gmail.com
e . . . . . .hanni.sippo@formin.fi
e . . . . . .secretary@docomomo-fi.com
w . . . . . .docomomo-fi.com

France
Docomomo France
Agnès Cailliau, chair
Jacqueline Bayon, vice-chair
Claude Loupiac, vice-chair
Cécile Albagnac, treasurer
Olivier Nouyrit, secretary
Palais de Chaillot
1 Place du Trocadéro
75116 Paris
p 33 1 42 97 56 44
p 33 6 22 71 40 05
f 33 1 42 97 57 34
e . . . . . .agnes.cailliau@wanadoo.fr
w . . . .http://archi.fr/DOCOMOMO-FR

Germany
Docomomo Germany
Monika Markgraf, chair
Anke Zalivako, vice-chair and secretary
Alex Dill, treasurer
Stiftung Bauhaus Dessau
Gropiusallee 38
06846 Dessau
p 49 340 6508 211
f 49 340 6508 218
e . . . . .docomomo@bauhaus-dessau.de
w . . . . . .www.docomomo.de

Greece
Greek Docomomo working party
Panayotis Tournikiotis, chair
Neohellenic Architecture Archives
Benaki Museum
138, Pireos & Andronikou street
118 54 Athens
p . . . . . .30 2103453674 #105
e . . . . . .tourni@central.ntua.gr

Guatemala
Docomomo Guatemala
Raúl Monterroso
estudio+taller de arquitectura y diseño
d. 6 Av. 11-43 zona 1
Oficina 801, Edificio Pan Am
Centro Histórico
Guatemala City
p 502 22 50 07 56
e . . . . . .raulmonterroso@gmail.com

Hungary
Hungarian Docomomo working party
Pàl Ritook, chair
Hungarian Museum of Architecture
Mokus utca 20
1136 Budapest
p 36 4540099
f 36 3672686
e . . . . . .ritookpal@freemail.hu

Iberia
Fundacion Docomomo Ibérico
Celestino García Braña, chair
Susana Landrove, director
Col·legi d'Arquitectes de Catalunya
Plaça Nova 5, 3ª planta
08002 Barcelona, Spain
p 34 933067859
e . . . . .dirdocomomoiberico@coac.cat

Israel
Israeli Docomomo working party
Arie Sivan, coordinator
Department of Interior Design
Colman Academic Studies
7 Yitzhak Rabin Blvd.
Rishon LeZion 75190
p 972 3 9634395
f 972 3 9634393
e . . . . . .ariesi@st.colman.ac.il

Italy
Docomomo Italy
Rosalia Vittorini, chair
Andrea Canziani, secretary
c/o Dipartimento di Ingegneria Civile
Università Tor Vergata
via della Ricerca Scientifica, snc
00133 Roma
p 39 06 7259 70 26
p 39 06 7259 70 31
e . . . . . .segreteria@docomomoitalia.it
w . . . . . .www.docomomoitalia.it
periodical: Docomomo Italia Giornale

Japan
Docomomo Japan
Hiroyuki Suzuki, chair
Kenji Watanabe, coordinator
Department of Architectural and Building Engineering
Faculty of Engineering, Tokai University
1117 Kitakaname, Hiratsuka-shi
Kanagawa, 259-1292
p . . . . . .81 463 581211 #5810
f 81 463 502024
e . . . . . .docomomojapan@yahoo.co.jp
e . . . . . .wtkenji@keyaki.cc.u-tokai.ac.jp

Korea
Docomomo Korea
Yoon, In-Suk, chairman
Yi, Seung-Gu, secretary
Department of Architecture
Sungkyunkwan University
p 82 31 290 7558
p 82 10 4123 9605
e . . . . . .isyoon@skku.ac.kr
e . . . .webmaster@docomomo-korea.org
w . . . . . .www.docomomo-korea.org

Latvia
Docomomo Latvia
Janis Lejnieks, coordinator
Tornu Street 11
Riga LV-1050
p 371 67212802
f 371 67223902
e . . . . . .lejnieks@btv.lv

Malta
Docomomo Malta
David Pace, chair
Jevon Vella, secretary
Kamra Tal-Periti
The Professional Centre
Sliema road
Gzira GZR 06
p 356 21 3142 65
e . . . . . .jevon.vella@gov.mt

Mexico
Docomomo Mexico
Louise Noelle, president
Sara Topelson, vice-president
Alejandro Aguilera, secretary
Lourdes Cruz, treasurer
Sierra Mazapil #135
Lomas de Chapultepec
México, D.F.C.P. 11000
p 5255 5596 5597
p 5255 5596 5013
f 5255 5596 4046
e . . . . . .stopelson@yahoo.com
htpp://servidor.esteticas.unam.mx:1608
0/Docomomo/

Morocco
Docomomo Morocco
Ahmed El Hariri, chair
Med Najih Derrak, vice-chair
Mahir Tamman, secretary general
9 Rue Aman
Casablanca 20 000
p 212 22 31 85 83
p 212 61 41 05 94
f 212 22 45 03 98
e . . . . . .docomomo.maroc@gmail.com
e . . . . . .ahmedelhariri@hotmail.com

The Netherlands
Stichting Docomomo Nederland
Janneke Bierman, chair
Charlotte van Emstede, secretary
Wido Quist, treasurer
TU Delft
Faculteit Bouwkunde
Berlageweg 1
Kabinet 2.05
2628 CR Delft
p 31 15 2788594
f 31 15 2781028
e . . . . . .info@docomomo.nl
w . . . . . .www.docomomo.nl
periodical: Nieuwsbrief Docomomo Nederland

New Zealand
Docomomo New Zealand
Alexandra Teague, chair
Julia Gatley, secretary & registers coordinator
Bill McKay, treasurer
School of Architecture and Planning
The University of Auckland
Private Bag 92019
Auckland 1142
p . . . . . .64 9 3737599 #84656
f 64 9 3737694
e . . . . . .julia.gatley@auckland.ac.nz
w . . . . . .www.docomomo.org.nz

Norway
Docomomo Norge
Kristin Arnesen, chair
Linda Veiby, treasurer
Even Smith-Wergeland, secretary
c/o Kristin Arnesen
Bølerskogen 2
N-0691 Oslo
p 47 45278118
e . . . . . .docomomo@docomomo.no
w . . . . . .www.docomomo.no

Panama
Docomomo Panama
Eduardo Tejeira Davis, coordinator
Calle Alberto Navarro
Edificio Asturias, 9B
El Cangrejo
Ciudad de Panamá
p 507 263 74 51
e . . . . . .etejeira@cwpanama.net

Peru
Docomomo Peru (provisional)
Perdo A. Belaúnde Martínez, coordinator
Calle Gabriel Chariarse
L18 Lima
e . . . . . .pafbelaunde@terra.com.pe

Poland
Docomomo Poland
Jadwiga Urbanik, coordinator
Muzeum Architektury
ul. Bernardyn´ska 5
50-156 Wroclaw
p 48 71 3433675
f 48 71 3446577
e . . . . . .docomomo@ma.wroc.pl
e . . . . . .jadwiga.urbanik@pwr.wroc.pl

Portugal: see Iberia

Puerto Rico
Docomomo Puerto Rico
Ivonne Maria Marcial, chair
Escuela de Arquitectura
Universidad Politécnica de Puerto Rico
PO Box 192017
San Juan 00919-2017
e . . . . . .presidente@docomomopr.org
w . . . . . .www.docomomopr.org

Russia
DOCOMOMO RUSSIA
Boris M. Kirikov, chair
Committee of the State Control
Re-use and Protection of the Historical and Cultural Monuments of St. Petersburg
Lomonosav sq.1
19011 St. Petersburg
p 7 812 3122072
f 7 812 1104245

DOCOMOMO UR-SIB
Lyudmilla I. Tokmeninova, chair
Ural Modern Movement Center
Museum of the History of Architecture and Industrial Technic of Ural
Gor'kogo 4-a
Ekaterinburg 620219
p 7 34 32 519735
f 7 34 32 519532
e . . . . . dtokmeninova@yandex.ru

Scotland
Docomomo Scottish National Group
Clive Fenton, coordinator
Adam Stanners, secretary
Ola Oduku, treasurer
19/2 Downfield Place
Edinburgh E11 2EJ
e . . . . . .clivefenton@yahoo.co.uk
adam.stanners@smithdesignassociates.co.uk
periodical: Docomomo SNG Report

Slovakia
Henrieta Moravcikova, chair
Institute of Construction and Architecture
Slovak Academy of Sciences
Dubravska 9
842 20 Bratislava
p 421 2 59309230
f 421 2 54773548
e . . . . . .moravcikova@savba.sk

Slovenia
Docomomo Slovenija
Natasa Košelj, coordinator
Salendrova 4
1000 Ljubljana
p 386 1 5181515/31 532185
f 386 1 4256112
e . . . . .docomomoslovenija@yahoo.com

Spain: see Iberia

Sweden
Swedish Docomomo working party
Claes Caldenby, coordinator
Arkitekturens teori och historia
Chalmers Tekniska Högskola
41296 Göteborg
p 46 31 7722332
f 46 31 7722461
e . . . . . .caldenby@arch.chalmers.se
e . . . . .vicki.wenander@restaurator.com
w . . . . . .arch.chalmers.se/docomomo

Switzerland
Docomomo Suisse
Bruno Reichlin, chair
Nicola Navone, secretary
Archivio del Moderno
via Lavizzari 2
6850 Mendrisio
p 41 58 666 55 00
e . . . . . .navone@arch.unisi.ch
www.unige.ch/ia/associations/DOCOMOMO

Turkey
Docomomo Turkey
Yıldız Salman, co-chair
Ebru Omay Polat, co-chair
Elvan Altan Ergut, Ankara representative
Nilüfer Baturayoglu Yöney, secretary
Istanbul Technical University
Faculty of Architecture
Takisla, Taksim
80191 Istanbul
p 90 212 2931300/2287
f 90 212 2514895
e . . . . . .docomomo_turkey@yahoo.com
w . . . . . .docomomo.org.tr

United Kingdom
Docomomo UK working party
Dennis Sharp, joint chair
James Dunnett, joint chair
Philip Boyle, coordinator
Clinton Greyn, secretary
Ken Hawkings, treasurer
77 Cowcross Street
London EC1M 6EJ
p 44 2074 907243
f 44 1223 311166
e . . . . . .Uk_docomomo@yahoo.co.uk
periodical: Docomomo UK Newsletter

United States of America
Docomomo US
Theodore H.M. Prudon, president
Jorge Otero-Pailos, vice-president
Hélène Lipstadt, secretary
Mark Lee, treasurer
PO Box 23097
New York, NY 10023
e . . . . . .info@docomomo-us.org
w . . . . . .www.docomomo-us.org
periodical: Docomomo US Bulletin

contribute to the next journal

Journal 42 is scheduled for March 2010.
Authors who would like to contribute to this issue are kindly invited to contact docomomo@miesbcn.com

Guideline to contributors

1/ A copy on disk or an e-mail version of the text.
The disk should be clearly labeled with the author(s) name(s), the title, and the names of the files containing the text and illustrations. The name and version of the word-processing software used to prepare the text should also be given.

2/ A hard copy on paper by postal mail.
The title and author's name should be clearly mentioned on each page of the manuscript and the name, title, postal address and e-mail address should also be given at the end of each contribution.

Form:
- All texts must be in English; if translated, the text in the original language must be enclosed as well.
- Manuscripts should be written with double spacing and liberal margins with all pages numbered in sequence.
- A short resume of the author(s), in connection to the contribution, must be included.
- Illustrations referred in the text should be mentioned abbreviated as follows: *(fig.1)*.
- Articles must include a short bibliography of about 5 to 10 reference books or articles.
- Footnotes should be numbered and should follow the following style:
Books: Nikolaus Pevsner, *Pioneers of Modern Design: From William Morris to Walter Gropius*, Harmondsworth, Penguin, 1960.
Articles: Julius Posener, "Aspects of the Pre-History of the Bauhaus", *From Schinkel to the Bauhaus*, London, Architectural Association, 1972, 43-48.

3/ Illustrations
We accept 3 to 6 illustrations for short contributions (about 600 words) and up to 10 illustrations for full-length articles (about 1500 words) It is essential that authors provide good-quality black-and-white illustrations either printed on paper or as digital data on disk or CD (size of images: 300 dpi for a A5 format).
For figure captions, the order of information is: designer, name of building or object, location, date, description, source.
If a building has been destroyed, include that information.

do_co_mo_mo

EDITORS
Maristella Casciato
Émilie d'Orgeix

ASSISTANT EDITOR
Isabelle Kite

COORDINATION AND PRODUCTION
Anne-Laure Guillet

FRENCH SUMMARIES
Éléna Dupont

GRAPHIC DESIGN
Agathe Desombre
Mathieu Chevalier

PRINTING
Expressions2/GP, Paris

Docomomo Journals are published twice a year by the Docomomo International secretariat.

For information, contact:

until December 31st, 2009
Docomomo International
Cité de l'Architecture et du Patrimoine
Palais de Chaillot
1, place du Trocadéro
F-75016 Paris
p.....33 (0)1 58 51 52 65
e.....docomomo@citechaillot.fr
w.....www.docomomo.com

from January 1st, 2010
Docomomo International
c/ Provença 318 pral 2
08037 Barcelona
Spain
p.....34 932151011
t.....34 934883685
e.....docomomo@miesbcn.com
w.....www.docomomo.com

ISSN: 1380-3204

Docomomo International is a non-profit organization dedicated to the **DO**cumentation and **CO**nservation of buildings, sites and neighborhoods of the **MO**dern **MO**vement.
It aims at:
- Bringing the significance of the architecture of the modern movement to the attention of the public, the public authorities, the professionals and the educational community.
- Identifying and promoting the surveying of the modern movement's works.
- Fostering and disseminating the development of appropriate techniques and methods of conservation.
- Opposing destruction and disfigurement of significant works.
- Gathering funds for documentation and conservation.
- Exploring and developing knowledge of the modern movement.

Docomomo International wishes to extend its field of actions to new territories, establish new partnerships with institutions, organizations and NGOs active in the area of modern architecture, develop and publish the international register, and enlarge the scope of its activities in the realm of research, documentation and education.

Docomomo *International est une organisation non gouvernementale dont la mission est la* ***DO****cumentation et la* ***CO****nservation de l'architecture, des sites et du patrimoine bâti du* ***MO****uvement* ***MO****derne.*
Ses objectifs sont de :
- Révéler l'importance du mouvement moderne à l'attention du public, des autorités, des professionnels et de la communauté scientifique.
- Identifier et promouvoir l'ensemble des œuvres du mouvement moderne.
- Aider au développement et à la dissémination des techniques et des méthodes de conservation.
- S'opposer à la destruction et à la défiguration des œuvres architecturales importantes.
- Collecter des fonds pour la documentation et la conservation.
- Explorer et développer la connaissance du mouvement moderne.

Docomomo International se propose également de développer ses activités vers de nouveaux territoires, d'établir de nouveaux partenariats avec des institutions, des organisations et des ONG actives dans le domaine de l'architecture moderne, de compléter et de publier l'inventaire international et d'élargir ses actions dans le cadre de la recherche, de la documentation et de l'éducation.