

international working party for
documentation and conservation
of buildings, sites and neighbourhoods of the
modern movement

Conference Proceedings

Fourth International Conference
September 18th – 20th, 1996
Bratislava – Sliač, Slovakia



Universality and Heterogeneity

DOCOMOMO International
DOCOMOMO Slovakia
Slovak Architects Society

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DOCOMOMO International:

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**Pre-Conference Day
Tuesday, September 17, 1996
Bratislava**

Meetings of ISC's



International Specialist Committee on Registers.
Left to right: Christopher Dean (UK), Marieke Kuipers (NL), Jorge Gazaneo (Argentina), David Witham (Scotland), France Vanlaethem (chair, Quebec), Maristella Casciato (Italy)



International Specialist Committee on Gardens, Landscape and Urbanism during a preparatory meeting.
Left to right: Suzanne Ewing (Scotland), Wanda Kononowicz (Poland), Rob Docter (NL), Marco Aurelio Gomes (chair, Brazil), Angela West Pedrão (Brazil), Paul Meurs (NL), Stella Maris Casal (Argentina)



Some members of the ISC on Technology
Left to right: Ola Wedebrunn (Denmark), Jos Tomlow (Germany), Wessel de Jonge (chair, NL)

Program of the Fourth International DOCOMOMO Conference

Pre-Conference Day

Bratislava – Slovak National Museum
Tuesday, September 17, 1996

Meetings of the ISC's	morning
Preparatory meeting on Registers Opening of the exhibition "Modern Movement in Slovakia"	afternoon

Schedule of the Conference Program

Bratislava – Slovak National Museum
Wednesday, September 18, 1996

Opening Session	morning
Main Theme: Universality and Heterogeneity	afternoon

Sliač Spa
Thursday, September 19, 1996

Session A: Architectural History Session B: Gardens and Landscape Session C: Education	morning
Session D: Register Session E: Urbanism	afternoon
Debate on the Main Theme: Universality and Heterogeneity Poster exhibition	evening

Sliač Spa
Friday, September 20, 1996

Session F: Preservation Session G: Technology "Kaleidoscope" Session Parallel meetings with individual ISC's	morning
DOCOMOMO Council Meeting Sightseeing in Banská Bystrica	afternoon
Closing Session and Tango Night	evening

Wednesday, September 18, 1996

Bratislava - Slovak National Museum

09³⁰ – 10¹⁵ **Official Opening Session and Welcome**
10¹⁵ – 10⁴⁵ Coffee break

Main Theme: Universality and Heterogeneity

Chair: Hubert-Jan Henket, The Netherlands

10⁴⁵ – 11³⁰ **Between the Barrier and the Sieve: Finding the Border in the Modern Movement**
Helmut Lethen, Germany
11³⁰ – 12¹⁵ **Modernism in Central Europe: Its Background, Correlation and Manifestations**
Dana Bořutová, Slovakia
12³⁰ – 14⁰⁰ Luncheon
14³⁰ – 15⁰⁰ **Towards a Reintegration of MoMo Architectural Cultures**
Fabio Grementieri, Argentina
15⁰⁰ – 15³⁰ **For an Historical Critique of the Idea of Unity in the Modern Movement**
Gérard Monnier, France
15³⁰ – 16⁰⁰ **Universality across Time: The Prehistory of Modernism**
Carla Yanni, USA
16³⁰ **Leaving from Bratislava by buses to Sliač –Spa**
16³⁰ **Meeting between the DOCOMOMO chairpeople with the Lord Mayor of the City of Bratislava – Peter Kresánek**
21⁰⁰ Dinner in Sliač

Thursday, September 19, 1996

Sliač-Spa

Two Parallel sessions

Cinema Hall

A. Architectural History

Chair: Elena Szolgayová, Slovakia

09⁰⁰ **The Lesson of Eastern Europe**
András Ferkai, Hungary
Architecture as Object and Habitability:
Karel Tiege, a Master Builder of Utopias?
Manuela Castagnara Codeluppi, Italy
Bohuslav Fuchs –
A Synthesiser of Regional Traditions
and International Trends
Jan Sedlák, Czech Republic
10³⁰ Coffee break
11⁰⁰ **Zlín Architecture:**
A Lesson of Universality
and Heterogeneity in Modern Movement
Peter Lizon, USA
German Influences in Slovak Architecture
1918 – 1945
Matúš Dulla,
Henrietta Hammer-Moravčíková, Slovakia
Modern Movement and National Identity:
The Cubic House and Its Critique in Early
Republican Turkey
Sibel Bozdoğan, USA
12³⁰ – 14⁰⁰ Luncheon

Public Hall

B. Gardens and Landscapes

Chair: Marco A.A. de Filgueiras Gomes, Brazil

09⁰⁰ **Preserving Modern Landscape Architecture**
in America
Charles Birnbaum, USA
Green Modernity – The Transcendence
of Burle Marx's work
Guilherme Mazza Dourado, Brazil
(Hugo Segawa – reading)
Landscape for living – Dutch Residential
Landscape Architecture
Jan Woudstra, UK
Landscape and Architecture
at La Foundation Maeght
Jan Birksted, UK
10³⁰ Coffee Break
C. Education
Chair: Mabel Scarone, Argentina
11⁰⁰ **Intentions and Policies for the ISC – E.**
Latin-American Experience
at the University of Buenos Aires
Mabel Scarone, Argentina
From Virtual Space to the Apple Tree:
Student Projects for the Future Bauhaus
Competition
Penyo Stolarov, Bulgaria

**Modern Architecture
as Educational Catalyst**
Allen Cunningham, UK
**Rehabilitation Technology
User Expectations and Aura**
Daniel Bernstein, France

Cinema Hall

D. Register

Chair: France Vanlaethem, Quebec– Canada

- 14⁰⁰ **Official Point of View and Personal Regard
on the DOCOMOMO International Selection**
France Vanlaethem, Quebec – Canada
**Is It In or Is It Out?:
Developing a DOCOMOMO Registry
in the North Eastern United States**
Andrew Wolfram, Theodore Prudon,
The DOCOMOMO North-eastern US WP,
USA
Vancouver's Recent Landmarks Program
Robert G. Lemon, MAIBC
and Marco D'Agostini, Canada
- 15⁴⁵ Coffee Break
- 16¹⁵ **The Modern Movement in Palm Springs,
California, USA**
Anthony A. Merchell, USA
**DPH and DOCOMOMO –
Register of Modern Movement Architecture
in the City of São Paulo – Brazil**
Mirthes I. S. Baffi, Clara Correia
d'Alambert, Walter Pires, Brazil
**Dutch MoMo – Monuments
Under Discussion**
Marieke Kuipers, The Netherlands
- 18⁰⁰ Dinner
- 20⁰⁰ Cinema Hall
Poster exhibition
**Debate on the Main Theme :
Universality and Heterogeneity**
Chair: Allen Cunningham, UK

Public Hall

E. Urbanism

Chair: Marco A.A. de Filgueiras Gomes, Brazil

- 14⁰⁰ **Urbanism of the Modern Movement
in Wroclaw (Breslau)**
Wanda Kononowicz, Poland
**Oswaldo Bratke: Two Urban Challenges
in the Amazon**
Hugo Segawa, Brazil
**Avant – garde and "Traditional" Elements
in 1960s Urbanism:**
The Case of Cumbernauld New Town
Miles Glendinning, Scotland
- 15⁴⁵ Coffee Break
- 16¹⁵ **Townplanning After the War in Its Mid-Life
Crisis: Current Developments
in Conservation in the Netherlands from
a Policy Point of View**
Rob Docter, The Netherlands
**The Influence of the Modern Movement
in Argentine Housing**
Alfredo Conti, Argentina

Friday, 20 September, 1996

Sliač – Spa

Two parallel sessions

Cinema Hall

F. Preservation

Chair: Marina Botta, Sweden

- 08³⁰ **Aspects of Preservation of the Early
Modern Movement in Denmark**
Helen G. Welling, Ola Wedeburn,
Denmark
**Preserving Modern Housing:
Two Contrasting Experiences in London**
Catherine F. A. Croft, UK
- 09⁴⁵ Coffee Break

Public Hall

G. Technology

Chair: Wessel de Jonge, The Netherlands

- 08³⁰ **DOCOMOMO's Technology Data-base;
Towards a World-wide Network**
Wessel de Jonge, The Netherlands
Concrete and California Modernism
Jeffrey M. Chusid, USA
**Folk Roots in MoMo's
Technical Innovations: A Case Study**
Jorge O. Gazaneo, Argentina
- 09⁴⁵ Coffee Break

"Kaleidoscope" Session
Chair: Andrew Wolfram, USA

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13 ⁰⁰ – 14 ³⁰	Luncheon		
15 ⁰⁰ – 18 ⁰⁰	Public Hall DOCOMOMO Council Meeting Chair – Hubert-Jan Henket	15 ⁰⁰ – 18 ⁰⁰	Parallel Sightseeing of the Historical and MoMo Architecture in the City of Banská Bystrica
Cinema Hall 18 ³⁰ – 18 ⁴⁵	Presentation of the Swedish WP Vth International DOCOMOMO Conference – Stockholm		
18 ⁴⁵ – 19 ⁰⁰	Closing Address Hubert-Jan Henket, chairman DOCOMOMO International		
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Introduction

The fourth biannual DOCOMOMO Conference, in Slovakia, has been an important occasion in many ways. As its title "Universality and Heterogeneity" suggests, the Modern Movement has known many different local and regional interpretations of one universal goal. Our stay in Central Europe, the Big Brother environment of Bratislava after the War, as well as the pleasant 1931–37 spa buildings of Sliač by the architect Rudolf Stockar made this point clear from various angles.

The first conference day in Bratislava was opened by the German philosopher Helmut Lethen with a big bang. His paper "Between the Barrier and the Sieve; Finding the Border of the Modern Movement" was a sobering and critical yet carefully designed mirror, reassessing the image of the Modern Movement and the conservation of its relics. As if that wasn't enough key note speakers Carla Yanni (US), Gérard Monnier (France) and Fabio Grementieri (Argentina) all questioned, in different and well presented ways, the validity of the various interpretations of the Modern Movement as provided by historiography so far.

Only strong cocktails and a bus ride to Sliač, two hundred kilometres east in the foothills of the Tatras, brought the almost two hundred delegates back to their apropos and to the location for the next two days of the Conference. Captivating presentations such as András Ferkai's kaleidoscopic overview of modern architecture in the former Austro-Hungarian territories, Daniel Bernstein's paper on his students analysis of Le Corbusier's Unité at Firminy, Jorge Gazaneo's ode to his old employer and master Amacio Williams, Allen Cunningham's ideas about making use of

the Modern Movement legacy as an educational catalyst and Jeffrey Chusid's exposé on concrete problems at Californian houses by Schindler and Frank Lloyd Wright, set a standard of quality which must become the norm for future DOCOMOMO Conferences. It gives great satisfaction to realise that the lectures presented during these three days are now available through the publication of these Conference Proceedings.

As usual, the Friday afternoon was devoted to the most peculiar and typical ritual of the DOCOMOMO network: the Council Meeting. Of the 23 countries and regions represented: Argentina, Brazil, Bulgaria, Denmark, Estonia, Finland, Germany, Greece, Hungary, Iberia, Israel, Italy, Latvia, the Netherlands, Norway, Poland, Québec, Scotland, Slovakia, Sweden, Switzerland, United Kingdom and the United States, all but one had voting power. In amazing spirit of unanimity many decisions were made, which can be briefly summarised as follows.

The Fifth and Sixth International DOCOMOMO Conferences

As agreed shortly after the 1994 Conference in Barcelona, Eva Rudberg, Jöran Lindvall, Marina Botta and other members of DOCOMOMO Sweden will organize the Fifth Conference in Stockholm for 16–18 September 1998. The theme will be "Visions and Realities – Social Aspects of Architecture and Urban Planning in the Modern Movement". For the Sixth Conference, in the year 2000, two working parties applied as candidates. The United States Proposed Hollywood with the title "Suspence" and Brazil put forward Brasilia with the title

"Brasília 2000, Modern Cities Facing the Future". Since neither proposals were sufficiently complete yet, the Council preferred to uphold its decision until more details have been submitted by both candidates by next February. A written vote in the Spring of 1997 will then result in a final decision.

Executive Committee

The International Secretariat will remain in Eindhoven, the Netherlands. The Council agreed on the re-election of Hubert-Jan Henket as chairman, Wessel de Jonge as secretary, both from the Netherlands, and Maristella Casciato from Italy as coordinator for the ISC's. Marina Botta from Sweden replaced Klára Kubičková from Slovakia as the coordinator for the upcoming conference. Klára Kubičková and her staff received a standing ovation for their excellent work in organizing the Fourth Conference.

Constitution matters

Since the founding conference the DOCOMOMO Constitution has been amended at several occasions. Besides, some items in the next needed clarification. The Council in unanimity expected all amendments to the Constitution and Appendices, according to the proposal by the Executive Committee of January 31, 1996. A brochure with the full text of the Constitution and Appendices has meanwhile been distributed to assist the working parties in their activities. The Executive Committee sincerely hopes that the text of the Constitution will now be final, and that time and energy of our membership can be spend on things that really matter instead of bureaucratic formalities – a position that was fully supported by the Council.

Membership

The Executive Committee informed the Council that the structure for membership and fees will remain as accepted in Barcelona in 1994 and as formulated in the DOCOMOMO Journal 12, since no alternative proposals had been produced. As regards fee percentages the following countries were added to the classification for 1996-98: Australia, Austria, New Zealand and Turkey all 100%, Dominican Republic, Indonesia, Mexico, Paraguay and Venezuela all 40%. Bulgaria and Cuba are both exempted. Hungary and the Czech Republic were reclassified as 40% (were 0%) while all other fee percentages remained unchanged for 1996-98.

International Specialist Committee

The chairman expressed his satisfaction about the many activities undertaken by the various ISC's, which resulted in a more equally shared responsibility within our network. Particularly the ISC/R has done a great deal of very good work in supporting and stimulating the working parties to extend their contribution to the DOCOMOMO Register.

ISC on Registers

As members of the ISC/R were re-elected France Vanlaethem (chair, Québec), David Witham (Scotland) and Maristella Casciato (Italy), while Marieke Kuipers (secretary, the Netherlands), Dennis Sharp (UK) and Jorge Gazaneo (*ex officio*, Argentina) were confirmed as new members. Gérard Monnier (France), who stepped down as chairman since the last conference, was warmly thanked for his great efforts to launch the ISC/R and to have made the

Register into the most significant project of DOCOMOMO so far. Xavier Costa (Iberia) resigned as a member and was thanked for his excellent contribution to the committee's work. The ISC/R again invited candidate members particularly from East and Central Europe. The Council decided such candidates can still be submitted until next February to be distributed for written vote. Regarding the International Selection of the Register, the ISC/R was mandated to revise and to update the Register guidelines in accordance with other ISC's; to complete collecting and editing the International Selection in collaboration with the working parties; and to publish the result under the name of DOCOMOMO International, in collaboration with the new ISC on Publications (ISC/P). For several working parties recommendations and deadlines were set in order to comply with this ambitious program.

The ISC/R discussed several recommendations to amend the criteria of the World Heritage Committee to accommodate Modern Movement objects in the World Heritage List. However, the ISC/R together with ICOMOS came to the conclusion that the existing criteria do comply for Modern Movement objects, provided the existing explanatory notes to the World Heritage Convention are extended. Two additions were proposed by the ISC/R.

The first one, to advance the understanding of the Modern Movement as a body of thoughts rather than a definition of style. The second, to introduce a hierarchy in the various aspects of authenticity being i) the idea, ii) the form, space and appearance, iii) the construction and details, and iv) the materials.

The Council accepted these proposals by the ISC/R and decided to mandate the

committee to draft a tentative list of MoMo buildings and sites based on the suggestions received from the working parties, and with the advice of a panel of invited experts, to be considered for inclusion in the World Heritage List. This work will be submitted for approval to the Executive Committee in time to report to ICOMOS in May 1997.

ISC on Education

Allen Cunningham (UK) has taken over the chair of the Education committee from Mabel Scarone (Argentina), who will remain a member of the ISC/E. Newly elected members are Daniel Bernstein (France), Jeffrey Chusid (USA), Arie Sivan (Israel), Štefan Šlachta (Slovakia) and Penyo Stolarov (Bulgaria), while Wenche Findal (Norway), Catherine Cooke (UK) and Karin Kirsch (Germany) were re-elected to continue their membership.

The ISC/E established a network of individuals dedicated to MoMo preservation training, to be coordinated from London with the purpose to exchange educational programmes, identify cores of academic expertise, research programmes and individual theses -in cooperation with the ISC/T- and to activate student interest in the Modern Movement and instil its spirit.

ISC on Technology

As members of the ISC/T have been re-elected Jadwiga Urbanik (Poland), Jos Tomlow (Germany), Hans-Jürgen Kiehl (Norway), Tony Walker (UK) and Wessel de Jonge (chair, the Netherlands), while Susan Macdonald (Australia), Juha Lemström (Finland), Tom Jester (USA) and Ola Wedebrunn (Denmark) were elected new members. Ana Maria Lacerda (Brazil) and François Goven

(France) both had to resign from the ISC/T due to other obligations.

The data base of MoMo technology experts will remain a prime activity of the committee. A first printed edition is available and it is the aim to make it accessible through the Internet soon so as to allow regular updates easily. The ISC/T invites other specialists to join in, since expertise is known to be much more wide spread than so far reflected by the data base.

Through an inquiry, the committee identified several knowledge gaps as regards MoMo preservation technology. With the ISC/E it will be investigated how these fields can be covered more extensively in training of preservation professionals. Other such themes will be explored through seminars and thematic publications in the near future. On the long term the ISC/T intends to publish a reference work on MoMo technology, that will include a critical history of modern building technology as well as chapters on practical preservation issues on the basis of the material produced through the seminars.

ISC on Urbanism, Gardens and Landscape

Marco Aurélio Gomes (Brazil) has taken over the chair from his fellow country woman Anna Beatriz Ayroza Galvão, who was thanked for her work in the preliminary phase of the committee. She will remain active as a member of the ISC/U, that has now officially been established by the Council. Other members are Miles Glendinning (Scotland), Wanda Kononowicz (Poland), Alfredo Conti (Argentina), Paul Meurs and Rob Docter (both Netherlands).

The proposal to establish the ISC/G+L as a sub-committee of the Urbanism group

was supported by the Council, since many items interrelate. Members of the International Sub-Committee on Gardens and Landscape are Jan Birksted (coordinator, UK), Franco Panzini (Italy), Lodewijk Baljon (the Netherlands), Guilherme Mazza Dourado (Brazil) and Jan Woudstra (UK). Franco Panzini was thanked for launching the ISC/G+L and for his work to establish the committee in its preliminary phase.

The ISC/U will further structure its network, will continue to work on collective publications with the working title "New Cities of the 20th Century", and collect cases in data base format.

ISC on Publications

An ISC on Publications has been newly established to coordinate all efforts concerning publicity and publications at an international level. As members have been appointed by the Council Hubert-Jan Henket (prov. chair, Executive Committee), Maristella Casciato (Executive Committee), Wessel de Jonge (Executive Committee, ISC/T), France Vanlaethem (ISC/R), Allen Cunningham (ISC/E), and Marco Aurélio Gomes (ISC/U). Dennis Sharp (UK) and Jorge Gazaneo (Argentina) were appointed expert members on publications the task of this new committee is to stimulate and coordinate publicity and publications, and to develop ideas and concepts for medium and long term goals of DOCOMOMO International. The ISC/P will meet in Autumn of 1996 to prepare a preliminary document which will be issued to the Working parties in the early Spring of 1997.

Miscellaneous

The Council decide to send a letter of concern to the Lord Mayor of Jerusalem

to stress the importance of preserving the physical and functional integrity of the Schocken Library in Jerusalem, designed by Eric Mendelsohn in 1934-36.

After a hectic but otherwise enjoyable and productive Council Meeting the delegates dressed up for the long awaited DOCOMOMO Tango Competition. For days, teams from many countries had secretly practised in quiet corners of Stockar's palace hotel with concealed tape recorders and, finally, there they were dressed extravagantly to put 1930ish Buenos Aires in the shade.

The couples from Italy, Slovakia, Finland, UK and Denmark shared first prize after being nominated for the Grand Finals by the expert Jury consisting of Elena Szolgayova (chair, Slovakia), Stella Maris Casal (Argentina) and Flaminio Lucchini (Italy).

All delegates agreed that an important key to the tremendous success of the conference had been the inspiring environment of Sliač Spa. We all stayed and conferred in one and the same complex, which contributed enormously to the atmosphere, the easy way to exchange professional experiences and the amount of new friends made. The Sliač feeling will be an important example and inspiration for future DOCOMOMO Conferences.

Two days of excursions through the Tatras, along MoMo highpoints such as the Vyšné Hágy Sanatorium and Piešťany's Glass Bridge, put an end to a memorable DOCOMOMO week in hospitable Slovakia.

Klára and your team, thank you very much!

Hubert-Jan Henket, Chairman

Conference and Proceedings

The decision to hold the Fourth International DOCOMOMO Conference, 1996 in Slovakia and to take as its theme Universality and Heterogeneity was taken in Barcelona.

For some time DOCOMOMO International had been trying to hold a conference in one of the countries of the former Eastern Bloc. Needless to say, we were delighted when our endeavours to take upon ourselves this not insubstantial role were rewarded and we were entrusted with hosting the Conference. Now is not the time to recall the background difficulties and certain weak points in its organisation.

At the meeting of the International Council we listened very carefully to all wishes and requirements expressed by our colleagues and it was our endeavour to meet them to the full, in areas such as:

- securing the professional and content side of the conference, with the aim of making the information obtained available to the wider professional community in the form of the Proceedings
- providing a space for various forms of juxtapositions to clarify the main theme. This consisted, in addition to the papers and discussions, of various displays, a poster exhibition and a key debate on the central theme
- providing a space for working meetings in various constellations

- focussing not just on the examples of architecture themselves, but also on other manifestations of the MoMo period – applied art, urbanism, the links between modern architecture in the real environment
- meeting members' desires to spend a few days in the atmosphere of DOCOMOMO, which is by now a society of friends working together.

The thematic units and selection of papers for the conference was made by the Scientific Committee, which convened in Bratislava in January 1995. This meeting was preceded by the registration of 122 announced abstracts and their assessment and selection by the chairs of the individual ISCs, and in some case by the chairs of the WP. The large number of papers required a very strict selection, and at the same time an attempt was made to ensure a correct proportional coverage of all vital areas, a task that required suitable impartiality. On the one hand, some interesting abstracts which could not be fitted into the time available for papers had to be reserved for inclusion as essays in the Proceedings; on the other hand, themes which were under-represented had to be supplemented by papers from guest speakers. Unfortunately, Wilfred Wang from Frankfurt am Main and Alexander Tzonis from Delft were unable to accept our invitation. But Professor Helmut Lethen from the University of Rostock was able to join us, and his talk and contribution to the discussion were one of the most substantial events of the Conference.

On the basis of assessment of the thematic breakdown of the abstracts announced two new sections were created which might appear promising for future conferences. These were the Preservation Section – interest in which will certainly increase – and the Kaleidoscope Section, which was made up of contributions which the Scientific Committee considered interesting but was unable to offer a full time slot and were presented in the form of posters.

The Fourth Conference also brought other innovations in content and organisation, most notably in being held at two venues. The plenary sessions of the first day were held in Bratislava, the Slovak capital, in the Slovak National Museum. This offered suitable premises for the official parts attended by guests and the media. The working part of the Conference was held 200 kilometres away at Sliač, in one of the most beautiful spa complexes from the MoMo period. The unique atmosphere of this town with its natural environment provided an inspiring setting for the session of the individual sections as well as for social events.

The Conference was expanded to include a pre-conference day on which the various International Specialist Committees met. Another opportunity for members of the ISCs to meet with participants was provided on the final day. The evening of the second day was given over to the plenary debate on the main theme of the Conference, allied to a poster exhi-

bition. The posters were installed by the relevant working groups.

Conference participants endeavoured to approach the them – Universality and Heterogeneity – from many different sides. It was a process of discovery whose results will echo in research in years to come. We hope that the Proceedings of the Fourth International DOCOMOMO Conference will constitute a fundamental contribution to the clarification of this issue and that will provide comprehensive documentation on the activities of the various sections both for participants at the Conference and the wider professional community.

The arrangement of the Proceedings only partially coincides with the Conference programme. In the Proceedings we have put together papers, posters and essays on the same issue in autonomous chapters. Unfortunately, some speakers failed – even after repeated postponement of the deadlines – to send us their papers, and these can only, therefore, be published in the same extent as they were in the Book of Abstracts. The illustrations are published in accord with the wishes of the author of the papers, except in a few case where a reduction was necessary due to poor quality or excessive quantity. The publishers accept no re-

sponsibility for matters of copyright, a subject brought to the attention of contributors.

The Proceedings are complemented by a brief round-up of events accompanying the Conference and the post-conference tour.

Bon voyage!

Klára Kubičková
Coordinator of the Fourth International
DOCOMOMO Conference

Acknowledgements

In organisational terms the Slovak DOCOMOMO Working Party is for the moment a part of the Slovak Architects Society. At the Group's request the Society took on the role of main host of the Fourth International DOCOMOMO Conference. Our thanks for its realisation are due, in the first place, to its Chairmen, Ivan Gürtler and Martin Kusý, as well as to the whole team of employees and outside associates involved in the preparations.

The DOCOMOMO International Secretariat in Eindhoven was constantly on hand to offer its help.

Other joint-hosts of the Conference were:

- The Slovak National Museum
- The Slovak Institute for Conservation of Monuments, both of which are under the Ministry of Culture, which itself assisted preparations in all manner of ways.

Help in the preparing and staging of the Conference was also provided by:

- Ivan Gašparovič,
Chairman of the Slovak National Council
- The Pro Slovakia State Fund for Culture
- The Ministry of Construction
- Landis & Gyr

The holding of the Conference in Sliač-Spa was made possible thanks to the willingness of its director, Viliam Soboňa and the selfless work of the building's intendant, Eva Behrlikova and of the entire team.

We thank the members of the Organization Committees and the Scientific Committee for their dedicated work.

Thanks, too, to all the named and unnamed whose work and willingness have helped to make this unique event happen.

Klára Kubičková
Coordinator
of the Fourth International
DOCOMOMO Conference

A few minutes to the beginning of the Conference



Klára Kubičková (Coordinator of the Conference),
Hubert-Jan Henket (chair, DOCOMOMO International)



Ľudmila Husovská (Slovak Institute for Conservation of Monuments),
Peter Maráky (Director of the Slovak National Museum)



Ivan Gürtler (Slovak Architects Society),
Dan Bernfeld (Council of Europe)



OPENING

Ladies and gentlemen,
dear DOCOMOMO friends,

Welcome all to the Fourth International DOCOMOMO Conference. It is a great pleasure to be here in Bratislava and in Sliač as from tomorrow. As the DOCOMOMO conference diehards will have noticed we have tried to return to the enjoyable tradition as started in the Bauhaus: that is to meet in a stimulating 1930s environment, in this case the sanatorium in Sliač designed by the architect Rudolf Stockar.

DOCOMOMO International is still very much alive. Particularly the Americas have been active in the last two years as I, for example, witnessed when visiting DOCOMOMO Argentina ten months ago. And what about Brazil with 29 members – after Poland, with 34 members, the biggest contributor to DOCOMOMO International and full of activities?

And then there are Cuba, Paraguay, Peru and the Dominican Republic where DOCOMOMO working parties are being formed. As you will remember last time we met, at our third conference in Barcelona, I mentioned that DOCOMOMO without a working party in the US would be a laugh. In March 1995, at the Preserving the Recent Past Conference in Chicago, three members of the E.C. and I met with several Americans interested in our organisation. Today three chapters of DOCOMO-

MO US are active, one in the east, one in the midwest and one on the West Coast. And then of course there is the old-timer, DOCOMOMO Quebec. All together, DOCOMOMO is not an organisation dominated by European participation any longer. The old and the new world have finally merged. It must be possible after our next conference in Stockholm in 1998 to meet in the year 2000 somewhere in the New World for our 6th International DOCOMOMO conference. Please, Americas: show us your hospitality.

But back from the future to the reality of today. I am pleased to mention that 33 national or regional working parties are active at the moment. Most of you have done a lot of work on your national registers and on the proposals for the international selection. When we will finally have all the material available – that is the documentation of approx. 900 buildings world wide – we will have the most comprehensive documentation of any architectural movement ever. This achievement is not only due to you as working parties, but in particular to the efforts of the International Specialist committee on Registers. They have been doing a very difficult and time-consuming, but very worthwhile, job for which I should like to thank them. To date our concentration has been on the registers. In future it might be interesting to consider other areas of documentation

for publication purposes as well, such as studies on various typologies such as housing, cinemas, factories, schools, sanatoria, etc. The other ISC's, education, technology, urbanising and landscaping are still showing signs of a postnatal depression which I hope will be cured by the end of this conference.

Our lifeline with you, apart from your many letters, telephone calls, faxes and lately E-mails (we handle approx. 5000 communications per year), is the DOCOMOMO Journal. I am sure you will agree with me that thanks to the editor Wessel de Jonge the quality of its contents increases every time. Thank you Wessel.

The main theme of the conference, "Universality and heterogeneity" is also the main idea of DOCOMOMO International, an organisation with an universal goal but with local implementations depending on locally different habits, conditions, politics, economics and social and cultural infrastructures; not a dualism, but on the contrary a necessary interdependence. But this interdependence between the universal and the local requires understanding from both sides. If we want to stay on the ball, alive, efficient and inspiring, we should be extremely careful not to drown in bureaucratic procedures and financial discussions. Therefore I hope that we will be able to finalise the debate on the constitution and contribution during this conference. In this respect I am very

pleased to mention that after some lengthy negotiation the Eindhoven University of Technology has agreed to assist the international secretariat with manpower and money for the next five years.

I also want to remind you that if universality and heterogeneity is a twin phenomenon, then we should remember our intention of solidarity between the economically poor and rich in our organisation, between the weak and the strong – an aspect which is sometimes forgotten.

As you remember, some years ago we established an agreement of cooperation between Icomos and DOCOMOMO concerning the World Heritage List. It is the goal of the Executive Committee and the VISC/R to establish during this conference guidelines for the World Heritage Committee concerning the selection of MoMo buildings and sites to be used by their member states. I should like to mention two items to you which I think it is important to develop in the next two years and about which I will talk to you again at the Council meeting on Friday.

The first item is that since we now have grown to a true world-wide organisation, it is time to concentrate more on the quality of what we do. Since other organisations are looking at us as an example, we should strive for the best in ourselves re-

garding presentations, papers, exhibitions etc. Some of us set really beautiful examples.

The second item is publicity. In the last seven years many worthwhile ideas have been developed within the DOCOMOMO network. We should, in the next two years, let others know about them as well. In addition, we should inform the public at large about the ideas of the Modern Movement, so that better understanding may result.

Ladies and gentlemen, we would not be here if there had it not been for the initiative of Klára Kubičková and her enormous will and energy, as well as the assistance of the Slovak Architects Society and the City of Bratislava. We are fully aware of the great effort required to organise a conference, and particularly under the given circumstances. Thank you very much for your kind hospitality. I hope we will all have a very stimulating and interesting conference with a lot of professional and intellectual debate, with a lot of fun and enjoyment and a lot of the well-known DOCOMOMO friendship. Knowing Klára Kubičková and her staff I am sure this conference will be a great success.

Thank you.

Dear friends!

Two years ago in Barcelona we were honoured by the opportunity to organize the next International DOCOMOMO Conference in Slovakia.

It is with great pleasure that I welcome you to Slovakia, and I hereby open the Fourth International DOCOMOMO Conference.

Slovakia is situated in an area where throughout history there has always been a border between great and powerful empires, as well as unwritten borders of culture and civilization, be it the Roman limes or the political events of the 20th Century. The only era in which seemed it that this state would change was that of the 1930s when the leftist intellectuals of the avant-garde – Hans Mayer, Le Corbusier and Karel Teige among many others – expected the rebirth of revolutionary Russia. It is beyond doubt that it was there that one of the strongest centers of the Modern Movement was to be found, and that it was believed that with the spirit of the Modern Movement our border status would be abolished. Everything has turned out differently and today we know that it is not possible to underestimate the regular historical continuity of the human and social consciousness, nor its darker sides. In the 1960s, when the taboo of functionalist architecture faded in our country, those ideas that we were forced to accept from the east, as a deformed variant, were worse than a bumerang. Instead of simplicity and creativeness – primitivism and vacuous duplication. The smallest flat not as a solution for the poor-

est levels, but as uniformity for everyone. Because of this reality, knowing the source of modern architecture in the world and at home has a great significance for us and is a part of understanding what is specific to our situation.

Bratislava had very cooperative contacts with the Bauhaus. An architect whose name is well known as a result of his book *Slovak Architecture and the Czech Avantgarde 1918–1938*, who studied in Bauhaus and knew personally all the legendary personalities lives to this day in Bratislava. His name is Ladislav Foltýn, and at the beginning of this month, on September 2nd, he celebrated his 90th birthday. To mark the occasion he was awarded the Emil Belluš prize.

His health does not allow him to be here with us today, but he has consented to me reading for you the speech he made on that occasion.

"I understand this honour as an appreciation of the great endeavour of one generation of architects, of one heroic generation to which Emil Belluš himself belonged. The generation which regenerated architecture in its creative and theoretical reflection, and which harnessed it fully to fulfil the needs of man in our century and using the means of our era.

The creative problems of recent human life and culture, exhort us to understand architecture from the beginning of the 20th Century to World War II not only as an object of history, but also as a problem of the present time.

I do not mean only the defence of the rational direction of the new architecture

of that period, though this is also important, for its interpretation is often erroneous and mischievous.

I would like to mention some of the attributes which have been a part of architecture since ancient times, and which were – particularly in the second half of the 19th Century – absolutely denied.

Architecture had reduced itself to the surface. It was far from what man needed in reality, and it was in irreconcilable conflict with the enlightened culture of justice and morality and the technical civilization. It was necessary to regenerate architecture. It was demanded by the shock of World War I. It was demanded by the social ethos, which resulted from the task assigned to architecture. It was not a mistake of history.

Firstly, it was important to give primary emphasis to content. This ensured that man became the real centre and that the creation was homocentric. So it was not not dualism, but the dialectic relation between content and form which would determine the wholeness, perfectness and purposefulness of architectural works. I mean a dialectic coherence where the form is not passive. With this the artistic value of architecture reaches a new, eternally young form and quality, linked with the vitality of the content and with the non-esthetic idea of good and morality.

Rationality based on ethics was the ideological base of this difficult process. Since the time of Aristotle it is an idea that has interested philosophers and artists. It would not be good if our era failed to pay sufficient attention to this task."

Dan Bernfeld

Council of Europe, Strasbourg, France

Ladies and gentlemen,

*Please allow me to convey the greetings and best wishes for the greatest possible success in your work from the General Secretary of the Council of Europe,
Mr. Daniel Tarschys.*

Before leaving Strasbourg I had the opportunity to speak of your work with Mr. Raymond Weber, Director of Education, Culture and Sport, and with Mr. Ferdinando Albanese, Director of Environment and Local Powers. They asked me in particular to express their pleasure in the manner in which DOCOMOMO has wholeheartedly adopted Recommendation no. 13 of the Committee of Ministers of Member States concerning the protection of the architectural heritage of the 20th century. Its publication in your excellent journal has contributed to its diffusion among those interested in the architectural heritage of the 20th century. I should like to express to you how pleased I was to be – at your congress in Dessau – the bearer of this Recommendation and to note the extent to which your organisation constitutes a sounding board for the work of the Council of Europe in a subject of the first order of importance for our common heritage values.

But what pleasure, too, to see you here reunited in this marvellous city of Bratislava thanks to your Slovak colleagues who wanted to show and to underline that their country will not only be a member of the Council of Europe, but also ready to work in an area as crucial as the conservation of the architectural heritage whose richness in the country can justly be a source of pride.

But I know that your time is precious and so I should like straight away to make two propositions concerning your future activity, propositions which I have had the

opportunity to talk of at length with the Head of the Council of Europe's Division of Cultural Heritage, Mr. Josè Maria Ballester.

1) First of all, a subject which I have discussed with some of you, particularly Professor Gérard Monnier, who heads the Institute of Art at the Sorbonne, and who is such a driving force in DOCOMOMO France. It concerns the "mobile" heritage that accompanies the architecture of our Century: furniture, of course, but also fabric, carpets, clothes, everyday objects or decorative items, and so on. This heritage is in danger because of its "portable" character, on the one hand, and its mercantile character on the other: it is the object, when not of theft, then of – often speculative – sale. I know the extreme difficulty of inventories – a task which you have taken upon yourselves from the very constitution of DOCOMOMO. And that is why my proposition is more in the nature of an "accompaniment" to your endeavours. What pleasure it is to enter the Musée Horta in Brussels and to be able to see and appreciate – thanks to the head conservator, Françoise Dirkens – some of these "mobile" testimonies of Art Nouveau! But I need hardly tell you of this facet of heritage. It would be good, whenever it is at all possible, if it could be conjoined to your endeavours.

2) The second proposition is of a quite different nature, and concerns the Council of Europe's "cultural itineraries" programme. You have no doubt from time to time appreciated some of these programmes, such as that – to take a subject close to your concerns – involving the buildings (and activities) of the European textile industry viewed as a cultural-industrial heritage of the turn of the century. But, as we find ourselves on the very bank of

the Danube, how could I not recall the itinerary entitled "The Danube – A European Cultural Itinerary", the documentation of which was published last year in Strasbourg. Personally, I am hoping to manage to set up such an itinerary of architectural heritage through Austria, Italy and Slovenia with the support of the international "Eurocultures" association which pursues its activities within the Saint-Luc School of Architecture in Brussels. It involves turn-of-the-century industrial buildings of an incontestable architectural value, embracing, for example, the old "ROG" factories in the centre of Ljubljana or the Stucky Mills on the Guidecca in Venice, now being converted into an international congress centre. What international resonance would be achieved for your activities by the creation of one or more cultural itineraries devoted to 20th-century architecture! What a platform for voicing the various dangers that oppress it! What reward for the cases your actions have succeeded in protecting by highlighting their value and sensitising the general public as well as local authorities to their role in the cultural life of our time!

Finally, the officials of the Council of Europe who are at your disposal and ready to assist your efforts: Mr. Michel Thomas-Penette, advisor for the cultural itineraries programme, Mr. Richard Hartley and Mr. Ulrich Bohner who run the General Secretariat of the Congress of European Local and Regional Powers (a permanent body of the Council of Europe which is in the process of forming a working group on the city), and are particularly seconded to activities such as those that you undertake.

Once again, I wish you complete success in your work and hope to see you again in two years' time.

Ladies and Gentlemen,

Please allow me to welcome you in the name of our Institute and to wish your conference the greatest success.

The Slovak Institute for Conservation of Monuments as a specialist organization for monument protection operates to protect, save, document and take advantage of the country's wealth of monuments. In addition one of our fundamental activities is the administration of the Central List of Cultural Monuments. This list is a selection of real estate and artefacts, containing – to date – 9,248 real estate cultural monuments (buildings and sites) from Slovakia's total monument heritage.

There are 117 recorded items (monu-

ments) from the period of functionalism and 72 belonging to modernism.

Six proposals for cultural-monument status are currently being examined.

Other files and sites proposed mainly by the DOCOMOMO group are in preparation. The allocation of cultural-monument status is quite a difficult process, particularly because of lack of clarity in questions of ownership and legal status. In most of the cases this uncertainty makes it impossible to proceed with proposals for allocation. This is because without valid property titles documents and records from the land register of real estates it is not possible to submit proposals to the Ministry of Culture for declaration and thus provide legal protection for significant architectural works of the modern era.

The process of preservation of the most recent era in the development of architecture in Slovakia began in the 1950s. It was then that our Institute compiled the first List of Monuments in Slovakia. This List records and describes the most significant works created in the period after World War I, many of them being entered on the former State List of Cultural Monuments. We consider the process of becoming more acquainted with the monuments (with the emphasis on the above-mentioned type of monuments) to be an unceasing activity during which – through cooperation – we also evaluate the contribution of Slovakia to forming the European architecture of the modern era.

I wish you a pleasant stay in Bratislava and on the excursion in Slovakia.

Dear Conference participants,
dear guests!

It gives me great pleasure to welcome you to Bratislava in the name of the Slovak Architects Society, which is one of the organizers of the Fourth International DOCOMOMO Conference. Following November 1989 and the subsequent social and political changes that took place in Czechoslovakia, architects in Slovakia established the Slovak Architects Society (SAS) as an independent social and professional organization. The mission of the Society as a public association lies in the sphere of culture and the arts – to further knowledge and understanding, to support architecture, and also to promote a climate for creative and, in the true sense, artistic work by architects responsive to the social context.

Since the first year of its existence the Society has gradually – thanks to the activity of its members and to links with other professional bodies – established its authority within society at large. By the very nature of its programme the Society looks not only inward, but also outward beyond the confines of Slovakia. One example of this is DOCOMOMO Slovakia itself, which was established by the Society on December 15, 1992.

Through the events it organises (such as the International Symposium on Regional Modernity in Moravany in 1992, and the exhibition devoted to Emil Belluš, Friedrich Weinwurm and the architecture of the 1920s and 1930s) the Society declares its allegiance not only to the cultural traditions, but also to the heritage of the Modern Movement. It may safely be claimed that the MoMo period between the Wars is the most successful period in the history of the new Slovak architecture.

These exhibitions, together with associated talks given by Prof. Štefan Šlachta in Karlsruhe, Munich and Zurich, and by myself in Neuchâtel and Bologna, have endeavoured to give the outside world a clearer picture of a country which, far from being extraneous to the Modern Movement, was its integral part. This was further confirmed by the exhibition Modern Movement in the Netherlands and Slovakia, installed initially (in June 1995) in Naarden and currently to be seen at the Slovak National Museum. The Society's publishing ventures, notably the books of Prof. Vladimír Karfík and Ladislav Foltyn, have also demonstrated the communality of this worldwide cultural movement.

The presence of our representatives at the first Conferences of DOCOMOMO in Eindhoven and Dessau provided a stimu-

lus to accede to and implement the Eindhoven declaration. When our delegation returned from the Third Conference in Barcelona with the remit to organise the next in Bratislava, we took this to be at once an appreciation of the work of our representatives, an expression of confidence and an honour.

For this reason the Conference was made one of the Society's highest priorities. Preparations began at the end of 1994. Every effort was made to use all means available to the Society to enable the Conference to be organised on an appropriate level in terms of both professional and social aspects. From the first visit, in January 1995, of the representatives and founders of DOCOMOMO International, Prof. Hubert-Jan Henket, chair and Wessel de Jonge, general secretary, we gradually, and with their help, succeeded in fulfilling this aim.

This is an event of great significance for the whole Slovak architectural community and, indeed, the cultural community as such. Bratislava has once again – almost thirty years after the Urbanistic Session during the Ninth UIA Conference in Prague in 1968 – hosted another major international conference of architects.

I should like here to thank everybody who in collaboration with the Slovak

Architects Society has contributed to the organisation and running of this event:

- firstly, Dr. Klára Kubičková, who as the chairwoman of DOCOMOMO Slovakia coordinated the whole preparation and is the soul of the event.,
- Prof. Štefan Šlachta, who not only as architect, but also as the president of SAS for the first two periods of office provided the foundations for this Conference,
- the Ministry of Culture of the Slovak Republic, which in collaboration with SAS supported this initiative from the beginning,
- Mr. Ivan Gašparovič, President of the Slovak National Council, the Ministry of Construction and Public Works of the Slovak Republic, and the Ministry of Environment who made possible the

work of the Preparation Committee and its realization,

- the Slovak Institute for the Conservation of Monuments and the Slovak National Museum which hosted the first days of the conference,
- the Pro Slovakia State Fund for Culture, many state and national institutes and Landys & Gyr – Slovakia who made possible of the conference in its two venues of Bratislava and Sliač, together with an excursion throughout Slovakia,
- the Pro Helvetia Cultural Foundation which, at the behest of colleague Markus Röthlisberger from Bern, made it possible for our students to take part in the Conference,
- the staff of SAS and other organisations who have put in much effort in the organisation of the Conference

and will continue to do so as it proceeds.

To all of you, and particularly to our guests from abroad, I wish you a fruitful and pleasant stay in Slovakia and trust that you will take with you not only favourable impressions of modern Slovak architecture and its traditions, but also of your – albeit brief – visit. You have some opportunity to know Slovakia, its culture and its past and present at least a little better. We should be glad if you return to us again that we may deepen our contacts to our mutual benefit, and not only in architecture. For us architects your active presence at this Conference will be, together with its results, a rich source of inspiration on how to contribute to the preservation of the cultural heritage of the Modern Movement in Slovakia.

Thank you.

Informal gatherings during the Conference

Welcome by the Lord Mayor of the City of Bratislava, Peter Kresánek
Primatial Palace, September 18, 1996



MAIN THEME



Helmut Lethen



Dana Bořutová
Gérard Monnier



Fabio Grementieri
Carla Yanni



Between the Barrier and the Sieve

Finding the Border in the Modern Movement

"edge, rim, fringe, margin, frame, outline, brink, limit, frontier, boundary, line of demarcation, wall, separator, divider, screen, division, fence, paling, embankment, enclosure, barricade, barrier, block, obstacle, stopper, trench, cut, ditch, dike, passage, course, gutter, channel, canal, groove, fortification, shelter, scarp, foxhole, dugout, bunker, breastwork, threshold, gateway, entrance, inlet, opening, curtain, iron curtain, verge, sieve, membrane, film, skin."

(From an American Thesaurus)

The formula for the border as "barrier and sieve" does not come from a theory of architecture. I found it in a book written by an American medical expert which recently appeared on the functions of the skin. After studying this doctor's reflections on skin as border, they continued to haunt my thoughts even as I began to think about the function of political borders and other spatial divisions in architecture. With this in mind I would like to begin with a speculative thought experiment using the skin as a model of the border, of national border, regional border as well as the constructed border surfaces in architecture.

1. The Skin

In his book *The Skin Ego / Le Moi-peau*, the French psychoanalyst Didier Anzieu considers the problem of the border between the familiar and the foreign (1). The place of Ego-formation takes place, according to Anzieu, at the borders of the body; the skin is a membrane where the Ego is at home. As a network of various sensory organs the skin registers touch, pain, sensations of warm and cold. Skin is an organ of perception. The border surface of the skin is a zone where the mental life meets with its biological and social reality. It is a protective cover for the individual and a place of exchange with others. It protects our inner world from outside disturbance, showing in the construction of its surface, color and scars, the results of external influences, which also reveal an inside. Based on various functions of the skin, the Skin Ego has, according to Anzieu, first and foremost the function of a **pocket** which contains in its interior the wealth of experience from nursing and the care of its mother. Its second function is as **border surface** which forms a barrier to the external world protecting from penetration as the expression of desire and aggression towards other people and objects. Its third function is as a primary tool of **communication**: the epidermis forms a sensory perceptive surface on which the traces of meaningful relations are engraved. Perhaps the fantastic multifunctionality of the skin stems from the fact that it originates from the same tissue as the brain.

The question remains: Can these three skin functions which cultivate security, protection and exchange be transferred to other border surfaces? The skin as model of a border leaves decisive questions unanswered: How does the individual armor against interventions in his or her "skin space"? How is personal space guaranteed? Who regulates the balance between proximity and distance in the intersubjective communication between people?

Skin cannot exist without armor. The human child cannot survive in its skin. From birth on, it needs a cultural context which envelops him in artificial border surfaces.

2. Architecture as Border Art

The period of time in which we locate the architecture of the Modern Movement is characterized by conflicting tendencies:

indeterminable migration movements ranging from migrant workers, tourism and rural exodus to troop movement, exile, foreign occupation and streams of refugees. The experience of bordercrossing is so elementary that Salman Rushdie places the "perspective of the migrant" (2) at the center of his focus. The experience of "uprootedness and separation", the experience of forced departure from a life space, the crossing of its border, seems to be the basic experience of this century. This observation is clearly linked to another one: this is a century in which the most rigid borders were drawn. From the trenches of World War I to the Atlantic Line of World War II; sharp lines of demarcation between zones of trust and zones of distrust, between friend and foe: between classes, nations and races.

There appears to be a fatal regularity: turbulence in the traditional social structure of the population, new ethnic mixes, the need for mobility in the work sphere, the dispersion of traditional power structures, the facilitation of traffic across the borders – these tendencies produced and met with vehement resistance. In the midst of these turbulent migrations individuals and segments of population seek to establish an identity with the slogan: "**I draw a borderline, therefore I am!**" *Distinguo, ergo sum.*

This, of course, seems to be a paradox inasmuch as the same actors who insist on such rigid borders are the ones who consistently violate the borders drawn by others, by mobilizing vast armies just to place a flag in the ground somewhere at a great distance from their point of departure. One could almost conclude:

The greater the desire to define one's own identity as a spatial zone of trust by drawing impermeable borders, the greater the probability that the neighboring borders will be violated in a colonizing movement (I draw a borderline everywhere, therefore I am).

Just how did the different architects of the Modern Movement behave in this force field in which the border is drawn or blurred. If we look at the manifests of the Modern Movement in the 1920s, we soon get the impression that they were on the side of the transgressors. They built for "nomadic" mobile inhabitants and for impassioned border-crossers. Architects of the Modern Movement were intent on

building **permeable** borders: transparent walls, mobile installations and trans-portable houses. They even designed buildings which did not resist the wear and tear of time, but rather incorporated this inevitability in their structure. During the 1920s in Berlin, houses conceptualized by the city planner Martin Wagner anticipated a fifty-year period of deterioration: after this period had passed, if the house was depreciated financially, it was to be torn down (3). The architects of the Modern Movement did not build fortresses or bunkers, in short: buildings with impermeable borders. This makes the conservation of their permeable structures so difficult.

The wonderful concept of permeable borders was, as we know, highly debated. Rather than raise the issue of spatial borders, I would like in what follows to emphasize a problem which played a central role in the battle of the anti-modernists against the new architecture: The relationship between architecture and the borders of the human constitution.

You are familiar with the argument of the opponents who were interested in establishing the polemic image of the "cold boxes" of Bauhaus: the transparency, brightness and coldness of the new constructions placed too much duress on the human constitution. The inhabitants of the houses were members of an organic community and not nomadic existences. They were shaped by the desire for warmth, rootedness and solid walls of protection which the architect had to account for. They should have a right to a lack of transparency and a right to darkness. Only in this way can humans ground themselves in the warmth of symbiotic units. We also know the cosmopolitan laughter of some modern architects over these "retrograde" views of "cave-dwellers".

The resistance clearly is not broken by the enlightened laughter. The problem lies in the differing concepts of "natural" human borders. During the 1920s the resistance to the new architecture was especially pronounced. The opponents of the Modern Movement referred to human "nature", and it is interesting to investigate what concept of man the altercating parties use as a point of departure during these years.

In the following I will concentrate on the theory of the philosophical anthropologist Helmuth Plessner. Although it is a fact hardly known to the international discussion, he published some essays during the mid-1920s in which the problem of the border was brilliantly linked to the question of the nature of man. Plessner coined the phrase: "**Man is artificial by nature!**" (4)

I would like to address this phrase because it can be found in some of the New Construction manifestos of Hannes Meyer, Bruno Taut and Martin Wagner at the end of the 1920s in Germany. Before doing so, I would like to look at the perspective on this problem offered by two cartoons

published in Germany in 1929 and 1930. This was a time in which the Modern Movement was under heavy attack. The irony of the cartoons gives an opportunity for reflection.

3. Two Nightmares

In October of 1929 this cartoon appeared with the title "A Palace Tour in the Year 1979." (5) Is this a remarkable prognosis of the fate of Modern Movement monuments in the postmodern era? In any case, an avantgarde monument appears here as an antique object. It appears to be one of the objects of cultural inheritance successfully preserved by DOCOMOMO and yet a nightmare. For it appears to be



A Palace Tour in 1979 „...and here is the famous old, Neue Sachlichkeit...!“, (October 1929)
Drawing by Karl Holz

an inaccessible toy and clearly separate from the life space of the viewer. A purism neither spoiled by the use of inhabitants nor tamed by local traditions. Functionalism without function becomes an ornament of ancient times.

The cartoon risks a look back at the present. A flock of visitors stands before a deserted architectural monument in which elements of Rietveld and Bauhaus are combined with designs of the Soviet constructivists (something like Lenin's speech rostrum) and with characteristics of the newly opened Wannsee beach resort in Berlin. While the building itself appears to belong to the class of dwellings in which one learns to freeze, the flock of viewers appears to have taken on a relaxed attitude demonstrated by their summery dress and casual demeanor. Dressed somewhat anachronistically for the fashion standards of 1929, these people occupy the future. And from there they regard what was built for the sensibilities and mentalities of the future as outdated and obsolete.

Soon the suspicion arises that what we have before us is a clairvoyant prognosis: a group of people dressed for the postmodern in eclectic fashion statements quoting costumes taken from light opera and slapstick films. All are casually gathered around an idol of modernity which has lost its appeal and is now only of antiquarian interest. The clothing of the viewers is no longer determined by their work.

Similarly, the building constructed with the idea in mind that "form follows function" has lost its place in the work sphere and now assumes a space in the museum as a sacred idol of modernity: a huge ornament!

"Things made of glass have no aura," Benjamin rejoiced (6). In hindsight all transparent surfaces appear opaque, all openings are closed, there are no permeable borders. While the casual clothing of the visitors shows a lot of skin they are standing before an airtight sculpture which does not breathe. What once was meant to be a shrine of mobility now stands before us as a drift block left behind by a previous ice age. We are standing before a monument whose inner logic has to remain unknown, because it is not transparent.

And the group of viewers looks back mockingly just as Tom Wolfe in fact did exactly fifty years later as he looked back at the "glass boxes" of the Silver Prince, Walter

Gropius: "pipe railings, ramps, hob-tread metal spiral stairways, sheets of industrial plate glass, banks of tungsten-halogen lamps, and white cylindrical shapes, it looks like an insecticide refinery"(7). The inhabitants, who, according to Wolfe, are "driven to the edge of sensory deprivation" by the transparency and cold of it all, attempt to "bury the obligatory white sofas under Thai-silk throw pillows of every rebellious, iridescent shade of magenta, pink and tropical green imaginable".

Tom Wolfe knew the fate of the rebellious inhabitants: "But the architect returned, as he always does, like the conscience of a Calvinist, and he lectured them and hectored them and threw the shimmering little sweet things out."

As we see in 1929, the little sweet things had gathered together to mock the document of Modern Movement as a cold

project which they already seem to have banished.

A suspicion arises. Is it really a clairvoyant prognosis, when fashions, which were *passé* by 1929 standards here express the wish that, in future, the dictates of modernity would again make room for more feudal, more impractical and less streamlined attitudes? Does not the truth of this prognosis lie simply in its trust in the repetition of the repressed?

It would seem more useful, not to begin with a prophecy, but rather to establish that the reflections upon modernity in 1929 turn upon the contradiction fixed in the drawing – a contradiction which is played out in the form of a prognosis over a temporal axis. In 1929, reflections upon the stereotype of the "cold-boxes" of the Modern Movement, the contradiction between the frigidity of Calvinism and the



The Inventor of Steel Furniture, April 1939, UllU

heart-warming shimmering sweet things is just as apparent as today. Then, as often today, the consideration of modernity is subjected to a scheme of polar oppositions. Of course, the cartoon overlooks the nuances, the shadings, the climate of partial shadow, partial sun. It overlooks that there were architects such as Ove Bang in Norway who said "If I'm not able to combine the beautiful and the practical I will go for the impractical" (as I learned in the poster exhibition in Sliač).

The cartoon does not succeed in communicating a central concern of some of the architects in the early phase of Bauhaus: the attempt to link elements of eccentricity with functional housing, characterized by transparent borders and surfaces. However, in no way does the cartoonist place himself on the side of the reactionary adversaries of Bauhaus architecture who are also not represented by the viewers. His drawing does reflect the contradictions which architects then were painfully aware of. He represents the contradiction in a nightmare of every representative of the Modern Movement: namely, the possibility that his buildings could become the object of antiquarian interest, which means that his borders are closed to the future; that his building could only fill the function of the cult object that is a celebration of memory storage.

The second cartoon appears in the year 1930 (8). It concentrates on the question of whether the representatives of the Modern Movement do not overtax the human condition with their inventions of moveable walls and "cold" furniture. It asks: Has the project of modernity overtaxed its own originators?

"The tubular steel chair," I read in Sigfried Giedion's book *"Mechanization Takes Command"*, "is as truly part of the heroic period of New Architecture as are the transparent shells of glass that replace brick support-walls" (9). In 1925, Marcel Breuer had produced at the Bauhaus the first tubular metal chair out of Mannesmann steel pipe, and in 1926 the large lecture hall of the Bauhaus Dessau was furnished with tubular chairs; in 1928, they were mass produced.

This drawing takes a look at the psychological costs of the "heroic period" of the Bauhaus. The architects of the Modern Movement demanded apartments "with-

out fetish" – and here stands a prime example of functionalism as a spatial fetish. Before it – reverently – one of the perpetrators of that heroic period, which probably fell sometime in his youth. Has he regressed? Sitting in an outdated comfortable chair packed between four pillows, his feet on a fifth as if he had to compensate for the cold of his own creation! The tubular metal chair, designed for a "nomadic existence", as once was said, or for "mobile people", as the new director of the Bauhaus, Hannes Meyer, put it. And in front of this nomadic apparatus, the perpetrator as a couch potato?

In the 1940s, the philosopher Günter Anders, who lived in exile in America, will see in this attitude an image of Promethian shame. Human beings are ashamed of themselves because they cannot succeed in attaining a synchronization of their own bodies with their own creations. What are we seeing? An agent of modernity is chilled here in viewing his own exhibit. If he wants to survive, then he will have to bring his own project in line with his practised existence. The borders of the spaces which the cartoon shows allow many perspectives. The curtains are missing, and as for plants, only cactuses and a low leafy shrub are allowed. The flowers have moved to the biggest pillow, which cushions the inventor against the cold. Since women were considered a source of warmth – according to male tradition – relief could be provided in this functional room by the framed picture of a woman next to the window. Is it a woman in fur, as in Kafka's *"Metamorphosis"*? The woman is behind glass and the inventor has turned his back toward her. In awe he seems to copy his heroic invention on paper. Is this the picture of a person who wants to remain a "Skin-Ego": since he does without his steel armor, does he need to be embedded in pillows in order not to be damaged by the coldness of the world?

Does the cartoon only point to the banal experience that private practice and professional design might be contradictory? Or does the criticism aim at an anthropological factual situation. Does it maintain that the project of modernism generally asks too much of human nature because it does not take seriously the desire for borders offered by caves that are not transparent?

I assume the friendly scepticism presented in this caricature is something which the architects of the Modern Movement always needed to take issue with. And I assume that the opponents could be sure that their polemics were supported by most contemporary philosophers who made statements about human nature.

It seems all the more important to point to the writings of an anthropologist who made statements about human nature, with which architects could have productively taken issue.

4. Plessner's Image of Man as Border Being

The battle over the Modern Movement probably took on different contours in the various countries. It can be shown in the German context that the arguments of the opponents always oriented themselves toward the image of man as a "communal" being, who makes a claim for his right to rootedness in a stable border horizon which went against the processes of modernization. The "community" seemed to them to be the natural way to construct larger units of population. This was sharply distinguished from the artificial construction of the "cold society". The anthropologist Helmuth Plessner intervened in this traditional field of conflict. Amidst the turbulences of the modern era in which the old orientations disappear one can no longer orient oneself toward the ideal of the community. Man needs to come to terms with the "coldness" of society. In order to enhance this, Plessner develops a kind behavioral habitus of coldness (10). This is supposed to clarify an elementary problem of cohabitation. It has to do with behavioral techniques "with which people come closer without hurting each other, or with which they move apart without offending each other by indifference." For him the first step consists in accepting the artificial nature of society as the only possible environment of behavior. Only then can the forced distance between individuals be gentrified as distance, the offensive indifference, coldness and coarseness of estranged living be made ineffective through forms of politeness, deferentiality and attentiveness and a closeness all too great be avoided. For according to Plessner, humans need one thing above all: distance. In order to maintain this he needs one virtue: he must keep

the balance between the regressive desire to fall back into symbiotic structures and the necessity to develop his autonomy in his public role. In a way Plessner tells us an old story about the balance between intimacy and distance once told by Arthur Schopenhauer: The temperature is below zero, a group of porcupines tries to get some warmth by coming closer and closer. If they come too near, they will hurt each other; intense proximity is self-destructive. If they stay too far away, they could freeze to death.

The community tries through its tyranny of intimacy to destroy the necessary border zone of personal space. Man can only realize his full potential in the strangeness and anonymity of society. "Distance", "politeness" and "diplomacy" – these are the magic words which are also to have validity in human relations. Nothing for Plessner is more ruinous than the claim to "authenticity" in every situation: "Sincerity is not the guiding rule for estranged persons (...). After a short collision the coldness of outerspace should settle between them" (11). The considerations published by the American sociologist Richard Sennett during the 1980s put forth that suffering in society does not, as is often claimed, stem from the "coldness of estrangement", but from the friction caused by too great a proximity, that is from the "tyranny of intimacy" (12). These are ideas which were already formulated by Plessner in 1924. He bases his argument on the idea that the artificiality of social structures shapes the "natural" space for human development. Only in the artificiality of the symbolic order which a culture erects around a person can the way to expression be found.

However these ideas and behavioral directives should be regarded with some reserve. How, one might object, can a person be a cultural being by nature? Plessner had originally studied zoology before turning later to philosophy. Only as an anthropologist did he ground the "nature" of man in the standards of knowledge which the human sciences then offered.

His argumentation does not surprise us anymore today. It runs: man is born into an eccentric position vis-à-vis his environment, especially when compared to the animals. Helpless and without defense against the

outside world, the pure Skin Ego needs the artificiality of culture from birth onward in order to survive. Man continuously develops object structures which protect him and in which he develops himself: the family, his craft, weapons, clothes, the architectural spaces and the symbolic order of images, languages, myths, religions, sciences and institutions. **"Artificiality in acting, thinking and dreaming is the inner means by which man stands in harmonious relation with himself as a natural being" (13).** The artificiality of modern society does not by any means contradict human elementary needs, as the apostles of community would have it. Moreover, it is the necessary condition for human beings, who are cultural beings by nature. From this evolve the conditions for the psyche, whose expressions are subjected to the artificiality of the symbolic order. **"The self must first be lost in the foreign medium (of language, writing, images, or music, HL), in order for it to be found again" (14).**

Plessner does not deny here that man has a longing for "community". Yet he requires that man learn to balance on the borderline between legitimate desires for community and the necessity to realize himself in civil society. Thus when he maintains that man is a border phenomenon, he means that man has always had to balance on the border between the necessities of life in the political sphere and intimate spaces. He must realize his freedom in the strangeness of the public, for this is the only one which offers the open horizon of his existence. He must make use of conventional rules of play, he needs the masks of social roles as an artificial means for regulating closeness and distance. The mask belongs to his gestural language of the public sphere.

When Plessner speaks of the German public sphere in the 1920s, then he is speaking very realistically of a public sphere grounded in violence. Although the concepts "balance", "play" and "tact" are important for him, he does not forget the realities of civil war. He is not guided by the notion of an anthropology for a peace-loving communal sphere, because he does not see this anywhere. He reckons with aggression and that is why anthropology is forced to construct man as an "accountable subject" ("Zurechnungssubjekt") linked to a vi-

olent world. With this he departs from the notion that man is a playful existence on the border between a peace-loving community and a crude public sphere. Both spheres are grounded in violence. This political anthropology is also shaped by Thomas Hobbes's view of man. Plessner assumes that the battle-ridden political sphere is not a foreign, coincidental, or external situation of being but rather one with the ability to draw boundaries between friend and foe, which belongs to the essence of man from the beginning. He must conquer an area located between the lifeworld which has already become familiar and the foreign one which is inimical. Since the sphere of familiarity is not to be understood as one that is by nature a protective border, it must be created artificially, that is, also by violent means.

So where do these thoughts lead us? Are we back again in the heart of modern darkness as we repossess the phrase: "I draw a borderline therefore I am"?

They have taken us to a place that is far away from the ideas of the Skin Ego. For a while it seemed as though Plessner wanted to suggest a playful definition of the border. If we think back to the last cartoon, to the arguments of the opponents of the Modern Movement, we can refer to this anthropologist, for whom the essence of man did not consist of remaining in the warmth generated by symbiotic communities, but in the risk of taking a step into the coldness of modern society. Plessner seemed to support us in arguments for mobility and border-crossing.

All the more surprising, then, that we find a critique of Bauhaus architecture in his essay "Limits of Community".

Since his critique primarily focuses on figures who were involved in a romantic escape from civilization, we are astounded to find him extend it to include "Neues Bauen". He sees in two impulses the same cult of the authentic, the ethic of tactlessness and other forms of radicalism, which make him distrust the ideology of racial or national community spirit. In opposition to both of these attitudes in the Weimar Republic, he advances the Nietzschean discovery that the soul requires the "cold air of diplomacy". His critique of the new architecture is found in the chapter on the

advantages of diplomatic behavior. The reader, whom the author has in the meantime convinced of the devastating effect of intimacy, is caught off guard by this attack on the "Bauhaus":

"Industrialism is the mode of exchange, Expressionism the art, social radicalism is the ethic of tactlessness. The cry for physical hygiene that is placated by a mere skylight (Oberlicht) and tiled walls corresponds excellently to an art which pounces without ceremony on what is essential, to a morale of merciless sincerity and hurting oneself and others on principle" (15).

Oddly enough, Plessner accuses Bauhaus architecture of violating the personal space which he considers typical for all radicalisms. Plessner will not tolerate the appearance of "naked honesty" or "eruptive genuineness" in a contemporary design, neither in Modern Movement interiors "with skylights and tiled walls", nor in expressionist settings. He polemicizes against all forms of unmediated directness: "Sincerity is not a guiding principle for two strangers (...). After colliding briefly, cosmic coldness must lie between them."

Yet why does Plessner direct criticism against an architectural movement that is considered the embodiment of the urban, and is famed for having completely done away with the culture of the overheated 19th-century room?

Plessner argues in favour of nuances: controlled gestures, broken light. Evidently, the functionalism of the Modern Movement does not meet his demands; he dislikes the transfer of the dictates of sincerity to materials. As long as personal hygiene and the exposure of the construction merely serve to intensify "genuineness", he expects little good to come from them. He expects the architect to assume the virtues of a diplomat: precise knowledge of the borders which may not be violated. Spaces large enough to enable elegant avoidance maneuvers. A play of masks as a convention of artificial means, with which human communication can function without too much frictional loss. A play of masks in the

hopes that the mask of politeness with the possibility of peacefulness will wear off on its aggressive wearers. What architecture was he thinking of here?

One wonders, of course, whether the anthropologist Plessner ever visited dwellings designed by Bruno Taut, Walter Gropius or Mendelsohn...

So we have to recognize that Plessner, like the Modern Movement, also stands in the force field between total mobilization and hunkering down. He cannot dissociate himself from this spatial reality. Plessner even goes so far as to say that a political active existence is impossible without armor. A pure "Skin Ego", fears Plessner, will only be slaughtered off. As playfully modern as the type may seem that he creates, he finds himself in the chronic state of alarm typical for a person who knows he is surrounded by enemies. He exchanges briefly with the legal historian Carl Schmitt about this idea. Their systems of thought seem to touch one another, since for Schmitt the essence of the political rested on the ability to draw sharp lines between spheres of trust and mistrust, between friend and foe. Registered as "Half Jewish" Plessner slipped into the sphere of the enemy in 1933. While Schmitt moved up to higher levels in Nazi legal positions, Plessner was forced into exile in Holland via Turkey.

Plessner raises the problem of borders anew in the 1930s from the "perspective of the migrant" as the perspective of the refugee.

Modernity is an "unfinished project" (Jürgen Habermas) as long as the border-problem is not solved. But first we must get rid of the fatal attitude "I draw a borderline, therefore I am." Then there could be a chance that the border becomes more a sieve than a barrier, or even better: a membrane.

NOTES

1 Didier Anzieu, *Le Moi-peau*. Paris 1985. Quoted after the German translation "Das Haut-Ich". Frankfurt am Main 1991

2 Salman Rushdie, *Heimatländer der Phantasie. Essays und Kritiken 1981-1991*. München 1992, p.456

3 Ludovica Scarpa, "Abschreibungsmythos Alexanderplatz". Boberg, Fichter, Gillen (editors): *Die Metropole. Industriekultur im 20. Jahrhundert*. München 1986, pp.126-134

4 Helmuth Plessner, *Grenzen der Gemeinschaft* (1924). H.Plessner, *Gesammelte Schriften vol.V*, Frankfurt am Main 1981, pp.7-135

5 Karl Holtz, "Eine Schloßführung im Jahre 1979". UHU. *Das Monatsmagazin* (October 1929). Reprinted by Christian Ferber (editor): *UHU. Das Magazin der 20er Jahre*. Frankfurt/Berlin 1979, p.261

6 Walter Benjamin, "Erfahrung und Armut". *Illuminationen*, Frankfurt am Main 1961, p. 316. See also H. Lethen, "Lob der Kälte. Ein Motiv der historischen Avantgarden". Kamper/van Reijen (editors): *Die unvollendete Vernunft*. Frankfurt am Main 1987, pp. 287-325.

7 Tom Wolfe, *From Bauhaus to Our House*. New York 1981

8 Cartoon by Walter Trier. *UHU. Das Magazin der 20er Jahre*, p. 34

9 Sigfried Giedion, *Mechanization Takes Command*. New York 1948, pp. 485-508

10 See also H.Lethen, *Verhaltenslehren der Kälte. Lebensversuche zwischen den Kriegen*. Frankfurt am Main 1994. Forthcoming H.Lethen, *Cool conduct. Literature and Anthropology before Hitler*. Berkeley (UC Press) 1997.

11 H.Plessner, *Grenzen der Gemeinschaft*, p. 107

12 Richard Sennett, *Verfall und Ende des öffentlichen Lebens. Die Tyrannei der Intimität*. Frankfurt am Main 1983

13 H.Plessner, *Grenzen der Gemeinschaft*, p. 106

14 Plessner, l.c.

15 Plessner, p. 110. See also H.Lethen, "Von der Kälte des Materials in den 20er Jahren". *Daidalos* (June 1995), pp. 50-60

Modernism in Central Europe Its Background, Correlations, Manifestations

Standing at the end of the century we can see clearly: modernism (functionalism) has undoubtedly become the style of the 20th century. Similarly to other styles in history, it penetrated all fields of creativity. And similarly to other styles in history, it also had its own anticipations, its own pre-history and history. If apologists of modernism in the 1920s tried to find common traits, linking elements, unity in the architecture of diverse regions, with the aim of arriving at the notion of the International Style, so today, distanced in time, we know that this idea of unity was too generalizing, that the notion (International Style) was an abstraction wishing to name a new phenomenon.

Following the phases of crystallization, self-definition and self-assertion, when, in the course of the 1930s, the style became domesticated in most European countries, subsequently the comprehension of its principles and slogans, so strict in the early phase, became more relaxed – instead of apologetics came a searching for possibilities of further development, and even the first attempts at revision when the architectural language limited by essential “material” aspects appeared to be wanting and sober.

Similarly to other styles in history, modernism evolved neither in a vacuum nor out of itself. The picture of linear evolution (once sketched by Giedion and

Pevsner) has long been transcended and we can realize the plurality of its sources and the complexity of correlations conditioning its birth, as well as the heterogeneity of environment which provided the background to the process of its assertion.

It seems to me that it is precisely the contact, confrontation, or dialogue of the new style with other (parallel, or complementary) tendencies that contributed fundamentally to its evolution. It supported the proving and strengthening of its basic features on the one hand, and the enrichment of its formal apparatus through variations and modifications on the other.

In discussing modernism in Central Europe, we are dealing, in fact, with a process of gradual penetration and dialogue which gave birth to a new architecture – we are concerned with an environment which coped with the unity (“simplicity”) of the early style through producing a variety of modifications.

Background

The character of architecture bears the traces of its geographical situatedness (given by the climate, relief, building materials, way of life of its inhabitants, etc.). The nature of Central European architecture was determined, on the one hand, by its “marginal” position in terms of Western Europe, and, on the other, by a close encountering of differing building traditions and constructive systems (Carpathian, Alpine and Mediterranean); their co-existence in space and time predestined its typical qualities: its typical stance was moderation, absence of radicalism, a striving for co-existence, conservatism positively oriented, i.e. towards preserving existing values and creating new ones in accordance and continuity with them.

As Václav Mencl has shown, this kind of stance is typical for architecture developed in connection with a living tradition of building craftsmanship characterized by the following factors -

- reserved and hesitant approach towards novelties,
- absorption of stimuli and elements in accordance with the essential purpose and sense of the intended work (as well as)
- tendency to eclectic combinations of heterogeneous elements, and finally, empirism.

The necessity of harmonizing heterogeneous impulses, differing cultures and influences, demanded a firm basis anchored in the level of elementary need and purpose which became the criteria of selection facing the new impulses and elements – hence a certain earthiness and pragmatism present in the architectural tradition. This resulted in specific transformations of accepted elements, creating specific style variations (e.g. the renaissance of the Spiš region) and style combinations (e.g. works by J. B. Fischer von Erlach).

This architectural tradition gave birth also to the reformatory and innovative attempts oriented to modernism which, at the turn of the century, found their expression in the work of Otto Wagner and his architectural school. This architectural tradition also formed the pre-conditions for the acceptance of modernism in the Central European region:

- the eclectic-instrumental approach represented the pre-condition for the analytic and operative functional thinking of modernism,
- inherent rationality (even pragmatism) was the pre-condition for the acceptance of the sober and abstract formal apparatus of modernism justified by the purpose.

Correlations

The character of modernism in Central European countries was considerably influenced by the architectural heritage of the former Donaumonarchie – its rich and multifaceted architectural culture provided the pre-conditions for the acceptance of modernism in its regions, and at the same time predetermined the specific qualities of Central European modernism’s manifestations.

In this connection we should point out the significance and immense influence of Otto Wagner’s architectural school. Developing theoretical principles of Gottfried Semper, he succeeded in his own work to synthesize rational, technical and functional thinking, corresponding with the impersonal (anti-individualistic) demands of the industrial epoch and the metropolis on the one hand, with the effective, ennobling gesture, tied together with the need of differentiation and individual expression of (permanent) cultural meaning on the other hand.

The novelty of his thought and specific architectural language formed a broad basis for the future development of architecture in the Central European countries. His message became the starting point and, to a certain degree, also the unifying factor even after the Danube Monarchy collapsed – in a situation where the spiritual climate of individual successor states strongly differed, and tendencies towards promoting cultural differentiation emerged, accompanied often by a conscious refusal of the heritage of the Monarchy.

(The rejectionist stance motivated on the one side, for instance, the orientation of Prague architects to Western European patterns (Paris), and on the other side, for instance, the persistence of traditional historicist and “national” trends in the architecture of Hungary.)

The question of persisting affinities in Central European architecture of the period between the Wars was investigated by A. Moravánszky in 1988 (*Die Erneuerung der Baukunst*), who wrote: “We may not forget that, despite the divergence of numerous trends, the basis for *avantgarde* as well as conservative and national tendencies can be found in the architecture of the prewar period.” Yet in the metropolises of the successor states, the former pupils of the *Wagnerschule* were active as architects and teachers. Moreover, a certain inertia of taste should not be forgotten. However

“Not only the roots, but also certain later influences were common for diverse trends: Werkbund, Bauhaus, CIAM, as well as numerous artistic and architectural periodicals and publications supported international cooperation of architects. From planning concepts that went beyond political borders (...) to the problem of the so-called minimal apartment, there existed many examples of common attempts and mutual exchange of information.”

Moravánszky even identified “certain aesthetic constants” of 20th-century Central European architecture. Let me point out the following ones:

- “surviving baroque gestures and the presence of the past raised to a myth”,
- “the work of art... represents no clearly intellectual matter; its effect resides in the great gesture affecting the whole surroundings;”

- the persisting importance of the “Sensory experience (playing the dominant role in the Viennese school of art history)”.

However, it is not only a question of architectural theoretical or creative factors – social programs aimed at the reform of dwellings and revitalization of urban quarters, including the great apartment blocks (*Wohnhof*), workers’ colonies as well as individual villas, could also find their common basis in the prewar architecture. Their architectural message found much resonance in the social context and ambitions of modernism in the interwar period.

Thus, the beginnings of modernism in Central Europe were determined, on the one hand, by the architectural heritage of the Danube Monarchy and, on the other, by increasingly differentiating characteristics of the successor countries.

Manifestations

Investigation and comparison of the beginnings of modernism and of the modalities of its acceptance and comprehension makes it possible to identify, at least in approximate terms, the specific (relating as well as differing) elements in the manifestations of modernism in the architecture of Central European countries (Austria, Czechoslovakia and Hungary).

The beginnings of modernism are associated with the 1920s (with certain differences in this span from country to country)

- The Wagnerian modern architecture of Vienna already anticipated not only the themes of modernism, but also those of its recent criticism – theoretical standpoints representing the positivistic rationalism of modernist thought were already formulated in the prewar period; in architectural activities of the 1920s we may trace diverse manifestations of form based on that “pragmatic compromise” which became characteristic of Viennese architecture (in the sense already mentioned above) and which, at the same time, determined a reserved attitude towards the “abstract dogmata” of the International movement; in later works made by former Wagnerian pupils we can still feel a great sense of the plastic quality of architecture so much respected by the *Wagnerschule*; the specific character

of the Viennese situation can be taken to be represented by Adolf Loos and his *Raumplan* or by Josef Frank and his theory of *Akzidentismus*; in the spirit of modernism, the Viennese architecture of those years, too, gained a strong social accent, due predominantly to the extensive communal building activities of so-called Red Vienna (headed by Mayor Lueger);

- in Budapest, as well, modernism caused at first only a moderate reaction, probably also due to an unfavorable social situation – loss of extensive areas fostered a romantic tendency to escape into the past which found architectural expression in the persistence of diverse historicizing forms; at the same time, the economically weak state could afford only limited building activities; at the end of the decade, the architectural scene was complemented by works of rationalist architecture announcing the functionalism of the 1930s – Bauhaus ideals were mediated by Farkas Molnár, who returned in 1925 (as Bauhausmeister) from Weimar and, along with József Fischer, was one of the most agile representatives of the New Architecture; from 1928 onwards the periodical *Tér és Forma* (edited by Virgil Bierbauer) provided considerable support to modernist attempts; in the course of the 1930s, the severity of functionalism relaxed and a number of impressive urban structures appeared (e.g. those designed by Lajos Kozma, or Hoffstädter, Domány and others); new compromise solutions also became apparent – style combinations marked by abstracting modernist transformation (e. g. discreet Classicism influenced by Italian architecture in some works by Gyula Rimanóczy);
- the comparatively early appearance of modernism in the Czech lands was supported by a milieu which was spiritually radicalized by a social atmosphere of optimism, the creation of a new democratic society and the opening of new perspectives – the architects here could develop the achievements of the former period, e. g. works by Jan Kotěra, Josef Gočár, and studies by J. Chochol,

which tended towards purism; besides a short-lived intermezzo of the "national style" based on architectural cubism and folklore inspirations, quite early in the 1920s purist and functionalist tendencies became manifest (1922 and 1924–25 respectively), represented by a number of names (such as Karel Honzík, Vít Obrtel, Evžen Linhart, Jaroslav Fragner, Jaromír Krejcar, J. E. Koula and others) and accompanied by vivid theoretical debates on the pages of periodicals (the most influential theorist of the so-called scientific functionalism being Karel Teige);

- the situation in Slovakia appeared rather different – in Bratislava, lacking the crystallized stances of the advanced Prague milieu, architectural impulses and trends of diverse provenience were meeting on the soil of local tradition: the span marked traditionally by Viennese and Budapest stimuli now became enriched by the contribution of young Czech architects (such as Klement Šilinger, Alois Balán and Jiří Grossmann and others) and impulses brought by architects who studied in Germany (e.g. Friedrich Weinwurm); plurality of ideas and tendencies caused a dynamization of the development, soon producing remarkable results – for example, the characteristic interpretations of cubism, or rondocubism at the beginning of the 1920s (e.g. by

K. Šilinger, Artur Szalatnai), early examples of Modernism around 1925 (by A. Balán and J. Grossmann) and in the 2nd half of the decade (by F. Weinwurm, K. Šilinger and others); around 1930, the first significant publications and periodicals dealing with architecture were launched; an architectural scene characterized at the beginning of the interwar period by heterogeneity came subsequently to be dominated by modernism accompanied by a few complementary, traditionally coloured trends.

Central European architecture of the 1930s made use of its earlier experiences – as if, after a short period of stiffness and a strict adherence to proclaimed dogmas, Functionalism opened itself towards external influences and accepted impulses of the environment, or of complementary trends connected more closely with the local building traditions. In the works of its best masters, modernism (functionalism) proved able to absorb and transform these elements in a way that enriched its content along with its formal apparatus. So it learned, to a certain degree, to become more flexible and to cope even with the heritage of this region. In the context of Central European tradition it fostered above all the plastic qualities of architectural volumes, characteristic architectural massing and special attention towards architectural detail.

Incorporating the regional style variants of functionalism into an overall framework we can achieve a complex picture of the Modern Movement in Europe.

A better understanding of the complex mutual relations between the integrity and universality of the initial idea (pattern) on the one side and the complexity and heterogeneity of its manifestations on the other can also help us to orient ourselves, to recognize the essence of numerous contemporary trends.

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Towards a Reintegration of MoMo Architectural Cultures

"...The architecture of today, for the first time since baroque, possesses a style. But a style made of such a broad web that offers each region or country the chance, if it is capable, of speaking their own language..."

Siegfried Giedion in "Space, Time, Architecture and City Planning", 1941

The current enlargement of the concept of modernity and the strong reappraisal of peripheria, "alterit" and individualism calls for a reconsideration of the apparent contradiction between the universality and heterogeneity of the Modern Movement. This issue appears to be crucial for DOCOMOMO in the search for a balanced approach to the identification, enhancement and treatment of MoMo heritage. Such a program should be based on a further analysis of the historic dimension and cultural significance of MoMo by means of a comprehensive and thorough study of all its components, their evolution and interplay. The conclusions will both help to overcome this apparent contradiction and to reinterpret different aspects of its history.

The question of universality and heterogeneity has been a critical issue in the history, criticism and conservation of other architectural movements such as roman, romanesque, gothic, renaissance, baroque, neoclassicism or *Beaux Arts*. The importance that the assessment of those two dimensions brought to the reappraisal of

many components of these movements within space and time are well known, as for example in the cases of provincial roman, late gothic, mannerism, Latin-American baroque, romantic classicism and the internationalization of the *Beaux Arts* system.

But of course, in these cases the stylistic components articulate the historiographical images that, composed from a considerably long perspective, are at the basis of the delineation of conservation policies.

In the case of MoMo, the historiography has to deal with a bigger and complex array of components and its perspective is evidently shorter or even null.

It is generally agreed that the universal character of MoMo comes from the appropriation of two main concepts of modernity, both reflections of the reality of a changing world: the programmatic that looks at it as an emancipating project and the transitory that regards it as a fascinating experience.

This universalization covers different attitudes between these two views: one that tries to build a new tradition based on a purposive historicist model in search of progress, and the other that celebrates the turmoil of continuous change. There are also other positions that are indecisive before modernity, its paradigms and challenges, but also part of the modern *Zeitgeist*. Recently rediscovered and controversially equated to mainstreams, these attitudes have gained an important place in historiography and criticism, as in the broad but unconcluded re-reading of modern German architecture that generated many polemics. The diffusion of this kind of historiographic experiments should produce a criss-crossing of results that could illuminate hidden aspects of MoMo architectural culture and help us to reconsider universal modernity standards, categories and hierarchies.

The universal character of MoMo was evidently stressed by the canonic historiography that, in the so called "big chronicles" from Adolf Behne to Kenneth Frampton (just to take two temporal poles of the most comprehensive sequential narrations) tried to integrate different architectural manifestations of modernity in time and space, as well as present MoMo as a powerful continuity able to process and assimilate critics and reactions.

Although the MoMo's unity was early and always challenged by internal rebel voices such as expressionism, organicism and neo-humanism, and by outside aggressions or temptations of tradition, revivalism and historicism, it seems that rationalism succeeded in controlling the scene for many decades.

The Movement's universal dimension was stressed by some fundamental ideological or theoretical founding components such as the ideals of progress, change and innovation as well as confidence in the ability of scientific and technical means to achieve transformations in society and environment. But other specific operational components also helped to strengthen the Movement's universality, among others: the design self-consciousness, the aprioristic difficulties in coping with the past and traditions, as well as the importance of function and program in the definition and materialization of the architectural project.

In the crucial years around 1930, on the eve of further new challenges from different fronts and after the controversial and combative rise as a "new architecture" in the previous decade, the universality of the Movement acquired strong legitimation as a "new tradition" by different means. It is important to specify that only when MoMo was consecrated as a "new tradition" was the emergence of a MoMo architectural culture possible. Although several catalysts can be identified, there were two that were truly universalizing and generally identified as decisive in the evolution and peripeteia of the Movement. These are none other than the foundation of the CIAMs and the launching of the "International Style", which will turn out to be the origin of the most controversial internationalizations of MoMo: a functional and technocratic urbanistic formula and an abstract architectural language inspired by the esthetics of machinism, vanguardist figuration and new building techniques.

But just after this consecration, the regression or dilution of the avantgardes, the realistic reawakening of traditions and academism through folklore and classicism, and the economic depression of the 1930s brought the Movement to a dialogue with regionalism and to recapturing heterogeneities.

This led to a different reading of MoMo universality that is well described in the

thought of two leading figures: Le Corbusier and Walter Gropius. The first wrote in his *Manière de penser l'Urbanisme* of 1946: "Without the last war architectural experimentation would have been universally accomplished. Specific features would have appeared or derived from climate or customs all across the unity of this renovated art, the expression of a society that has primordial elements in common. We live in the middle of the event so we hardly see it. We can't measure it. It is necessary to have traveled and compared a lot to be aware of the sense of the evolution, of its intensity, of its resources, of its immediate possibilities, of its unanimity. To disqualify the new architecture the adversaries have qualified it as international. Thus, they recognised that a unanimity has taken place among builders and users in all countries and all latitudes. This unanimity provoked the accusations and the pejorative consideration of such qualification...". And Gropius in his introduction to "The Scope of Total Architecture" of 1953 wrote: "There is no such thing as an 'International Style' unless you want to speak of certain universal technical achievements in our period which belong to the intellectual equipment of every civilised nation... Steel or concrete skeletons, ribbon windows, slabs cantilevered or wings hovering on stilts are but impersonal contemporary means – the raw stuff, so to speak – with which regionally different architectural manifestations can be created. The constructive achievements of the gothic – its vaults, arches, buttresses and pinnacles – similarly became a common international experience. Yet, what a great regional variety of architectural expression has resulted from it in the different countries!"

This "loss of unity" was strengthened after the Second World War for several reasons, many of them contradictory, for they involved increasing universalization of many basic components of MoMo, such as the progressive and accelerated autonomy of the building industry or the extended and "paradoxically" uncontrolled urban projects inspired by CIAM theories. Simultaneously, the resurgence of "repressed" internal trends such as the cases of expressionism and organicism as well as the reappraisal of avantgardisms and recycling of some original ideals – in op-

position to a certain academism that tinted the Movement at that time – made a strong contribution to the heterogeneization of the scene, a situation that became more complex within the last decades and the emergence of post-modernism.

In the assessment of the international and particular dimensions of the Modern Movement the correct consideration of the



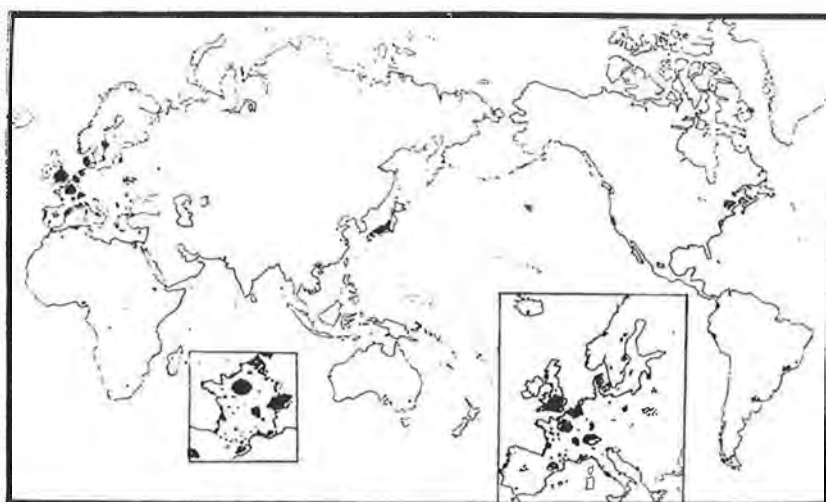
Front cover, September 1930 issue, *Das neue Frankfurt*, portrays the mobility of MoMo architects

Universal and local components that converged to shape and develop MoMo architectural culture is important. These components grew in number, complexity and inter-relation from the early development of its historiographical image in the 1920s. It is now evident that many of them need to be reconsidered and reinterpreted, while some others need to be rediscovered or better identified. This reconsideration also has to assess the stability, transitoriness or

recurrence of both universal and local components in time and space. As a result, a better understanding of the birth, evolution, diffusion and transformations of the Movement will emerge, its cultural significance will become clearer and the definition and instrumentation of conservation criteria for MoMo heritage will be correctly defined. And last but not least, these rereadings will help us to look at and learn from the complex, alive and changing MoMo architectural tradition in the masterful way that leading figures such as Le Corbusier, Mies van der Rohe and others have appropriated previous architectural traditions.

Among the components and connections inside MoMo architectural culture that are worth revising, some four can be clearly identified.

First, the relation between MoMo and tradition in the shaping of characteristic architectural cultures as a decisive question in the formation of its plurality. If inside the universal dimension of the Movement the dialectic relation with the classical tradition has been constantly refocused – yet not completely assessed – the interaction between modernity and local traditions is still fragmentary. In the emergence of a MoMo architectural culture the previous situation of the discipline has always had a strong influence. This is valid not only for what Henry Russell-Hitchcock has called the "New Pioneers" (later better known as "Proto-moderns"), but also for many other international and



Map of subscribers, 1922, *L'Esprit nouveau* 17

regional architectural trends – still diffusely identified – that played an important role in shaping MoMo local particularities.

Second, the influence or alliance of other disciplines in the rise and development of MoMo architectural cultures. The close links between avantgardes in the visual arts and modern architecture is a generalised pattern, especially decisive in the European context, but the interaction with other disciplines has often been dismissed. Politics and the emergence of national states were significant constituents of the rise of MoMo in Central European countries in the 1920s, or Asian nations in the 1950s. In the case of many Latin American countries, literature was an important ally of architecture in the battle for renovation and change, and this is also valid for various European countries.

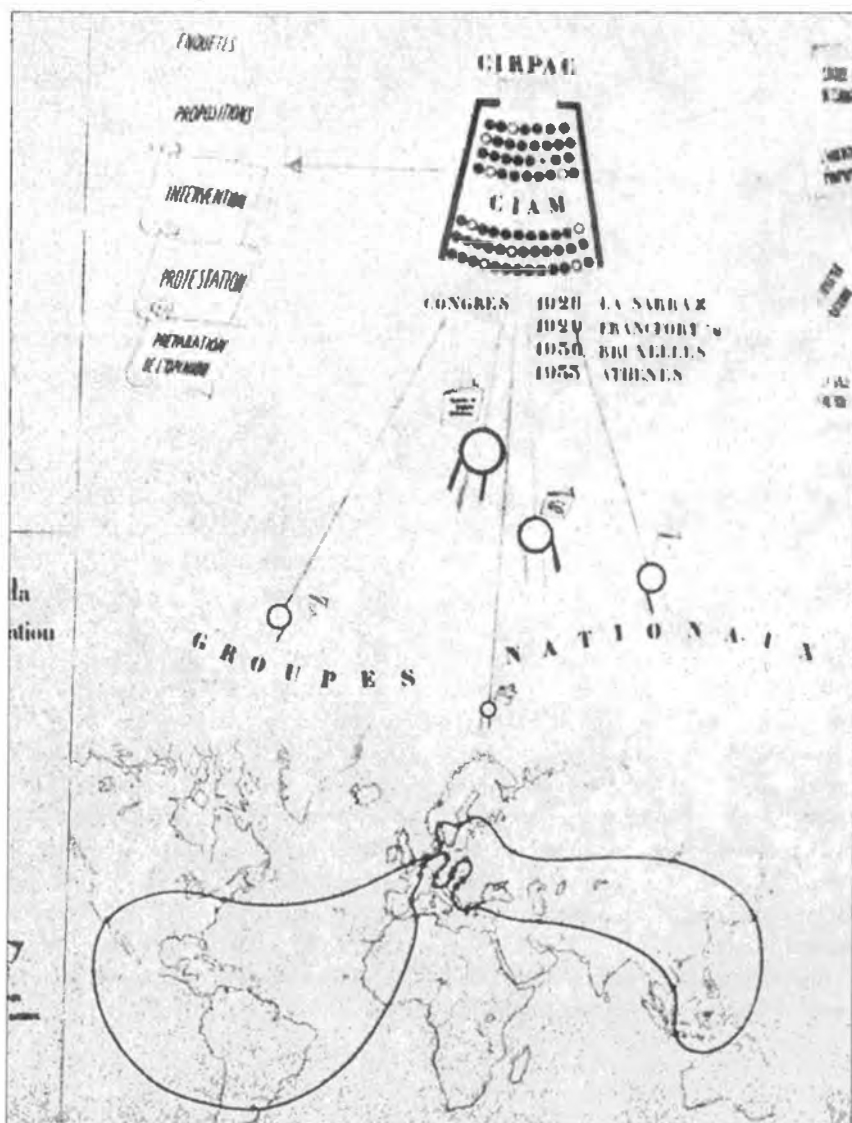
Third, the role of historiography in the definition, development and crisis of the Movement unity. The simultaneity in the formation of both the Movement and its historiographical image was responsible for the sense of homogeneity that covers the visions of the interwar period. These overviews, the model for later histories of MoMo, were both exclusive and inclusive for they select and present only some main constituents (trends and resources, figures and works) but also enlarge the Movement spread in time and space. The broadening of the temporal dimension, a basically European operation, was supported by the presentation of its distinguished architectural ancestry, powerfully cast by the writings of Giedion and Pevsner. The advertisement of the Movement's diffusion was stressed by the formalist consecration of the

"International Style" at the MoMo, in what appears to be the start of a media campaign to be always led by the American side.

Fourth, the Mechanisms of Diffusion of MoMo Architectural Culture. Some of the components which are less analyzed and appraised in the history of the Movement but which are decisive in the assessment of its universal dimension and explain its particularities are the complex and interweaving means of diffusion and exchange networks of MoMo architectural culture. The Movement International consecration was not only due to the generalised acceptance of new responses to modernity, but also because of extended and intensive mechanisms of diffusion that made it spread so powerfully and quickly. Even if these mechanisms were recognised by historiography and criticism it still seems necessary to review their significance in relation to the varied impact they had on different cultural and geographical contexts.

In the case of publications, their role has been partially studied and analysis has been mainly devoted to the most important books, those related to the canonic historiography, such as the "official" accounts, Le Corbusier's series, the *Bauhaus Bücher*, etc. Less attention has been paid to more eclectic series and reviews that circulated even more extensively than similar publications of today. A significant point here is the evaluation of the diverse impact of visual and written media and the influence of designs alone as well as of built work. Also important is the distinction between publications on architecture and those on urbanism, for the former transmitted a wide diversity of architectural images and principles, and the latter proposed homogeneous techniques and instruments and city planning. It seems difficult to homogenate the results of the "International Style" formalistic rules of 1932 and the functionalistic recipes of the "Athens Charter" of the following year.

Apart from publications there were what could be called "media events" such as congresses, exhibitions, visits and lectures that interacted differently in the various contexts where they took place or where their echoes reached. The constant, coherent and patient campaign of Le Corbusier



The CIAM's network and programmatic diagram, c. 1935

bore fruit in diverse ways in Russia, Brazil, USA or Central Europe. Similarly, the multiplicity of messages captured from other events such as the Weissenhof Siedlung of 1927 in Stuttgart or the League of Nations Headquarters competition of the same year varied significantly if seen from Europe or from South America.

Another well-known component is the dominant role of the so-called "founding fathers" or "pioneers" that through their theories, designs and buildings influenced not only their national scenes but also the international stage. Their importance has been always and exclusively confined to the role they played in the confirmation of the Modern Movement as a historiographic entity. Only very recently has their significance as communicants of the new architecture and users of the power of the available media begun to be considered. The same interest has arisen in relation to the impact or reception they had on different contexts, the feedback they received and their discovery of regionalisms and encouragement of particularities. But despite the intense performance of these protagonists, many other figures, often dismissed, were responsible for the diffusion of MoMo and the rise of its particularities. It seems appropriate to remember here that, for political and other reasons, most figures used to move across national and continental boundaries. Within this insight it is also important to consider the complex and dense network of solidarity and commitment to the development of the new architecture that brought together figures and groups.

Although professional education played an important role in the irradiation of the Movement and the definition of varied modern architectural cultures, it still remains an unexplored, wide field whose study could offer interesting and unexpected conclusions. The well-known contribution on teaching of most of the leading figures, such as Gropius, Le Corbusier and Mies van der Rohe has to be completed with the investigation of local educational resources and circumstances. The broad – and ap-

parently adverse – academic teaching system seems to have integrated – not without difficulties – many MoMo innovations in the field of design and planning. In this way, it has paradoxically supported the diffusion of the Movement and also encouraged the emergence of distinctive MoMo architectural cultures worldwide.

This reappraisal of MoMo diffusion would remain incomplete without consideration of the clients' role. Here the analysis has to cover more than the usual manda-

the emergence of its particularities – was the building industry and its international network of branches, representations and licenses already active well before the rise of the "new architecture". A great variety of firms (steel or concrete manufacturers and contractors, window companies, equipment suppliers, etc.) established international businesses and were responsible for original doses of rationality, standardization and efficacy that helped to shape a new architectural culture. Furthermore, in many cases these firms blazed the trail towards the adoption not only of new techniques, but also of new esthetics.

It seems quite clear that the complex universality of the Modern Movement still demands a better understanding of all its diverse components and their interweaving relations.

This poses the problem of the validity of universal conservation hierarchies, priorities and strategies. From the initial dilemma of capturing the essence of a given MoMo manifestation in both attitudes, the emancipating project or the sublimation of change, there derive two different yet contradictory conservation alternatives. One concludes that MoMo heritage needs to be restored to its pristine condition following the pre-eminence of the authenticity of the idea. The other maintains that MoMo works must be left as ruins based on the transitoriness at the origin of their conception. Both positions concentrate primarily on the problem of preserving central testimonies of the heroic period in their idealist, purist and transitory dimensions. They obviously withdraw the challenge of dealing with other MoMo manifestations, including realism, organicism, and durability. Between those extremes there are several difficult options offering the opportunity to deal tactfully with changing manifestations in time and space that belong to a movement complex in its universality and integrated in its heterogeneity. The validity of the option always relies on a dynamic and inquiring appraisal of the past, because undoubtedly and fortunately the history of the Modern Movement has not yet come to an end.



Front cover of the exhibition catalogue for "Modern Architecture: International Exhibition", 1932. Museum of Modern Art, New York.

tory role of these "enlightened" figures that commissioned actual architectural or urban works, or financed different kind of projects. Apart from inquiry into the causes for the preferences and sympathies towards modern architecture, it is also important to assess the subtle and evanescent connections among the international "clientèle" during the "heroic period". Strange as it may appear, there seems to have existed a sort of "hidden" transnational network of MoMo supporters that helped to both universalise the Movement and set the bases for the public acceptance of modern architectural cultures.

Another dismissed catalyst of MoMo universal diffusion – yet not responsible for

For a Historical Critique of the Concept of Unity as Applied to the Modern Movement

Many authors even today confuse the Modern Movement with its handful of heroes: Gropius, Mies Van der Rohe, Le Corbusier, and their contemporaries. Assumed to have disappeared with those heroes, the MoMo is, in this perspective, over and done with.

This is the point of view of the most ill-advised reader of school textbooks, one who accepts unquestioningly their presentation of painting as a series of brief movements running from impressionism to cubism and abstract art in accordance with a catastrophically anti-historical scheme of things which, let us note in passing, is incapable of situating such major artists as Matisse and Picasso.

A broader and more cogent approach to the Modern Movement requires us to understand both its double identity – for it is both complex and unified – and how it is comprised of several phases defined in time and space.

The Complexity and Unity of the MoMo

Since the 19th Century – since Viollet-le-Duc and Otto Wagner – the notion of “modern architecture” has been a common message. Everything changed when, in the 1920s, after opposing the *Neues Bauen* to architecture (in German-speaking countries) in a strategy of breaking with the

past, architect authors began circulating the notion of international architecture (Gropius, 1925; Lurçat, 1926; Hilberseimer, 1927). (1) And everything changed when these authors were heard and understood within a wider ensemble: what we had was the reception of clear messages in the midst of a confused situation. And from this came international architecture, an architecture assumed to be so unified as to be able to transcend design schools, local traditions, and borders. The La Sarraz meeting and the series of CIAMs, modeled on the postwar (World War I) conferences of international organizations, were taken as the very symbol of this extension in space – an extension made possible by a radically new dynamism, as Pevsner understood it when, in his 1936 study of the pioneers, he gave the movement its name. (2) Discovering unity and dynamism in the world space was indeed a way of responding to the need to give one name to architectural realizations situated in fifteen different countries. This is what Hitchcock and Johnson were doing in 1932 when they identified “international architecture” as a “style”.

As an immediate representation, we may accept this idea of unity in the space of a cultural and artistic moment – a unity plausible in terms of the unified reception of localized experiments. This is indeed what happened when, between 1924 and 1928, the new architecture and *neues Bauen* constructions gave rise to intense and rapid international exchanges and cosmopolitan publications. The Swiss review ABC, which brought together German, Swiss, and Soviet authors, is a telling example, as are the famous assemblies whose purpose was either to produce messages, such as the “Declaration of La Sarraz”, or to make collective demonstrations, such as the Weissenhof constructions in Stuttgart. This particular practice of modernity was characterized by movement – in both the literal sense of the circulation of ideas and persons, and in the sense that facts and representations, emission and reception came speedily into relation – this is an anthropological given of the 20th-century culture, characterized, as is generally recognized now, by dissemination and *metis* or the cross-breeding of ideas. In a larger histo-

rical framework, we may say that between approximately 1890 and 1930 such movement was the particular attribute of the avant-garde, that cosmopolitan practice of general artistic and cultural creation which is the antithesis of the traditional order of inherited and taught culture demanded by centers which consider themselves the depositories of tradition.

The substance of MoMo's momentary unity between 1920 and 1930 was that of an ensemble of dynamic information conveyed through a series of militant actions, actions by networks or on the occasion of international conferences or exhibitions. This information constituted and fixed the content of messages, ideas, images – a crystallization that gave rise to new forms. In writing, the essay appeared; architectural works were published simultaneously with commentary on them, and there was the journal article, which never (at least during this phase) took the form of a treatise. In the domain of images, there was the axonometric perspective and many new uses of photography – photographs of maquettes, photomontage. The real unity of MoMo consists in the articulation of these media, themselves new and unified, with the representation of concrete architectural realizations, in a circle that included both new experts and new partners (project managers and technicians). During this period the MoMo was projected/received by way of edifices that were themselves manifestos; images of these constructions carried their stimulating power far afield: we have only to think of the Barcelona pavilion or the Savoie villa. This movement, which was indeed cosmopolitan, extended through space without distinguishing whether that space was national or international, as in the contemporary diffusion of technology, with which it has numerous points in common. (I am thinking specifically of the rapid progress in aviation as an ensemble of techniques, practices and imagined results.)

But we know full well that underneath the unity of the media, which gave these manifesto-manifestations their power, there was striking diversity. The La Sarraz debates of the very first CIAM provide clear evidence of how widely doctrines diverged. Jacques Gubler offered an inter-

esting illustration of this absence of unity when he compared two housing developments, those of Freidorf and Pessac, realized respectively between 1921 and 1925 by two great names in the new architecture, Hannes Meyer and Le Corbusier. This comparison was nearly without impact, however, because the institutional differences between the two contexts were so marked, and the respective roles of the projects in the itineraries of the two architects so dissimilar: Freidorf had a galvanizing effect on Meyer, whereas Pessac was demobilizing and dissuasive for Le Corbusier. (3) We could multiply the examples. The period in which the new ideas were assimilated was different in Germany from what it was in Switzerland or France, as was the role played by the different technical procedures, this because industrial and commercial capacities varied from place to place. When Pessac was built, Le Corbusier had not mastered the American cement gun, whereas this procedure was used with great success in 1932 in the construction of the disarmament conference building in Geneva. It should be noted in passing that this edifice played an important role in the assimilation of the new techniques in Switzerland (all the more so in that the building's architect, Guyonnet, was a "classicist" who had rallied to modernity).

We may conclude that as a received ensemble of messages and images, MoMo was characterized by a surface unity, a semantic unity in space – an intense and momentary unity that lasted during a phase running from 1926 to 1932.

It is quite another thing, however, to affirm MoMo's unity through time. The hypothesis of such unity has been used as an argument in the service of polemical architecture criticism, namely after 1950, when in Europe and Latin America forms had evolved in such a way that evoking MoMo's unity was a way for critics to demand that "the style of the period" be respected and to protest against its lost unity (Nikolaus Pevsner), in a retrospective and nostalgic vision of the Modern Movement which is still with us, as may be seen for example in the affirmation – made in 1995 – that the Grande Arche of La Defense is "a last moment of modernist splendour". (4)

For his part, Kenneth Frampton has sought to accord value to this so-called "lost

unity" – unity lost over time – by attributing it to diffusion in space, underlining the importance of positive regional variations which he considers internal to architecture and thus critical in nature – this is the doctrine of "critical regionalisms". In general, recourse has been made all too often to the twofold postulate of the MoMo's unity in time and space, either for the purpose of exploring lost unity or valorizing initiatives taken on the periphery.

In both instances, the notion of lost unity is founded on an idealized version of the Modern Movement as constituting a limited style fixed in time and space. Tenants of both positions underestimate the weight of time in the transformation of architectural typology and neglect external factors, not the least of which is the matter of project management and execution. Both interpretations refuse to admit the complexity of the MoMo.

Broadly speaking, the rhetorical and polemical use of the concept of MoMo's unity has served those who seek to assign limits to it – in both time and space. In sum, it has served to affirm the death of the Modern Movement.

A historical critique is able to refute this stance on several points. The first thing to be clarified is that when, just after World War II, Pevsner evoked the "unity of the period", that unity was a myth. With its economic and political instability, with effects and durations that varied from country to country, the period between the Wars can only be considered highly complex. The local givens in Germany, the Netherlands, Italy, Switzerland, France, Central Europe, Scandinavia, and the USSR differed widely for a given moment in time, and the unity of these contexts is no more than a fiction. Indeed, it was on the basis of this incoherent mass of local and national facts that the major manifestations such as the Weissenhof at Stuttgart or the first La Sarraz CIAM had affirmed the existence of an imaginary unity that transcended all disorder. But this was at the expense of serious oversimplification. In their 1932 corpus of the "International Style", for example, Hitchcock and Johnson privileged the most unifying images of the style, those that show it as geometric and repetitive. Symptomatic of this are their

representations of the Van Nelle factory: they show only the northern elevation – the simplest. Hitchcock and Johnson left out buildings that were too strongly marked by the earliest modern ideas and forms (the Hilversum Town Hall) or show too much originality (there is no mention, for example, of the 1935 USSR pavilion in Paris). It is not absurd to think that later on they would have left aside Dr. Dalsace's house, the Pavillon des temps nouveaux, and the constructions of Leonidov and Prouve.

Finally, the phase between the Wars, which Pevsner presents as the significant reference point, does not have much in common with the phase that followed it, 1945 to 1973, during which phenomena of reconstruction interacted with those of growth and with the tensions provoked by the Cold War and the newly acquired independence of a number of Third world countries.

Historical Givens and the MoMo

How may we reconcile the question of phases with our schema of the MoMo? First of all, the historical approach enables us to see that the interaction of the long term with brief phases means that the MoMo must be identified as both the continuous transformation of architecture since classicism and an ensemble of precise, limited, and discontinuous phases. Our hypothesis is that the renewal of architectural issues and approaches is the outcome of the interaction between two categories of givens. In this type of analysis, which may also be applied to gothic, baroque, or neo-classical architecture, unity for a phase in architectural history is the effect of reaching a particular level or stage, a balance in the "intersection" of two categories of "givens". This produces results that are necessarily temporary because the two types are not equally stable. What are these two types of givens?

- The first are unstable, temporary, and independent of place. They are cultural facts, such as the abandoning of ornament in the 1920s, the new architectural figures, and experiments in construction. They move through space, are renewed in time, involving as they do imitation, rejoinder, references, and borrowings, which characterize the dominant practice of the

architectural project. This instability, which produces an effect of topicality, immediate relevance, fuels the dynamism of modernity, though this also means that it limits that modernity to an ephemeral reality, that of a style.

- The second type of given evolves slowly; it is both more stable and localized. These are givens tied to social demands and requirements, to the culture and competence of project managers and other building partners. In that part of Europe which aspires to being a "Welfare State", for example, and which therefore favors a political approach concerned with social redistribution, the given in question is the priority accorded to housing and collective facilities, to comfortable mass living conditions. Elsewhere, in the world of commercial competition, the given is the new role of glass and light in the euphoric treatment of spaces that are open to the public. These facts correspond to typological renewal.

In a way, these two categories of givens reflect the debate that opposed participants at the 1914 Werkbund Conference in Cologne, with on one side the partisans of typological evolution (Muthesius) and on the other, the individual creators (Van de Velde).

This suggests the necessity of resituating the Modern Movement within the general framework of the transformations of industrial society. The first signs of architecture's evolution were its various breaks with eclecticism between 1850 and 1910, and we know what forms they took: formal and neo-classical in Scandinavia, individual and plastic - Art Nouveau - in Belgium and throughout Northern Europe, technological in Germany, France, the United States. Such diversity and dispersal through space, such spreading out through time, does not justify our calling these earlier developments a movement.

Beginning with this ensemble of distinct manifestations, and making use of their results - think of how important a reference Frank Lloyd Wright became in Europe after 1910 - the MoMo's effects crystalized into programs, techniques, and forms which were, in fact, quite varied but which tend-

ed to be unified by the representations and reception of the time.

I propose to distinguish different phases within the MoMo, the first of which is, obviously enough, the period between the Wars.

- **1910 - 1940: After the cultural break with styles of the past and eclecticism, after the work of the pioneers, typological architectural creation intersected with the fact that commissioned architectural work in industrialized countries was becoming more and more linked to programs of social evolution. I am referring to "modern architects'" interpretations of the workplace, living space, and collective facilities in the fields of health, education, and recreation.**

- **1945 - 1973: This was the phase of Reconstruction and growth, a phase of worldwide expansion; it was also the phase during which former colonies acquired their independence. The assimilation of models from the preceding phase and the optimizing of social demand intersected with the renewal of construction techniques, producing new typological results, such as paved platforms and podiums and "proliferating" architecture (Habitat 67 in Montreal), and interpretations of new construction systems (spatial structures). Here or there we may note significant diversity in political objectives: in Brazil and in Algeria there was participation in growth, whereas Chandigarh involved a manifestation of the newly-won independence.**

- **Since the middle of the 1980s, and following the historicist crisis of the 1970s, we have been going through a third phase, both technological and environmental, a phase marked above all by the computer, industrial recomposition, and the global displacement of growth and cultural creation as reflected in the emergence of new poles such as Japan and Spain.**

It should be noted that these three phases are interrelated and that there is, therefore, a certain unity through time in all cases

where the metamorphosis of use value through technology creates irreversible effects. As R. Banham has shown, thermal comfort imposes everywhere the use of certain instruments (even in the restoration of older buildings); more generally, it imposes the typology of an equipped versus a decorated shelter, and this in turn orients new collective and public space, the history of which is typological and leads from the open-air square to the covered hall to the glassed-in atrium.

The MoMo may exhibit greater stability within the space of a given territory (Scandinavia), a category of objects (the timeless success of chairs designed by Jacobsen), or a category of building development (the mineral/vegetable relation in Brazil). When, on the contrary, we are confronted with a "crisis in the Modern Movement", this always involves the issue of place: the impact of "postmodernism", for example, has not been the same in England as in France, and it remains embryonic in Portugal and the Netherlands.

A System of Production/Reception

The MoMo, then, is the momentary capacity to produce - under the balanced control of an ensemble of partners - durable results in the interpretation of typological invention, itself dependent on local circumstances that evolve slowly. But the MoMo cannot be separated from the productions that its reception has generated, for these are what give it value and meaning. I am thinking for example of the housing slab, the very type of social housing - the European if not universal model - and of the skyscraper and tower, which stand as the American model. But the question is less one of how a given model is disseminated than of its interpretation. Consider for example the figures of skeletal-frame construction. They take several forms, which have a variety of sources. In the case of two contemporary factories, one built at Aalfeld, the other at Ivry near Paris, both participate in typological renewal; the difference is in the mastering of form and figure, in their interpretation as images. Here we see that the crucial criterion is the smooth shape produced by an envelop which is independent of the structure. The image of the factory at Ivry -

which is of American origin but has remained anonymous – is effaced by those of Gropius's factory, which has a personality and accedes to a genuine status within a network that establishes references.

We must, then, acknowledge the role of both creative initiatives and project commissions in the MoMo phases, the role of the instruments of reception as well as recognition. Among the principal variables constituting local or regional difference, it seems to me important to consider how far a given power system is implicated in the production of space and the organization of reception practices. At those times when the capitalist industrial system is flourishing, it is capable of creating the local conditions necessary for genuine architectural creation – and of celebrating that creation. But we should not fail to mention the republican political system, which has been deeply implicated in the building of successful public facilities in France, especially in the last fifteen years.

In opposition, then, to the confused image of unity, we have the obvious complexity of different facts in space and time, facts that have been produced and received and that make modern architecture – if not exactly an unfinished project, as we used to write in France fifteen years ago – at least a dynamic, socialized, and open ensemble.

What can we preserve of the concept of the Modern Movement's unity? That unity inheres in the consistency and coherence of production/reception by partners – conceivers, project managers, and technicians – who have the capacity to invent within a rational and socialized framework and to combine technical knowledge, an economy of means, and the power to renew forms and figures in space. The dynamic of MoMo consists not in the regular or repeated producing of a style but rather in the rationalist and clear-minded approach and work of modern builders, their part-

ners, and critics and historians – an approach and a way of proceeding that amount to a system.

(Translated from the French
by Amy Jacobs)

NOTES

- 1 Gropius, W. *Internationale Architektur* (Munich, 1925); Lurcat, A., *Architecture internationale* (Nancy, 1926); Hilberseimer, *Internationale Architektur* (Stuttgart, 1927).
- 2 Pevsner, N., *Pioneers of the Modern Movement* (London: Faber & Faber, 1936).
- 3 Gubler, J., *Nationalisme et internationalisme dans l'architecture moderne de la Suisse* (Lausanne: L'age d'homme, 1975), p. 93.
- 4 Dagen, P., and Hamon F., *Histoire de l'art, Epoque contemporaine* (Paris: Flammarion, 1995), p. 453

Universality Across Time: Henry-Russell Hitchcock and the Prehistory of Modernism

Henry-Russell Hitchcock (1903-1987) was perhaps the single most important American historian of modern architecture. (1) He introduced scholars and architects to avant-garde architecture in Europe and he focussed attention on modernism in the United States. The International Style exhibition, despite obvious manipulations, forever changed the way we talk about 20th-century architecture. His scholarship was so influential that he became more than a dispassionate observer of modernism; Hitchcock could not help but invent the modernism he studied. (2) My method for this paper is to examine a minor historical event, which will, I hope, illuminate an issue of greater historical importance: the false construction of an orthodox modernism and the latent regionalism of one its inventors, Henry-Russell Hitchcock.

The paper offers a detailed analysis of a little-known exhibition curated by Hitchcock in 1934, two years after the International Style. Titled *The Urban Vernacular of the Thirties, Forties, and Fifties: American Cities before the Civil War*, the exhibition was held at libraries and museums at small colleges in the US, and encouraged 1930s museum-goers to appreciate antebellum architecture as a model for contemporary city building. The formal qualities that Hitchcock admired in undecorated, simply-proportioned 19th-

century American buildings were similar to the qualities he extolled in the architecture of both H. H. Richardson and the International Style. The exhibition proves that Hitchcock discerned a prehistory for the International Style that was, ironically, distinctly American; Hitchcock extended the value of universality back to the nineteenth century, thus lending authority to modernism itself.

Didactic museum displays about architecture were relatively novel, as was the choice of subject matter – the rowhouses of Baltimore, the Georgian squares of New York, and the warehouses of Boston's harbor, mostly by unknown architects. (3) Hitchcock needed photographs to introduce these unfamiliar buildings to the public, and, as he later acknowledged, hiring the young photographer Berenice Abbott was a wise decision. In an unpublished introduction for Abbott's *Changing New York*, Hitchcock praised her work:

As Miss Abbott has taken architectural photographs for me, I can declare how perfectly her craft adapts itself to such conditions of work. Moreover I must also point out from this experience that in such commissions the photographer may well be so important a collaborator that, when the work is completed, the original initiator must retire as gracefully as may be, recognizing that the quality of the achievement is ultimately wholly due to the photographs. (4)

The American Cities exhibition was thus a collaboration, emerging from the contributions of two complementary talents. Abbott and Hitchcock's combined efforts exposed an uncelebrated aspect of the American visual heritage, and today their work reveals modernist concerns of the 1930s, both academic and artistic.

All parts of the exhibition worked toward proving Hitchcock's basic thesis that a simple vernacular style, stripped of columns, ornament, and archaeological quotations, flourished in American at the same time as the Greek Revival. And, while the two styles (the vernacular and the Greek) appeared to be antithetical, the real, underlying principles of the Greek Revival – discipline of proportions and simple expanses of the best available ma-

terials – were fundamental to both. Indeed, even ordinary urban building expressed the highest aesthetic achievements of the Greek Revival. (5)

The exhibition was divided into eight sections. Five of these represented individual cities, each treated as a unique entity. According to Hitchcock, Boston had fine commercial structures; New York's houses were sometimes better than Boston's, but its most important contribution was in James Bogardus's cast-iron facades. Philadelphia's best antebellum architecture emerged late, with the adoption of renaissance detailing in the 1850s, while Charleston's stucco houses suggested their tropical character. Baltimore was perhaps Hitchcock's favorite city; its red-brick, marble-trimmed houses were distinctive and local, and since they were built in many different neighborhoods, unified the city. A sampling of architect's drawings, reproduced from the collection of the Museum of Modern Art, showed the mathematical precision of the Greek Revival, even if the buildings appeared unsophisticated at first glance. In all of the exhibition labels, Hitchcock repeated a few key words – lightness, simplicity, and coherence – to commend these buildings.

Hitchcock and Abbott wanted to illustrate this alternative Greek Revival with buildings free from later renovation, and, with Hitchcock (a notoriously bad driver) at the wheel, the pair systematically surveyed the eastern seaboard to discover unspoiled urban America. Hitchcock planned the itinerary and compiled lists of buildings and locations, but Abbott made the photographic decisions once on site. (6) Choosing buildings in original condition was the first objective; beyond that, the project was propelled by Hitchcock's aesthetic judgments. Hitchcock was a passionate *connoisseur*. Trained at Harvard, he learned that visual scrutiny of original artifacts was the only way to develop the basic skills of art history. (7) Connoisseurship, now much in decline, focussed the scholar's attention on the uniqueness of a single master, whether in painting, sculpture, or, albeit less typically, architecture. But in the American Cities exhibition, Hitchcock was a *connoisseur* of whole cities, training his eye on buildings whose architects were often unknown. He compared one city to the next, and developed a primary criterion for evaluating

urban architecture: in his words, "the real architectural quality off a fine city lies in the general consistency and order of its vernacular buildings."

Certainly Hitchcock's knowledge of American architecture was impressive; he would probably have claimed that his visual assessments were based on objective formal qualities, and therefore provable. But formal qualities have a context of their own, and in order to understand why Hitchcock chose this subject matter, and why he admired the underlying principles of the Greek Revival in these modest structures, we must turn to two of his other contemporaneous academic interests – the International Style and Henry Hobson Richardson.

In 1932, the Museum of Modern Art installed one of the most influential exhibitions in its history: "Modern Architecture – International Exhibition". Encouraged by the museum's director, Alfred H. Barr, a friend of Hitchcock's from Harvard, he and Philip Johnson co-curated the exhibition and published: *The International Style: Architecture Since 1922*. (8) Although Johnson complained that Hitchcock "talks too loud and smacks his food and cleans his teeth with this napkin and loses his temper at officials", it was Hitchcock's knowledge which made the study possible, with Johnson acting almost as a research assistant. (9) The exhibition and book attempted to prove the existence of a truly modern style of architecture by arguing – through formal evidence alone – that common aesthetic tendencies in contemporary architecture transcended national boundaries. In Europe as in America, modernism emerged out of the chaotic, historicizing styles of the nineteenth century. As Barr summarized it, an emphasis on volume, compositional regularity, technical perfection, dependence on the intrinsic elegance of materials, and an avoidance of applied ornament were the hallmarks of the new style. (10) These aesthetic qualities were presented in *The International Style* without the socialist, egalitarian, or utopian ideological connotations which actually informed architectural design in Europe. (11) With social context thus absent, and formal criteria paramount, Hitchcock's expert eye glided across the decade, constructing a style in architectural history where none had been previously recognized.

Hitchcock and Johnson excluded visionary projects from the *International Style* book and exhibition, claiming that "architecture is always a set of actual monuments, not a vague corpus of theory." (12) Hitchcock and Johnson were proselytizers for the new style, and the inclusion of impractical projects would have weakened their effort to persuade audiences that contemporary architecture could be improved. In *American Cities* Hitchcock had much the same goal – to present existing models for modern designers. In one case he rejected one of Abbott's photographs that depicted an abandoned building in an impoverished section of Charleston. (13) Even though the shell of the building clearly communicated the stylistic tendencies of the modest Greek Revival, Hitchcock may have believed that burned-out rowhouses suggested unsuccessful rather than exemplary urban design. In the same vein, Johnson, in a 1930 memorandum to the president of the Board of Trustees of the Museum of Modern Art, lobbied for funds for the "Modern Architecture – International Exhibition" by claiming its relevance to contemporary architecture: "American architecture finds itself in a chaos of conflicting and very often unintelligent building. An introduction to a rational mode of building is sorely needed. The stimulation and direction which an exhibition of this type can give to contemporary architectural thought is incalculable." (14) Johnson's justification for the *International Style* – a justification presumably shared by Hitchcock – could just as readily have applied to *American Cities*.

Hitchcock's labels for *American Cities* led the viewer to an appreciation of the unassuming pre-Civil War buildings for their "discipline of proportion", "precise disposition of parts", and their "extreme rationalist discipline" – phrases which echoed his characterizations of the finest modern architecture. There are of course some characteristics of the *International Style* which could not possibly appear in pre-Civil War architecture, like the use of modern sheathing materials to achieve an effect of volume rather than mass. Furthermore, since *American Cities* contained no building plans, Hitchcock avoided the issue of open planning. But many of the buildings Hitchcock asked Abbott to photograph adhered to the architectural

ideals he and Johnson had presented two years earlier at MoMo. The houses on Washington Square show aligned cornices, regular proportions, and the repetitive pattern of window openings which resemble the ordered balance of the *International Style*. Similarly, one of the drawings Hitchcock selected, the "elevation of a block of stores...about 1835-40, by A. J. Davis", had a particularly modernist aspect. Entirely without ornament, the elegance of the building's composition is derived from its subtle proportions, enhanced by the technical precision of Davis's drawing. Most strikingly, the columns on the ground floor are separated by intense black voids and seem to lift the building off the ground, like *pilotis*.

In several cases, Abbott's photographs enhanced Hitchcock's modernist leanings. In 70-73 Beacon Street, Abbott placed her camera behind a tree which partly obliterated one of the four buildings. The building was not entirely obscured however; we can see that it was taller than its neighbors, because a fourth story was added in a later renovation. By blocking out the odd house, Abbott created a sense of order and regularity in the streetscape's profile. In Lafayette Street Colonnade Row, Abbott photographed the building frontally, an unusual angle for a building like this since it de-emphasized the building's main attraction: the lively rhythm of light and shadow in the receding row of columns. Abbott's view flattened the facade. In this way, Abbott's photographs worked to strengthen the theme of the *American Cities* exhibition, just as the carefully-chosen photographs in the *International Style* book (mostly borrowed from the architects themselves) helped to present the fiction of a unified style.

American Cities was closely related to another of Hitchcock's exhibitions for the Museum of Modern Art. In 1934 Hitchcock conducted the research for a display of the architecture of Henry Hobson Richardson (1838-1886), which was mounted in New York in 1936. In that year Hitchcock published *The Architecture of H. H. Richardson* and his *Times* (Museum of Modern Art, 1936), which established Richardson as the key American in 19th-century architectural history. Hitchcock may have been initially attracted to Richardson's buildings because many, but not all, were located in

New England, Hitchcock's home. The subtext of the 1936 monograph was that Richardson's architecture was strongly American in character, because it boasted a utility and simplicity that anticipated the best modern architecture. Other architectural historians in the 1930s also regarded Richardson as a progenitor of the Modern Movement, and especially as the precursor to Frank Lloyd Wright. One contemporary review of Hitchcock's book claimed that "...from Richardson to Sullivan and from thence to Frank Lloyd Wright is but an easy step." (15) The architectural historian James O'Gorman made the historiographical case most succinctly: "Hitchcock wrote in a period seeking roots for the Modern Movement, which he himself had chronicled and championed." (16)

A few of the buildings chosen for *American Cities* resemble H. H. Richardson's works, although they antedated it by several decades. The Union Wharf Warehouse showed characteristically Richardsonian rock-faced stone, dark color, and bold outlines. Hitchcock was interested in commercial vernacular not only for its own merits, but also as a native source for Richardson's famous massive commercial structure, the Marshall Field Wholesale Store in Chicago. As early as 1892, the architectural historian Montgomery Schuyler reported that in conversation with Richardson the architect had admired the "character in the plain and solid warehouses" of Boston, therefore the influence was direct. Hitchcock, then, took a cue from Richardson when he celebrated utilitarian American structures; since, presumably, H. H. Richardson did not see the Modern Movement coming, it was Hitchcock who extended Richardson's logic backwards, creating a prehistory for modernism. (17)

When Hitchcock and Abbott made their driving tour in the Summer of 1933 to take photographs for *American Cities*, they were simultaneously documenting the work of Richardson. Some of Abbott's photographs from this trip were used in the 1936 Richardson exhibition at the Museum of Modern Art, and many were published in Hitchcock's book. (18) For much of this Century, Richardson's architecture has been mediated not only by Hitchcock's modernist scholarship, but also by Abbott's austere photographs. Abbott's composition in her photograph

of Richardson's Cheney Block in Hartford, Connecticut (1875 – 1876) closely resembles those in her photographs for *American Cities*, in which she provided the context of the street setting, but otherwise cropped out neighboring buildings. Some aspects of her style are conventions of architectural photography: that buildings should be daylit, viewed at eye level, and with little evidence of human presence. (19) The allegedly objective and detached view acts as an affirmation of Hitchcock's object-oriented approach to art history. (20)

Rigid connoisseurship, not to mention American partisanship, emerges in the *American Cities* exhibition, especially in the label on mill housing. As in the astonishingly non-committal description of socialist Siedlungen in *The International Style*, in the case of mill housing, Hitchcock turned a blind eye toward social issues, claiming: "The new urban civilization was not yet stratified and one type of design on the whole served with suitable adaptations for all contemporary problems." (21)

Hitchcock saw these urban vernacular buildings, as objects among other objects, in a timeline directed toward the present day. This timeline was not a simple progression, but was marked by successes and failures – Victorian architecture being the most spectacular failure. The language Hitchcock used in his label for New York City revealed one such interpretation of rise and decline: "along Fifth Avenue the breakdown of the standardized vernacular and the substitution of various High Renaissance, gothic, and even romanesque manners began earlier and proceeded more drastically". Hitchcock also described the pre-Civil War buildings as "simpler, lighter, and altogether superior to the pompous classical order of the next decade..." (22), suggesting that the city building of the early 19th Century decayed into shoddy historicism after the war. According to Hitchcock, late 19th-century American architecture represented some of the most deplorable architecture in history, with exceptions made for H. H. Richardson and the skyscraper: "... during the seventies when [Richardson] built his first great buildings, some of his contemporaries and rivals, whose names and careers are quite as knowable as his own, built what may with little exaggeration be

called the worst monuments of architecture ever produced." (23) Hitchcock saw the refined elegance of early 20th-century architecture as, in part, a reaction to an architecture of applied ornament and historic pretension. Thus buildings of the 1830s, 1840s, and 1850s were conceptually linked to the monuments of the Modern Movement – across an abyss of decorative excess and architectural indulgence.

Even so, Hitchcock never referred to the urban vernacular buildings as "architecture", thus the exhibition should not be seen as an attempt to elevate these row-houses and warehouses to the level of High Art, or to equate these buildings with the masterpieces of the International Style. Instead, Hitchcock was promoting a fundamental way of viewing cityscapes – as comprised of a fabric of consistent, modestly-constructed buildings spanning the urban environment. The import of Hitchcock's method must be emphasized, because before architects could build new cities, they had to learn to see existing ones. Hitchcock used the *American Cities* exhibition as an appeal to contemporary designers who, he hoped, would gain a sense of responsibility and learn from 19th-century models:

In the 1830s, 1840s, and 1850s architects built churches and single houses in every type of design that whim could ask; but fortunately in ordinary city building they preserved a sense of responsibility which must be regained if our cities are ever again to achieve architectural amenity.

The 1930s witnessed the utopian socialist urban planning projects of Europe and American planned communities like Greenbelt, Maryland as well as the final vestiges of the City Beautiful Movement. Hitchcock was never known as an urban theorist, and, indeed, his art historical background tended to focus attention on individual objects. But Hitchcock's plea for a consistent urban fabric was urgent, and he was, significantly, searching for an American solution to a vast urban problem. Not to be confused with the explicit regionalism and romanticism of another partisan American, Lewis Mumford, Hitchcock always described his urban vernacular as "rationalist". And since Hitchcock and Mumford were already

feuding about Frank Lloyd Wright's place in architectural history, it is doubtful that Hitchcock would admit any influence from Mumford. (24) Only the subject matter broadly-defined – the future of American cities – links the two thinkers.

The exhibition, *The Urban Vernacular of the Thirties, Forties, and Fifties: American Cities before the Civil War* was in some ways remarkably innovative – perhaps because it appeared in small venues, he could afford to experiment. At the time, vernacular architecture was not widely studied and the term “vernacular” was then, as today, more often used for rural than urban architecture. (25) It was a clever scholarly twist to look at densely-populated cities for what might be thought of as a folk tradition. Hitchcock may have been influenced by the widespread modernist enthusiasm for American folk art which emerged in artistic circles in the 1930s. Elizabeth McCausland, an art critic who knew Abbott and corresponded with Hitchcock during this period, compared certain photographers (including Abbott) to folk artists and primitives, because they “worked directly and without artistic frill.” (26) In a layering of artistic sensibilities, Hitchcock admired the unflinching visual style of Abbott's photographs, especially when they depicted vernacular buildings; in turn, he appreciated vernacular architecture for its own stripped-down simplicity.

This preference for minimalism is of course a mainstay of modernist aesthetics. The putative strength of this position is that architecture, reduced to its essence, is truthful and therefore universal. By finding modernism in the streets of 19th Century America, Hitchcock proved the existence of universality not only in place, but also in time. Simple, modest buildings were not invented in the twentieth century, he proposed, but rather had always been a part of architectural practice. An enlightened modernist critic in search of “good” architecture need not circle the globe looking at recent, avant-garde buildings. Universality of expression was present in the architecture of the past as well as in the abstractions of the present.

There are several ironic interpretations of the *American Cities* exhibition: first, that the Harvard-trained connoisseur should

choose to train his eye on vernacular buildings and whole cities; second, that the proponent of the International Style (which was after all based on the machine aesthetic and was therefore supposed to express the zeitgeist) should find similar formal qualities in pre-Machine Age architecture. Third, Hitchcock emerges here as an unwitting regionalist – a New Englander whose interest in Richardson led him to seek out even earlier buildings, which then seemed to offer American roots for modernism. But the nicest irony for today's audiences (and which must have Hitchcock spinning in his grave) is that the wrongly-named New Urbanists use the same strategy as the *American Cities* exhibition: they look back longingly at America's 19th-century cities to legitimize their own agenda for the future.

Any re-assessment of the Modern Movement in architecture requires re-assessment of its history. One of the themes suggested by the title of this conference, “Universality and Heterogeneity: the Modern Movement and its Regional Reflections”, is that there is no singular, orthodox modernism. Hitchcock and Johnson are, in large part, responsible for constructing this imaginary modernism, and they have been roundly criticized for doing so.

In many respects the *American Cities* exhibition simply re-states Hitchcock's formalist methods and modernist bias, but it also shows his inventive search for an artistic past for contemporary architecture. (27) In *American Cities*, Hitchcock chose an unusual subject, an excellent photographer, and a persuasive writing style to legitimize modernism and revitalize urbanism.

NOTES

- 1 For more on Hitchcock's contribution to architectural history, see Helen Searing, ed. *In Search of Modern Architecture: A Tribute to Henry-Russell Hitchcock*. (Cambridge, MA: MIT Press, The Architectural History Foundation) 1982; “Henry-Russell Hitchcock: Formative Years” *Skyline* (December 1982): 10–11; “Henry-Russell Hitchcock: The Architectural Historian as Critic and Connoisseur” In *The Architectural Historian in America Studies in the History of Art*, ed. Elizabeth Blair MacDougall, 35

(1990): 251–163; “From the Fogg to the Bauhaus: A Museum for the Machine Age” in *Avery Memorial, Wadsworth Atheneum*, Eugene Gaddis, ed. [exh. cat., Wadsworth Atheneum], (Hartford, 1984): 16–30. For obituaries of Hitchcock, see Brendan Gill, “The Singular Henry-Russell Hitchcock” *Architectural Digest* 47 (July 1990): 33, 36; William Jordy, *New Criterion* 5 (April 1987): 79–81; Helen Searing, *Progressive Architecture* 68 (April 1987): 27, 31; John Summerson, *The Architectural Review* CLXXXI.1083 (May 1987): 5.

- 2 Reynier Banham, “Actual Monuments” *Art in America* 76 (October 1988): 172–177, 213, 215. The article posthumously reprints the text of Banham's lecture. Banham, who died in March 1988, was to have succeeded Hitchcock as professor of architectural history at the Institute of Fine Arts.
- 3 Referring to the International Style exhibition of 1932, critic Brendan Gill called architectural exhibitions “something of a novelty at the time, especially in a museum”. Brendan Gill, “1932”, *The New Yorker*, 94.
- 4 Unpublished introduction to *Changing New York*, Wesleyan University, Olin Library, Special Collections, Henry-Russell Hitchcock Collection. See also Olin Library, Special Collections, Henry-Russell Hitchcock Collection, Letter, Hitchcock to Abbott, March 27, 1939.
- 5 Hitchcock's labels and exhibition catalogue contained identical text. They are reprinted in Janine Mileaf, *Constructing Modernism: Berenice Abbott and Henry-Russell Hitchcock* (Middletown, Connecticut: Davison Art Center) 1993.
- 6 Hank O'Neal, *Berenice Abbott: American Photographer*. (New York: McGraw Hill, 1982) 14.
- 7 Helen Searing, “Henry-Russell Hitchcock: Formative Years”, *Skyline* (December 1982) 10.
- 8 For the genesis of this exhibition, and differences between the exhibition and the book, see Terence Riley, *International Style: Exhibition 15 and the Museum of Modern Art*. New York: Rizzoli, 1992. Riley concludes that Hitchcock was most influential in writing the book, rather than in installing the exhibition.

- 9 Franz Schulze, Philip Johnson: Life and Work (Chicago: University of Chicago Press, 1994) 61.
- 10 Henry-Russell Hitchcock and Philip Johnson, *The International Style Architecture Since 1922*. (New York: W.W. Norton & Company, 1966) 13. Originally published as *The International Style: Architecture Since 1922* in 1932. Citations below are to the later, more accessible reprint.
- 11 Banham, Reyner. "Actual Monuments" *Art in America* 76 (October 1988) 176.
- 12 Hitchcock and Johnson, 33.
- 13 Photograph in the collection of Berenice Abbott/Commerce Graphics, Ltd., Inc., New Jersey.
- 14 Cited in Riley, 213.
- 15 A.E. Richardson, "A Great American Architect" *Architectural Review* LXXX. 478 (September 1936): 119-120.
- 16 James F. O'Gorman, H.H. Richardson and his Office: Selected Drawings. (Cambridge, MA: Department of Printing and Graphic Arts, Harvard College Library, 1974) 71.
- 17 Montgomery Schuyler. *American Architecture and Other Writings* 2 vols. ed. William H. Jordy and Ralph Coe. (Cambridge, MA: Belknap Press of Harvard University, 1961) vol. 1, 264. Originally published, 1892. Also quoted in James O'Gorman, H.H. Richardson Architectural Forms for and American Society. (Chicago and London: The University of Chicago Press, 1987) 82.
- 18 In 1947 a second exhibition of Richardson's architecture was installed at the Museum of Modern Art, also using Abbott's photographs. These were greatly enlarged and hung against a terra cotta colored wall. The Museum of Modern Art, Exhibition 344, February 5 – April 6, 1947.
- 19 Riley, 80.
- 20 Riley makes a similar argument for the style of the photographs in "Modern Architecture – International Exhibition" saying the style reveals "a certain objective detachment consistent with the curators' attitudes toward architecture", Riley, 80.
- 21 Mileaf, reprint of Hitchcock's labels, 63.
- 22 Mileaf, reprint of Hitchcock's labels, 62.
- 23 Hitchcock, Mss. for Lecture, 1936. Wesleyan University, Olin Library, Special Collections, Henry-Russell Hitchcock Collection.
- 24 For an excellent analysis of Hitchcock and Mumford, see Gail Fenske, "Lewis Mumford, Henry-Russell Hitchcock, and the Bay Region Style", in *The Education of the Architect* (Cambridge: MIT Press, forthcoming). I want to thank Professor Fenske for allowing me to read her unpublished manuscript.
- 25 Dell Upton. "Outside the Academy: A Century of Vernacular Architecture Studies, 1890–1990", *The Architectural Historian in America*, *Studies in the History of Art*, 35. ed. Elizabeth Blair MacDougall, 1990: 210.
- 26 Elizabeth McCausland, reprinted in Susan Dodge Peters, "Elizabeth McCausland on Photography" *Afterimage* 12 (May 1985): 10-15. 11.
- 27 Searing writes that this view of Hitchcock as a formalist and orthodox modernist is overly reductive: "He was in no way ignorant of the diverse social, cultural, and scientific contexts in which architecture is embedded, but the method by which he wove these strands together was more subtle than that of numerous present-day authors who exalt the context at the expense of the work of architecture itself. 252. "Henry-Russell Hitchcock: The Architectural Historian as Critic and Connoisseur" in *The Architectural Historian in America* *Studies in the History of Art* 35 ed. Elizabeth Blair MacDougall, 1990.

ARCHITECTURAL HISTORY



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The Lesson of Eastern Europe

"Universality and Heterogeneity", the main theme of the fourth DOCOMOMO Conference, is, in spite of all appearances, a subject matter of a general nature. At the first glance, the regional reflections of the Modern Movement seem to be a problem of the centre and periphery which concerns mainly the under-developed countries or those importing new ideas and forms from outside. Apart from the fact that countries like England, the Scandinavian states and even the Americas should be considered peripheral from this point of view, this assumption cannot be maintained if we consider modulations within the activity of avant-garde centres when the next generation began to interpret the work of the pioneers. Moreover, there was a perceptible shift in the attitude of some functionalist masters, including Le Corbusier, Rietveld, Dudok, Aalto and others, towards an architecture which could integrate more humanistic concerns such as organicism, contextual relationships and regional traditions. Unfortunately, papers submitted to the Architectural History session did not cover this larger scope of the subject. Although several speakers selected for the "Kaleidoscope" session will supplement our discourse, and most contributors deal with Central and East European matters, large areas remained uncovered. The Scientific Committee of DOCOMOMO, afraid that the audience may not get a comprehensive picture of the host region of this conference and in view of the complex nature of the theme, invited me, as a member of this committee, to prepare an introduction to this morning's session.

My paper tries to offer you an account of a region that is called by its residents Central Europe or East Central Europe, while Western observers tend to name it simply Eastern Europe. The most expressive of its denominations is the German term "*Zwischen-Europa*", for this part of Europe – extending from the Adriatic to the Baltic Sea – has always had to find its way between West and East, encircled and often occupied by great powers.

In order to understand the peculiarities of this region and the different countries within it, we have to look back into history. East Central Europe has always been a tapestry of nationalities. The mixed national character of the independent Central European kingdoms endured even when they had been absorbed, at the end of the Middle Ages, into expanding empires such as the Holy Roman Empire, the Habsburg Monarchy, and the Russian and Ottoman Empires. Although the frontiers had been frequently changed, three of these empires survived up to the end of the 19th Century, the Habsburg and Russian ones until the end of World War I. By suppressing all separatist movements the empires delayed the development of modern nations on their territory. People compelled to live within an imperial framework could achieve a relative autonomy only in the field of culture. This is the reason why East European literature, music, fine art and architecture was so much interwoven with nationalism at the end of the last century.

The Great War brought these nations independence through the dissolution of the Austro-Hungarian Monarchy and by forcing back Russia and Turkey. New nation-states and federations were established, but the dictated peace did not solve the problem of nationality. The newly-established borders in many cases did not correspond to the territorial distribution of the nationalities, and this proved fertile soil for new enmities. The new countries differed much from each other as far as their state of development, policy, social composition and mentality were concerned. I believe that the various attitudes of new Central and East European states to modern architecture depend to a considerable degree on these facts. Otherwise, we cannot explain how it is possible that the equally

strong Polish, Czech, Hungarian, Yugoslav and Rumanian avant-garde movements resulted in modern architectures of such different kind and quality. Sartoris's famous book *Gli elementi dell'architettura funzionale* offers a comprehensive panorama of the International Style but the East European examples in it seem to be randomly chosen and there are enormous disproportions among the countries (e.g. Bulgaria is represented by no more than one axonometric drawing, Yugoslavia by two etc.). To turn avant-garde dreams into reality, a series of prerequisites were needed: clients who were willing to accept new ideas on architectural design, a developed industrial background, a stable economy and social system, and finally a desire for the renewal of life-styles.

Let us review briefly the East Central European region from this point of view.

Major nations of the former Habsburg Monarchy

There is no doubt that, until the First World War, **Austria** was the most important cultural centre of Central Europe. Her leading role was lost with the dissolution of the Austro-Hungarian Monarchy when the imperial centre turned into one of the smallest nation-states of the region. The "dreams" of the turn of the century were replaced by the harsh "reality" of the 1920s. Though Austria had to face serious economic problems and a tragically divided political scene between the wars, the large-scale municipal building programme of Vienna was imposing. The Viennese conception of social housing, however, was far removed from that of the Modern Movement. Most of the Austrian architects had some aversion to radical functionalism, very few worked in this manner (e.g. Ernst Plischke) and the only important manifestation of modern architecture in Vienna is the experimental housing estate of the Austrian Werkbund (1930-32). Influential architects such as Adolf Loos, Josef Frank and Oscar Strnad refused all kind of dogmas and managed to reconcile modern thinking with traditional values. The activity of these architects met with a warm response in particular in Moravia, Croatia and Hungary. During the 1930s a regionalist version of modern architecture proliferated in the countryside (Clemens Holzmeister, Lois Welzenbacher).

Conditions for the development of a modern architecture of high quality were best in **Czechoslovakia**. The new state that had been created with the assistance of the Great Powers in 1918 united, in the spirit of Pan-Slavism, the Czech, Moravian and Slovak people who would live together with considerable ethnic minorities. In contrast to the post-Habsburg Austria and Hungary, Czechoslovakia found herself with relatively fewer economic and social problems for she inherited the majority of the Habsburg industrial base, and her prospering economy combined with a strong sense of victory. The stable social composition did not imperil a democratic system led by an enlightened intellectual. During the 1920s a general shift occurred within the economy and culture from Vienna to the West, which was well expressed by the transition within architecture from Otto Wagner and Adolf Loos, via the short detour of rondocubismus (regarded as a national style!), to Le Corbusier and Dutch functionalism. From the second half of the 1920s, the modern idiom adopted widely by architects became the symbol of Czech national identity. This is a paradox, of course, but the International Style of Czechoslovakian architecture expressed well the aspiration of the new state to become an integral part of the Western World. On the other hand, the modernist architectural language used throughout the country suggested the image of a national unity which did not actually exist. But this is true only when speaking about Czech and Moravian architecture. The Slovaks, who laid claim to a wide autonomy within the federation (they did not receive it), interpreted national identity in a slightly different way. This part was less developed when compared to the North, and too remote to attract foreign investors. Their architecture is therefore not so homogenous and has a clear regional character.

In Czechoslovakia the government launched a national social programme, the focus of which became the expression of modernity in the sphere of education, social welfare and administration. In addition, modernism was received with open arms by the private sector. A number of merchants and industrialists also played a decisive role in proliferating the radically new architecture, primarily Tomáš Baťa in Zlín.

The other member of the Dual Monarchy, **Hungary**, regained her independence after a painful internal crisis and with far heavier losses than Austria had. The revolution of 1918 resulted in a short-lived communist dictatorship which provoked a right-wing reaction. The peace treaty annexed two-thirds of Hungary's former territory to the succession states with a great number of native Hungarians living there. All this meant a desperate position in terms of economy, social and psychological problems. The consolidation of the country was achieved quite well and rapidly, but the conservative régime that would rule up to the Wall Street crash refused all progressive ideas in the field of culture. The promising development of rational architecture of the pre-war years was halted. The Hungarian avant-garde was forced to emigrate and worked mainly in Vienna, Berlin and the Weimar Bauhaus. After having returned to Hungary, these leftist artists and architects formed the opposition to the establishment and, as such, could expect commissions only from intellectuals and enlightened manufacturers. The newness of bold white villas created, during the 1930s, its own tradition and a domesticated version of modernism became widely accepted. Architects went on designing houses, luxurious apartment blocks and public buildings in various modern idioms up to 1942, a year when hardly any country was producing modern buildings in Central Europe.

The Baltic region

After several partitionings that had occurred during the previous 150 years, **Poland** became an independent state once more in 1918. Tailored by the Great Powers a little smaller than it used to be, the new Poland still passed for a large country in Central Europe. The reconstruction was not easy because of war damage and the unfavourable consequences of the former tripartite occupation of its territory. Nevertheless the overwhelmingly agrarian country managed to develop a serious industrial area in its central part and to build up the new harbour at Gdynia. Parliamentary democracy was interrupted in 1926 when Marshal Pilsudski took power and established an authoritarian régime which survived up to 1939. In the first decade of in-

dependence the main task was to provide national administration, education and culture with new buildings, the style of which was usually monumental neoclassicism or a so-called national style. Polish architects of the avant-garde had to make do with projects and exhibition pavilions initially and with smaller commissions later. The most fascinating MoMo buildings are private villas where architects could experiment more freely (Brucki's own house). Housing cooperatives also kept modern architects busy with designing new housing estates (e.g. WSM and ZUS in Warsaw-Zoliborz and Rakowiec). The 1930s were dominated by a pragmatic "semi-modernism" that had sometimes regionalist, sometimes classicist overtones.

The three small Baltic states were established in 1918 and existed until 1940, when the Soviet Union annexed them. **Estonia** and **Latvia** had never been independent before, only **Lithuania** could look back on a glorious past when, in the Middle Ages, it was a grand-duchy on a huge territory. During the 1930s the new republics had to replace their parliamentary democracies with authoritarian régimes on account of communist agitation. All the three countries had rapidly rebuilt their national institutions and culture. Estonia was the only one of the three where the modern architecture predominated. They took the international modernism as a starting point from which to develop a national style. By the use of traditional materials and a special aesthetic concern, functionalism was there given a local character. In Latvia and Lithuania modern architecture was more moderate and saturated with Beaux-Arts traditions. In Kaunas some more Art Deco and modern classicist buildings are to be found, while the architecture of Riga was influenced mainly by German models.

The Balkan Peninsula

From among the countries that were liberated from centuries-long Ottoman oppression around 1870, **Rumania** was the only one not belonging to the Slavic family of languages. Proud of the Latin origin of their language, Rumanians have always striven to maintain friendly relations with the West, and France in particular. Yet they had to face serious difficulties when, at the end of the Great War, the Old Rumania

was given Transylvania, which as a part of the Habsburg Empire had had quite a different culture. The territory of the former small Balkan state was doubled and great prospects were opened for her economic development, though hostilities in internal politics did little to help. To balance the extremes the "royal parliamentarism" of the early years was replaced in the course of the 1930s by a "royal dictatorship". In spite of all this, the architecture of the cities and especially that of Bucharest underwent a considerable change. Modern architecture that had emerged from the avant-garde movement prevailed, from the end of the 1920s, over historicism and national styles. A peculiarity of Rumanian functionalism is that architects were more interested in stylistic experiments than in social concerns. There was almost no social housing programme, while the progressive spirit of private investors and the assistance of local authorities resulted in a large-scale apartment construction. The models for the smart apartment blocks that create grandiose ensembles along the new avenues are to be found in Paris (works of Ginsberg, Roux-Spitz, Mallet-Stevens) where a great number of Rumanian architects had studied or stayed for some time. In the late thirties the modern style absorbed more and more of the monumentality of classicism, another proof of the Beaux-Arts conditioning of modern architects in Rumania. As a result of the peace treaties, the small kingdom of Serbia became a medium-size power by forming a federation with the Croats and Slovenes. This federation, which united all Slavonic nations of the Balkans except the Bulgarians, was far more heterogeneous than Czechoslovakia. Along with the three founding nations a large number of ethnic minorities also lived there. The most important of all conflicts, however, was the fracture between Serbs and Croats, one belonging to the orthodox Church and the Balkan cultural context, the other, as an autonomous part of the former Habsburg Empire, belonging to the Catholic Church and Western culture. On a political level this antagonism was well expressed by the continuous conflict of Serb centralism and Croatian federalism. The federation was given the name of **Yugoslavia** in 1929 when the king proclaimed his dictatorship. Those most content with this development were the Slovenes, who had long been an

oppressed minority within the Habsburg Empire and could now develop freely their national culture. National traditions played an important role in Slovenian architecture too, and the activity of the great master, Jozef Plečnik, was a hallmark of the period. The modernist opposition became shaded by his personality and those working in the modern manner, with the exception of a few, often used classical elements in their reserved architecture. Serbia, for her part, had a strong tradition of academism and a national style—a mixture of Byzantine and expressionist motifs. Modern buildings appeared around 1930 and their style developed from a constructive functionalism to a modern mannerism. The elegance of apartment blocks and the monumentality of national administrative buildings are reminiscent of their Rumanian counterparts. Croatian modern architecture was perhaps the nearest to the Modern Movement. It was initially dominated by Viennese influences (pupils of Wagner and Loos worked there), but the attention of architects turned soon to Western Europe. The main sources of inspiration were Germany and the work of Le Corbusier, but the young generation educated by Drago Ibler adjusted the International Style to the local context.

The fate of **Bulgaria** was determined by the long Ottoman occupation and two successive defeats suffered during the Balkan War whereupon she lost extensive territories. The economy of the basically agrarian country was unstable and the chaotic internal situation lasted until the mid-thirties when autocratic rule became entrenched. Conditions for modern architecture were not the best. The fading of historicism was slow and the wish for a national style remained strong, while modern technology was still missing. Bulgarian architects graduated mainly from foreign universities and academies, and some of them became followers of modern tenets. Their practice embraced mainly two building types: the private house and the cooperative apartment block. Public buildings were conceived in the style of a modernized classicism and most of the constructions could be characterized as having a conventional modern imagery that effected more the exterior than the inner organisation.

Conclusions

What can we say now about the regional reflections of the Modern Movement? First, we can draw a parallel between politics and architecture. Just as most of the above-mentioned countries had to adjust the Western democratic ideal in their system of government to imperfect circumstances, in the same way architects of the region adjusted (with the sole exception of Czechoslovakia) the international functionalism to the local conditions. Secondly, modern architecture in East Central Europe has a more reserved and ponderous nature. Masses are earth-bound, surfaces are mostly closed, and all this is far from the light-weight construction and floating space conception of Western functionalism. This is partly due to climatic reasons and to conservatism in the life-style, but it is due above all to the relative backwardness (in terms of Western Europe) of this region's countries (with the exception, of course, of Bohemia and Moravia). As Farkas Molnár, a Hungarian pupil of the Bauhaus, noted in 1930: "In the countries of Eastern Europe, where practically there is no large-scale building industry, a New Primitivism will develop in architecture, which will not be as beautiful as its Western model but will be cheaper and thereby closer to the mentality of those for whom it was meant." This "Low-Tech" approach of modern architecture does not necessarily mean unimpressive realisations. Some brilliant constructive talents such as the Russian Konstantin Melnikov or the Hungarian Béla Sámsondi-Kiss, both from rural backgrounds, completed modern buildings with unusual, tradition-based constructions.

At several spots in Eastern and Central Europe architects were deprived of the social task because no one had undertaken to build for the *Existenzminimum*. They also had to use traditional and cheap building materials and technology for lack of advanced products and methods. Nothing was left to them but the new aesthetic. The question of style acquired, therefore, a primary importance. Stylistic modulations are numerous to such an extent that we stand perplexed when trying to give them all a name. Within the modern idiom there is the organic, the maritime/nautical or streamline style (seaside architecture in Gdynia, Eforie, Nesebar etc.), the pragmatic modernism (everywhere), funcio-

nalism combined with traditional/local building materials (Estonian limestone functionalism etc.), regionalist versions, modern classicism and the most general, "semi-modernism".

Some important questions follow from all this. What shall we do with those countries that could not transcend local constraints and cannot present in the name of MoMo other than superficial modernism or a mixture of modern, Art Deco and classical ele-

ments? In spite of some reasonable aversions on the part of DOCOMOMO International expressed in the Journal, I would tend to include to a certain extent modern imagery (i.e. modernism) in the Registers, along with conceptually strong examples. Otherwise we shall to exclude whole countries, especially from this region. The theoretical rigour in the selection of buildings for the Registers is also worth discussing even in the case of Western exam-

ples. Does the work of Dudok, Peutz, late Asplund, Kay Fisker or Häring and Josef Frank belong to the MoMo or not? Considering the relevance of these issues, I think the establishment of an ISC on History within DOCOMOMO is vital. This forum could make possible a cooperation of experts, in order to revise, on the basis of registers, the world history of MoMo and thus offer a genuine and well-balanced panorama in seminal publications.

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Architecture as Object and Habitability: Karel Teige a Master Builder of Utopias?

The life and works of Karel Teige (1900-1951) are of great interest to me because of the difficulties that are still being encountered in the search to have a perspective from which to read the modern tradition and, in particular that of 20th-century European culture.

I began to study Karel Teige in 1976, the year in which I decided to accept the subject suggested by Professor Manfredo Tafuri for my degree thesis. I graduated in 1980 at the University Institute of Architecture in Venice (IUAV) with a thesis entitled: *Karel Teige, Critic of the Avant-garde. Czechoslovakia and Architectural Culture: Avant-garde as New Art*.

Since that time, I have been continuing my studies on Teige. The perspective I shall propose for our reading of Teige's work is the result of a joint project that I am undertaking in collaboration with the ALEA Cooperative in Udine, the Department of History of the IUAV in Venice and the University of Trento, this project being dedicated to the theories elaborated by Teige, and other Czech architects, on the *Existenz-minimum* theme, and collective houses.

The project has already produced a special issue of the journal *RASSEGNA* (no.53/93), edited by Vittorio Gregotti,

and the exhibition *Karel Teige. Architecture, Poetry. Prague 1900-1951*, which was inaugurated in Trieste last 4th April and will be in Rome next December.

Teige's personality is really very complicated, today unbending to a linear reading. His historical-artistic and literary profile, his wide culture, his strong creative and expressive feeling, make him a man of multifaceted mark: Teige as a writer and a poet, Teige as a critic of literature, films, theatre and architecture, Teige as a graphic designer, Teige as a painter and an "artist" ... a highly significant figure in the 20th-century European avantgarde.

The studies I have been undertaking highlight Teige's engagement in founding a modern culture, Czech and European, and then the analysis of the role he ascribes, in this "modern project", to architecture. His writings on this matter today offer us very useful starting points for reflection.



Karel Teige around 1918. Atelier Drtikol. Památník Národního písemnictví, Prague

Why does Karel Teige put architecture at the centre of the very idea of creativity? Because he locates in the discipline an occasion to employ "dynamic" expressive instruments which are able to put into action more complex processes: a house must be a space to live in, and must therefore find its necessity in harmonising with Man's vital needs. These characteristics, suggests Teige, evoke an emergent social and cultural role of architecture in the process of modernization.

Karel Teige's particular cultural education is a literary one and begins at home where, assisted by tutors, he devours freely. (He will later attend the Faculty of Literature and Arts of the Charles University in Prague, though without completing his studies.) Even at an early age he becomes acquainted with the international figurative culture and experiments with its techniques and principles.

Young Karel absorbs those principles and makes them the centre of his engagement. In 1920 he founds the Prague avant-garde group *Devětsil* and devotes himself with all his energies to the diffusion of the new contemporary culture.

In 1922 Karel Teige went to Paris, the diary of his first journey (from June 18th to July 12th, 1922) being the report of an outright pilgrimage to the Mecca of art, a tribute to his figurative and historical formation. In Paris, Karel Teige meets Jeanneret together with Šíma and Ozenfant (in the afternoon of July 7th) in the editorial office of *L'Esprit Nouveau*.

Back from Paris, at the end of 1922 Karel Teige joins the editorial staff of the "Stavba" magazine and in "Veraikon" (1924) publishes his first article dedicated to Czech architecture. He returns to Paris in the Summer of 1924 together with Seifert and participates in November 1925 in an important group trip to Moscow, thanks to which he comes into direct contact with the most important representatives of Russian constructivism, in particular the Vesnin brothers.

Teige will write thousands of texts and studies by the time of his death, many of them devoted to architecture, in particular to the period from 1923 to 1937. Teige often publishes not only in order to develop his theory but, above all, in order to introduce and diffuse in Prague the news that reaches him from the rest of Europe. In this role he will make wide use of the magazines that he directly leads and even creates, as in the case of "ReD", the *Devětsil's* magazine for culture and topical events, which came out from 1927 to 1930.

The 19th-century art was liquidated; the principles of the avant-garde and its foundation criteria enable Karel Teige to discover that human creativity as such can certainly not be labelled exhausted: there-

fore free art survives. And if art is free, architecture – conditioned by its concreteness and unable to be equally free – cannot be art: this means that its relationship with reality must be different.

It can be stated briefly that for Teige the point of view of modern architecture is not a static point, but a dynamic one; concreteness must be understood as a process. For Teige the main quality of architecture is not linked to the simple aesthetic experience of the concrete object, but also to its being, as a process, "objectifiable poetry", something like a language that – in provisional and fluid, rational and functional equilibriums – crystalizes the necessities that it satisfies. Only as a science will modern architecture be able to ensure, on relative and rational bases and criteria, the continuity of poetry and life in society.

The maximum of formal analysis at which Teige arrives does not lead us therefore to a true theory of the form of the architectonic object, but to a "way" of acting, of planning and building. Teige endeavours to define a method and an approach that restore to us the critical valence of the object.

The polemic provoked by the judgement unexpectedly expressed by Teige in 1929 on the subject of the Mundaneum planned by Le Corbusier in 1928 for the League of Nations at Geneva, may have its origin in the tensions caused in the environment of the Czech architects and in Teige's ideological criticism, by the operation led and desired by Paul Outlet and by the complicity granted to him by that architect. The exchanges of opinion between the two on the subject of the conception and poetic nature of architecture, however, represent an important stage for the development of Teige's thought and, in the debate of the contemporary architectonic culture, they open a chapter of criticism that cannot yet be said to be concluded.

Teige wrote in 1929:

"In what does the unmodern character of Le Corbusier's Mundaneum really consist? From which reason does this architectonic mistake stem? [...] The scientific resolutions of a building task, precisely set out by means of a rational construction, represent the task and the only field of modern architecture. Artistically, to resolve a metaphysical and abstractly



Guillaume Apollinaire: Prsy Tiresiovy, (Breasts of Tiresias) 1926, cover page of Památník Národního písemnictví, Prague

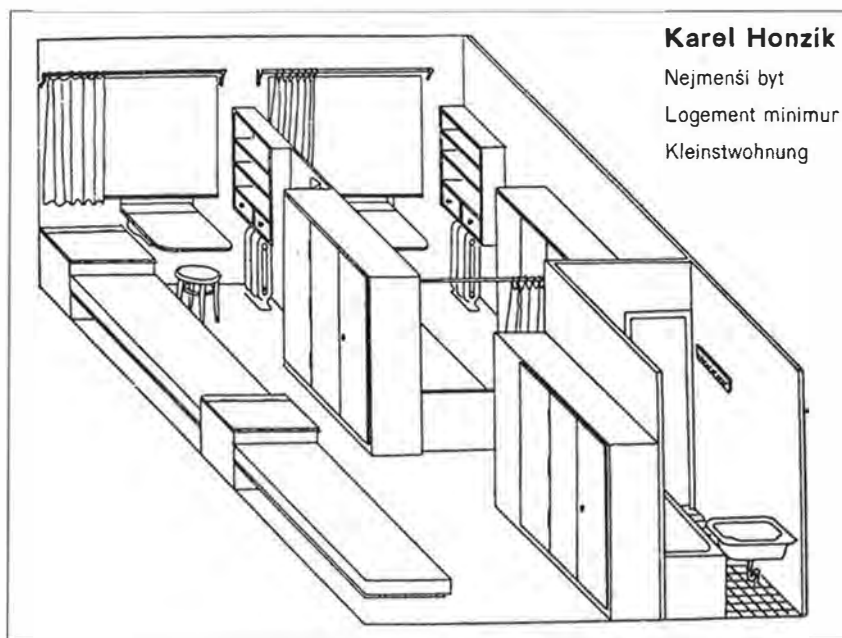


„Disk“ Internacionální revue, I, n. 1, 1923. Graphic designed by Karel Teige. Umelecko Průmyslové Muzeum, Prague.

speculative task with a monumental composition is a mistake whose danger is demonstrated by the Mundaneum. [...] The Mundaneum, in its evident historicism and academism, reveals the impossibility of today's architecture to be intended as art and also the failure of those aesthetic and formalistic theories of Le Corbusier that we have always fought against from a constructivist position: the theory of the golden section, in short all the aesthetic a-priori formulae, deduced from the historical styles, that are intend-

ed formalistically and are nowadays untenable. [...] Therefore not a solution, a realization and a construction, but a composition: a word with which we can express the whole architectonic guilt of the Mundaneum."

It is also interesting to see Teige, in those same years, underlining the importance of the work of Adolf Loos and integrating his fight against the ornament into constructivist principles, raising it to the same level as his own against monumentality and against the artistic industry.



Ladislav Žák, kitchen and living room: design for the exhibition Svaz Českého Díla, 1929, Prague

His very critical point of view links Teige with many other exponents of the European architectonic avant-garde. Among them, the affinity with Hannes Meyer seems to me particularly important. A deep friendship will link Teige to Meyer. The two met at the Bauhaus for two conference cycles: the first one dedicated to advertising, writing, typographical production and theatre, the second one to the sociological meaning of architecture.

The union between the two (as that between Teige and the Czech Jaromír Krejcar), will allow our friends to deepen the concept of science-architecture. Here the prevalent element will be a pragmatic tension to search for and place in a process – and not in a formal principle – the aesthetic value of the architectonic object which is habitable: it is the place in which constructive rationality, habit and behaviour, poetry and life live together.

The purpose and the function of a building are not a "fixed" datum but a "perspective to be deepened. ... Absolute and normative aesthetics are impossible and senseless", and the project is movable and modifiable: architecture and town-planning must ensure with their instruments that one can enlarge, rise, transform. For Teige, modernity is definitely not only a condition but also a tendency that coincides with the aspiration to make Man free and able to act for the continuous changing of society. The realism and the pragmatism on which

Teige's architectonic conception is based diverge from the idea of the avant-gardes to which we have been accustomed, as we interpret the message of freedom as a utopian one (that is absolute) and imagine architecture to be an intellectual product, able to act on the world as such.

Moreover, it must be said that Teige, in devoting himself to a new culture for contemporary Man, concedes to modern architecture theories a leading role, not least because they could be directly connected to the clear Marxist criteria; and it is important in this context, apart from being totally new for us, to point out the refusal of the Czech engineer-architects, and of Teige himself, to permit policy and ideology to make use of their works.

The debate within the group of architects reunited in the Prague editorial office of the magazine "Kvar" (subtitled: "A collection of poetry and science") around 1930 concentrates on these problems.

A large bibliography documents Teige's intervention (as official delegate, together with Špalek, of the Prague CIAM group) in November 1930 at the CIAM congress in Brussels, in which he deals with the subject of the minimum house and illustrates the decisions carried through in the Soviet Union with the proposals for the "common house".

These will be the most important issues discussed in those years, and this is the ar-

chitecture "without qualities" that Teige diffuses during the 1930s, working also with other friends such as Jan Gillar and Ladislav Žák. His contribution appears to be without precedent: his coherence is surprising, courageous, sincere and very useful, as in self-critical tones he highlights the resistances and the frictions, the same irresolvable contradictions that, starting from the second half of the 1930s, interrupt the process of modernity in progress.

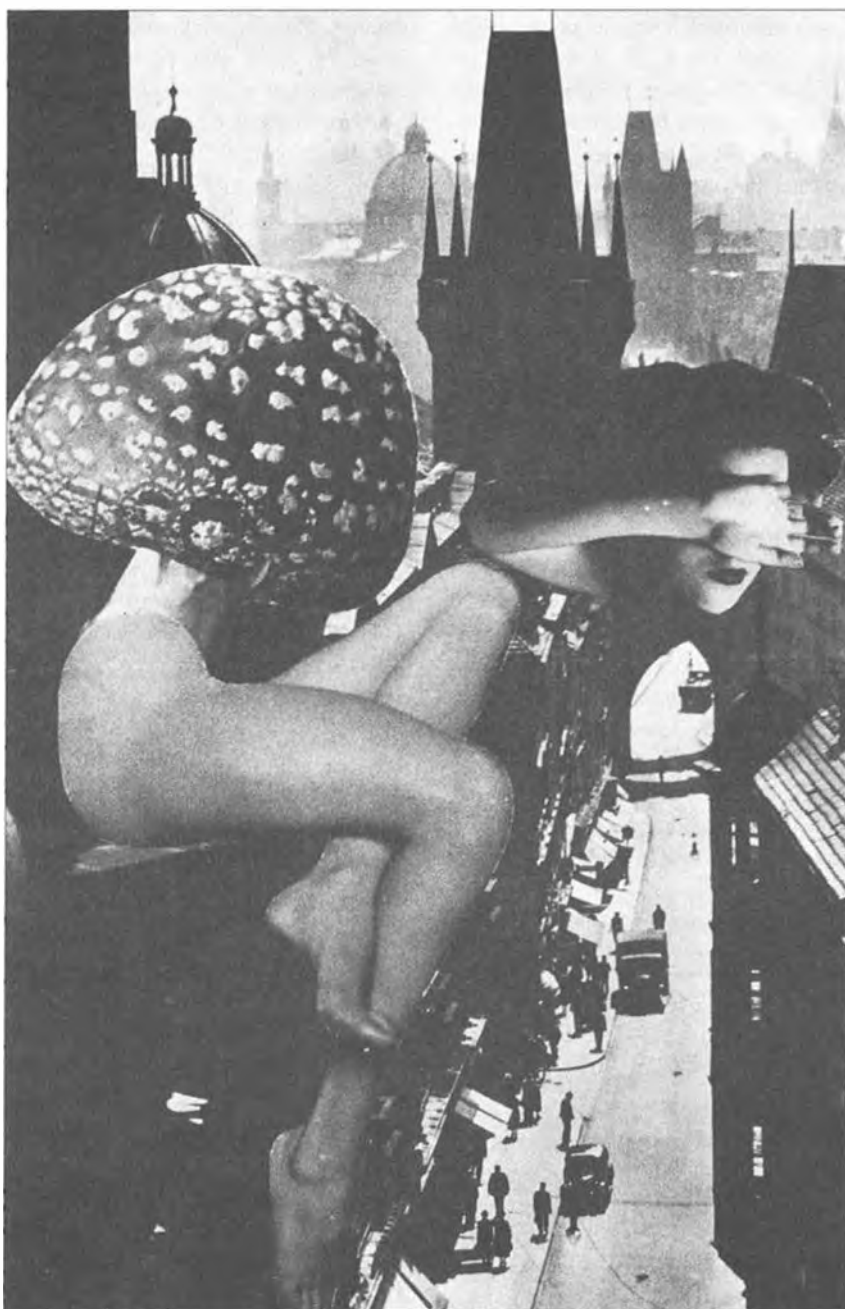
Teige tries to move away from architecture after 1936, but the coherence of his "modern project" will not change. His theoretic hypothesis seems defeated by the personal delusion of 1934 on the occasion of the prizes awarded at the Moscow competition for the Palace of the Soviet (won, already in a first selection in 1932, by Žoltovskij's academic project). That dramatic episode in the history of contemporary architectonic culture means for Teige that he has to turn back on his own steps and meditate on the renewed role of the academy, on the very abstract hypotheses of the avant-garde on contemporary culture, on the resistances that had opposed that process, on the surprise and on the unpreparedness of the architects. But it is a delusion that does not interrupt his theoretical research, that does not undermine his principles and that brings him back to figurative art and, somehow, again, to Man.



Karel Teige, collage number 141, 1940. Památník Národního písemnictví, Prague



Karel Teige, collage number 54, 1938. Památník Národního písemnictví, Prague



Karel Teige, collage number 142, 1940. Památník Národního písemnictví, Prague

But: why were the avant-garde groups not yet mature, as Teige says, for this stage? What were they not prepared for? Maybe to get over themselves and their conquests.

Modernity is not in doubt, but now it has to be searched for methodically.

But how might one guarantee this constant "critical observation" of the world and of reality?

On the way to these answers Teige must, however, go back to figurative art, and again inquire into the ways it could deal with reality.

In the second half of the 1930s Teige resumes the activity – already developed in the early 1920s – with typographical and graphic design: he carries through new editorial projects (with which he succeeds in earning his living) and, above all, the collages that we know today.

The collages of Teige are his methodological, figurative response, notwithstanding the baffling compositions that he proposes. With quotations, fragments, images taken out of the most varied contexts and recomposed to form complex

and finished figures, Karel Teige obtains the critical decompositions that serve to put back into discussion those same fragments, enabling us to see them, but not to interpret them. In most of them appear, together with the inevitable female nude, a vast amount of architectural remains and works, not only of his own times (buildings by Plečník, J.J. Oud, Le Corbusier, Loos, the EUR Palace in Rome, Dientzenhofer, and others), and entire parts of cities (Prague, Venice, Amsterdam, and others).

On questioning myself about the fascination of these works I discover that they have an unexpected force: their force is all in the critical detachment that they ensure and that they restore to us, a real detachment, searched for in the scholarly and indecipherable quotations, wanted with the technique and the rules of the recomposition of the figure.

I think that for Teige, in a condition of relative impotence, this is the way in which the artistic will of contemporary modern Man resists. These are works that become proofs of an engagement never really abandoned.

Karel Teige died in Prague, just fifty years old, on October 1st, 1951.

At the end of this work we really ask ourselves if Teige builds or betrays utopias. It seems to me that he does not propose misleading wings with which to get out of the labyrinth, and that he seems rather to show us how to cross it and how to make it expressible in words, in order to tell us once more, with a surprising and modern old-fashionedness, how to "live in the real world the deepest human poetry". And today I really believe that this is still in itself a very great deal.

And following Teige, even the duty of our own generation appears clear: to learn to work by applying a concept of a project that can no longer be intended as a static pre-figuration of a future condition, but may instead be valid as an image of a temporary synthesis – a synthesis put together while moving from the recording of reality in a constant work of dismantling and reassembling, learning to read what is gathered, arranged, dismantled and re-composed – for that is what that synthesis shows and means – just as a collage does.

Jan Sedlák

DOCOMOMO Czech Republic

Bohuslav Fuchs: The Synthetist of Regional Traditions and International Tendencies

My paper replaces that of Rostislav Švácha of Prague who asked to be excused from attending this conference. He was to speak about the distinctive aspects of

Czech purism and functionalism. Instead of this, I shall speak about the work of Bohuslav Fuchs whose creation has some distinctive features that affected, more or less, the entire Czechoslovak architecture between the wars. At the same time, they attest to the creative regional reflexion of Modern Movement and characterize Bohuslav Fuchs as a synthetist of regional traditions and international tendencies. This view of Fuchs's creative bequest could therefore comply with the basic theme of this conference.

It was Rostislav Švácha who, not long ago, characterized Fuchs – in addition to architect Jaromír Krejcar and theorist Karel Teige, both of Prague, – as the most renowned personalities of Czech modern architecture whose names should not fail to appear in handbooks on European architecture between the wars. In spite of this, a number of the latest publications have failed to mention Fuchs's work, although leading European and overseas architectural journals started to refer to his main executions as early as the late 1920s. So, for

instance, The City of Brno Pavilion, designed by Fuchs and displayed at the Contemporary Czechoslovak Culture Exhibition that took place in 1928 in Brno, was chosen, in 1932, by H. R. Hitchcock and P. Johnson to be exhibited at the International Style Exhibition organized at the New York Museum of Modern Art. Last year, Fuchs would have celebrated his 100th birthday. The City of Brno, where Fuchs had lived and worked from 1923 to 1972, the year of his death, commemorated this jubilee with large-scale events that included: an international scientific conference, an exhibition of his complete work, the publication of his monography and the erection of a monument. Also, the replica of the Zeman Café was built, one of Fuchs's early works which was senselessly demolished in the 1960s to be newly built, by a coincidence of favourable circumstances, last year.

Born in Moravian Wallachia in 1895, Bohuslav Fuchs studied architecture in Jan Kotěra's studio at the Academy of Fine Arts in Prague. Kotěra, Wagner's disciple,



The Power Station in Háj near Mohelnice

became the founder and leader of Czech modern architecture towards the close of the 19th century. A deep mutual understanding arose between teacher and disciple which is attested to by Kotěra's evaluation written on Fuchs's certificate of education: "He is leaving school as an architect with excellent artistic qualification" – and by the fact that, for some time, Kotěra employed Fuchs in his private studio after his graduation and gave him some commissions. The year of 1923, when he started to work at the Brno City Building Office's Department of Regulation and Architecture, became the decisive turning point in Fuchs' life. Here he worked until 1929. After that, he headed his own prosperous design office for more than 15 years. After World War II, he obtained the professorate of urbanism at the Brno Technical University, but in 1958 he was deprived of this position by the communist régime. He preferred a teaching career in his home country to the offer of taking over the professor's chair at Harvard University from Walter Gropius. Fuchs was a permanent delegate to the Congrès Internationaux de l'Architecture Moderne (CIAM) between 1935 and 1948, and member of the Comité International pour la Réalisation de l'Architecture Contemporaine (CIRPAC). In 1937, he became honorary corresponding member of the Royal Institute of British Architects (RIBA) and of other international associations.

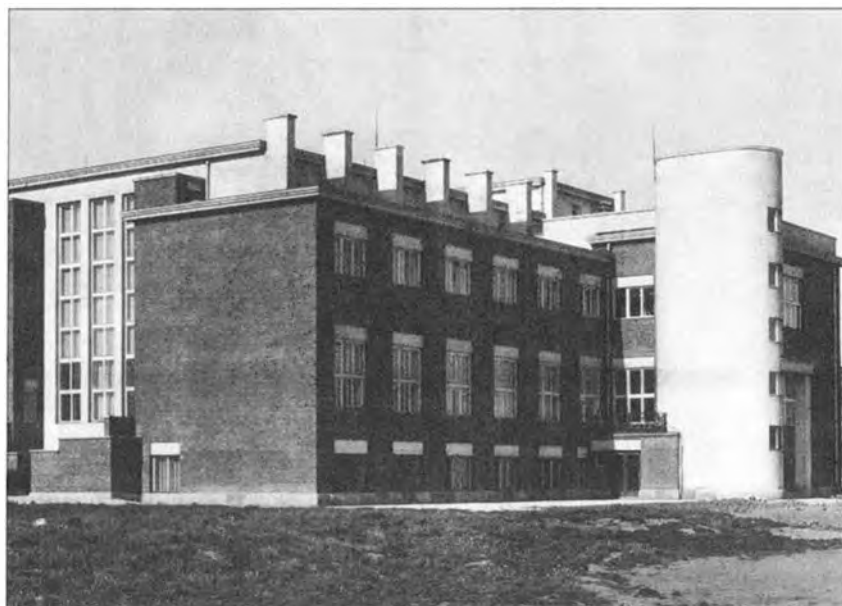
Fuchs's architectural maturation took place throughout one decade, including the period of his studies. After having left school, he soon emancipated himself from paying homage to Kotěra. After he had completed his studies he oriented himself to rondocubism, the most popular architectural style in the Czech lands at that time. Through this style, the efforts of Prague cubist architects before the war around Pavel Janák and Josef Gočár were fading out. While the works of the two above-mentioned architects were declining, more and more, into regionalism, extremes and lack of prospect in the early 1920s, the young Fuchs treated the rondocubistic forms in a way that provided for great possibilities of development. This is best exemplified by the 1921–1923 complex comprising a villa and a power plant in Háj near Mohelnice, which he designed together

with his friend, architect Josef Štěpánek. The rondocubistic lesson covered not only the spatial treatment of the surface areas but, above all, the release of space and its outward plastic and dynamic expression. This technique was convincingly supported also by iconological aspects, pursuing the vitalist idea: the basic art motif of the hydro power plant's front included the idea of the origin, transformation and concentration of energy while the pivotal point of the villa included a column in the hall treated as a sculpture, a kind of tree of life that feeds the entire organism of the structure and embraces it with its branches, embodying, in this way, organic growth and family life as the basis of human society. It was undoubtedly one of the most original works created by the nascent modern Czech architecture, a work that grew from purely domestic traditions which can be, indeed, classified as belonging to the wide current of European expressionism but for which a direct analogy cannot be found. Mention of this work will be made again in connection with Fuchs's other works.

A short time before coming to Brno, and for a short time after that, Fuchs's architectural maturation was influenced by Dutch architecture which, in the first half of the 1920s, strongly affected many Czech avant-gardists as well as older designers, helping many of them find a way out of the deadlock of the national decorative style.

Architectural works made by the Dutch as well as essays written by them were mostly published in *Stavba*, the leading architectural journal, but also in *Stavitel and Styl*, which were also architectural journals. Soon, personal contacts between architects of both countries were established. Through Fuchs, Jacobus Johannes Pieter Oud, Jan Wils and Willem Marinus Dudok were mentioned in Czech literature for the first time. However, it must first be stressed that while Fuchs appreciated the work of the Dutch he kept it at a distance. His structures and designs seldom bear signs of Dutch architecture, and if they do, they are of only a partial nature. Fuchs's characteristic composition of structures, formed by stereometric bodies supplemented by geometric details, can be understood to mean a gradual and independent transformation of his own late cubistic conception. The employment of fair-face brickwork could be understood as a reference to Kotěra who had employed it before 1910. After acquiring knowledge about Dutch architecture, Fuchs commenced to employ colours for his structures, which, later on, played a stronger role in his conception, as well as some lay-out and constructional solutions.

His 1924 and 1925 works represent the initial stage of his mature oeuvre. The building of the *Masná burza* (meatmarket) in Brno can be looked upon as the culmination of his "Dutch" period. Here,



The Meat Exchange in Brno

he obviously began to leave the apriori formal order and to deepen the logical link between function and architectural form, as compared with the "Dutch" structures and designs made a little earlier. Fuchs himself characterized this structure as a large cube of fair-face brickwork, large windows and ferroconcrete interiors. The central hall staircase, strikingly recalling the staircase of Vonk, a convalescent home in Noordwijkerhout designed by Oud and built between 1917 and 1918, can be looked upon as "a borrowing". One year later, Fuchs waged a hard struggle for the appearance of the great hall of the Brno Central Cemetery. In his letters he claimed that his design was reminiscent of a silo rather than a chapel. "I let the ceiling rest on a pair of frames, lined the envelope with nice bricks, provided the crevices with glass bricks instead of windows, paved the floor with marble, and there you are." This testimony alone documents his approach to the problem so that references to Holland or to Frank Lloyd Wright's Unity Church or Larkin Company Building can therefore be understood as having a loose similarity.

Also in 1925, Fuchs and architect Jan Vaněk had a part in executing the serial houses in Brno-Černá Pole for which he applied the "one-wall-house system" designed by Adolf Loos who, just at that time, had frequent professional contacts with his native city of Brno. Fuchs's interest in Adolf

Loos' work is testified to by the fact that some Loosian details can also be found in other buildings designed by Fuchs. One of the tasks assigned to Fuchs at the City Building Office was to make designs for cheap houses built in series. Traces of German influence can, in turn, be found in these designs, with Heinrich Tessenow being mentioned in connection with older works, and Walter Gropius and Hannes Meyer with the later ones. However, it has to be admitted that he failed to achieve excellent results in this field.

The Zeman Café referred to above, designed in 1925 and completed in the spring of 1926, represents a new orientation in Fuchs's "architectural way of thinking". While the accompanying parts of the building still bear signs of the "fading-out" additive elementarism of Dutch nature, these signs are pushed back by the main hall architecture based on a ferroconcrete skeleton filled, from pillar to pillar, with large windows set in steel frames. The windows could be lowered to reach the basement, thus fully interconnecting the interior space with the area of the surrounding park. In its time, this continuous explosive space was among the most radical spatial solutions in Czechoslovakia and anticipated, with its character, the principles employed in Ludwig Mies van der Rohe's Villa Tugendhat in Brno, including

the sliding windows. This concept was of high value particularly for the Czech environment, since spatial issues were, more or less, the "Achilles heel" of Czech architecture. When accomplishing this notable feat, Fuchs was inspired by puristic and functionalistic aesthetics, a new example set by Le Corbusier who, a short time before, visited Czechoslovakia and also held lectures in Brno. With this structure, Fuchs unambiguously professed his adherence to the International Style to which he remained faithful until his death, processing its general principles in a unique manner.

The dynamics of Fuchs's development in the first half of the 1920s was unique because he soon managed to cope with virtually all trends of Czechoslovak and European architecture. This was not easy, especially in the atmosphere of Brno after the war, because it is known from his correspondence that he soon merited the reputation of an agitator, and that there were attempts apriori to exclude his projects from competitions because of their "hypermodernity", and it is also known that conservative architectural circles reigned supreme in Brno, so that it was even necessary to struggle for flat roofs. However, the situation quickly changed thanks to Fuchs and Jindřich Kumpošt, his friend and superior at the Building Office. Young progressive architects (Karel Kotas, Josef Polášek, Jan Víšek, Oskar Poříška and others who appeared later) were persuaded to work in and for Brno, so that Brno became – along with Prague and Zlín – the centre of modern architecture before 1930, and its reputation slowly began to pass beyond the borders of Czechoslovakia. Mention was made of the Brno architectural school, with Fuchs being considered its head. His role as a leader manifested itself also in designs made in cooperation with other architects, all of them being always the most renowned. In addition to Kumpošt, he most frequently cooperated with Polášek and, several times, also with Ernst Wiesner. After 1929, his private studio became a kind of laboratory for progressive architectural ideas. A number of architects from home and abroad who gradually became famous had practised in this studio (among others Zdeněk Rossmann, Josef Kranz und Lotte Stam-



The Zeman Café in Brno

Besse). Fuchs was equally successful as an organizer and he was also a sociable man so that his clientèle was growing steadily. It was Jakub Deml, a writer and Fuchs's first private client, who called him "a man of deed", and as time went by this characterization proved increasingly correct.

Fuchs' work culminated between 1925 and 1935, these years being called the heroic period of functionalism. In 1927, he designed three buildings that were constructed the following year. Strangely enough, the aforementioned City Pavilion had a wider reception abroad than in Czechoslovakia. The Prague critics around Karel Teige, an uncompromising supporter of scientific and anti-artistic architecture, opposed the building's excessive artfulness and a certain heterogeneity of conception. A one-storey prism on pillars with large interior spaces complied with the requirements of that time, indeed, but the brick facing of the façade, a great portion of sculptural and painting decorations and a proposed winding stair near the back elevation did not fully meet them. What made Fuchs differ from most of the Prague orthodox functionalists was his "programme-like" sense of art features of architectural works, and his efforts to make sure that they made an emotional impression. The City of Brno Pavilion summarizes the whole creative experience of Fuchs, and it also contains prefigures his further development. On the one hand, the brick facing slabs recalled the "Dutch" trends, on the other hand, the plastic accentuation of the open spindle staircase appears to have drawn on the rondocubistic complex in Háj near Mohelnice or to open up the way for Fuchs's organic architecture that appeared somewhat later.

Parallel to the exhibition pavilion was conceived the Avion Hotel. This is probably Fuchs' most important and famous work, to which he himself attached the highest value. The first study for this hotel was conducted towards the close of 1926. One year later, the quality of the concept was substantially enhanced. As with other works, each variant of the commission, which developed in stages, implied a substantial enrichment to the basic idea. The Avion Hotel, the café of which became the social centre of the artistic avant-garde, is situated on a strikingly narrow parcel of land, being four times as deep as it is wide. In spite of this, Fuchs

succeeded in housing the entrance, the reception desk and the cafeteria on the ground floor, and a two-storey café above

them, the café opening onto the central space through galleries. Above the café are the hotel floors, with the last one reced-



The Avion Hotel

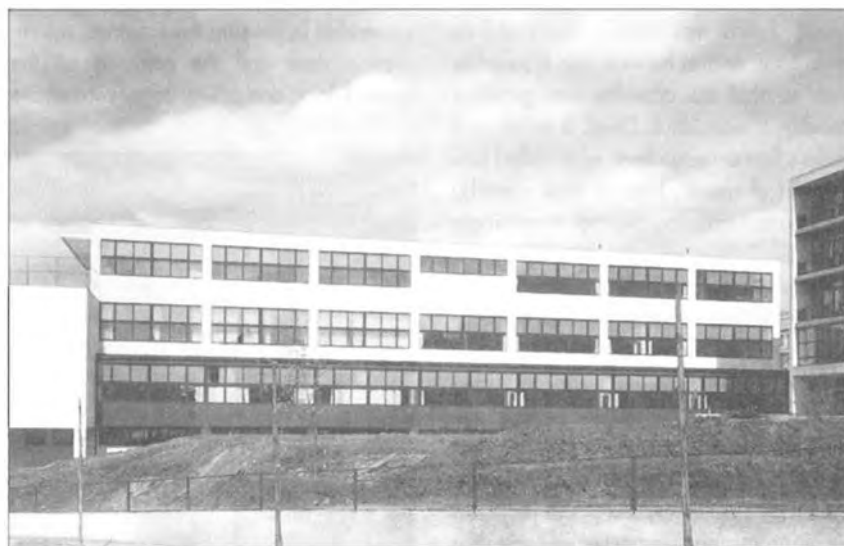
ing, together with the garret. The operations do not conflict with one another, although they remain interconnected. The *piano nobile* of the café offers the visitor a unique experience from the metamorphoses of forms, spatial throughviews and light effects achieved by a sophisticated horizontal and vertical composition of space. I cannot but repeat Vladimír Šlapeta's words that it is a unique transformation of Loos's *Raumplan* into an elegant architectural form à la Le Corbusier. Fuchs's extraordinary ability to form space is seen by Zdeněk Kudělka as having a certain analogy with spatial concepts of the masterpieces of Czech baroque architecture. Nor should we forget Rostislav Švácha's observation that the buttress on ancons and the strip windows by which the café opens onto the street, represent "Pure Bohemism". The same motif did not appear with Le Corbusier until 1933, namely with his own tenement house in Paris, accommodating the Master's studio on the upper floor. Fuchs applied the same principles and the same architectural standard in



The Moravia Bank in Brno

building his own house in Brno.

Having won the competition for the building of the Moravian Bank in Brno in 1925, Fuchs was given the first opportunity to confront his architecture with the older development of the historic square in the very centre of the city. In the end, he executed this building with the help of Ernst



The Vesna Vocational School for Women's Occupations and the Eliška Machová Dormitory

Wiesner. Having won the same award in the competition, Wiesner designed the interior of the bank. The building had two equivalent fronts, facing the square and the parallel street. They were linked by a retail passage functioning as part of the City Centre infrastructure. Although Fuchs did not strive for contextual architecture, he succeeded in integrating his structure into the historic environment. This was due, first of all, to the very high standard of the new architecture. He balanced the typical functionalistic horizontality by equivalent exterior perpendiculars that appear to repeat the verticality of the neighbouring buildings and, using suspended glass fronts, he achieved the necessary neutrality. A short time later, he attained success in the competition for the Masaryk students' dormitory, a cultural and social centre for high-school students in Brno. He expressed the variety of functions by dividing and grading the volumes, the dynamic expression of which he underlined with colours. The appearance of these two buildings is rather different. This stems from the elementary character of Fuchs's work, which acquired a characteristic feature towards the close of the 1920s. This feature rested in the fact that it was not the formal speculation or foreign models that were decisive for the design of this or that building, but a universal analysis of the task in terms of its uniqueness in the complex of functional, aesthetic, social and natural factors. Put simply, the commission itself should, as it were, tell the designer what the architecture of the building should look like after the

commission has been thoroughly studied. Hence, Fuchs's broad formal diversity can be understood.

Also in 1929, Fuchs won several competitions. At that time, the Vesna School complex and its dormitory, located in a Brno villa suburb, were designed and built. When designing this vocational school for women's occupations he joined Josef Polášek who had returned from a study tour to Holland a short time before. Most probably, it was upon his initiative that "Dutchisms" appeared on the school building and the Eliška Machová Dormitory again, this time, however, predominantly in the lay-out and structural designs. Otakar Máčel of the Faculty of Architecture at the Technical University of Delft has recently investigated Fuchs's relationship to Dutch architecture in greater detail. He discovered that when designing Vesna, Fuchs was inspired by school buildings designed by Willem Marinus Dudok, especially by that built in Boschdrift, a blue-collar workers'



The City Baths in Brno-Zábřeh



The Morava Convalescent Home in Tatranská Lomnica

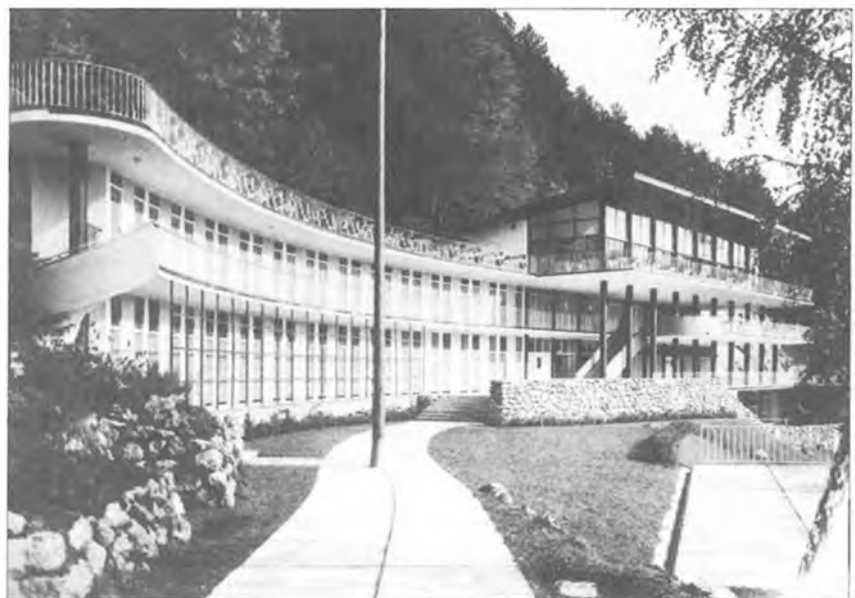
housing estate in Hilversum. This applies to the two-wing section of the building containing classrooms, and the rectangular connection of the other utility facilities. In addition, Fuchs and Polášek separated the classroom wing from the corridor by folding walls so that the adjacent space of the corridor could be interconnected with classrooms, with running balconies functioning as passways. The access road is faced by Vesna's prism-shaped gymnasium situated one floor lower, the front of the gymnasium being a masterpiece of perfectly balanced and, at the same time, artistically impressive composition. Only this part of the complex can be seen from the access road, giving the impression that it is only a villa-type building similar to those surrounding it. This is further evidence of how Fuchs managed to organically integrate his buildings into the neighbourhood, forming this simultaneously. The dormitory accommodating the Vesna students and single women in employment adjoins the school in a characteristic perpendicular position. Although Fuchs designed this building alone, the applied "Dutch" principles were obviously again influenced by Polášek. They manifest themselves in the transversal bearing walls which made it possible to provide each room with a deep loggia with a glassed front.

Another building of this period designed by Fuchs, the City Baths in Zábřeh, one

of Brno's suburbs, was characterized by Karel Teige as being the most advanced work of the Czechoslovak avant-garde. The baths comprise two separate operations, the Winter Baths and the Summer Baths. The bare ferroconcrete skeleton of the Winter Baths building, filled with windows and fair-face brickwork, recalls the Zlin-type industrial architecture that matches the industrial outskirts. Fuchs designed the spacious summer section employing the principle of the greatest-possible openness and transparency so that the whole com-

plex is opened to the sun, air and greenery to a maximum degree. The proposed staircases of the cloakrooms, the diving tower and the slide comply with the idea of beauty of technical structures of that time. The colourfulness that was adjudged by Fuchs to play an important role within this complex – in harmony with its recreational and sports purpose – can be considered to follow, once again, the Dutch examples.

When speaking about Fuchs's most important buildings of the first half of the 1930s, we have to move to Slovakia, where



The Green Frog Thermal Swimming Pool in Trenčianské Teplice



The City of Brno Pavilion

the best of them are concentrated. Immediately after completing the Eliška Machová Dormitory in Brno, Fuchs applied the cell-like grid of loggias to the residential section of the Morava Sanatorium in Tatranská Lomnica. This time, however, he designed the receding glass walls to be situated diagonally to ensure better orientation. In this way, he not only dynamized and dematerialized the envelope and suppressed the contrast of the "contoured" building and the endless natural surroundings, but he also accentuated the requirement for individual separation. The dwelling block was – as its counterpoint – supplemented by a social section, the forms of which expressed, in turn, a collective mission. Fuchs developed the principle of dynamic division to the utmost with the 1935 tenement house on Hiezdoslav square in Bratislava. On its front, flat areas encounter oblique areas, and protruding oriels with balconies contrast the deeply recessed loggias. Jiří Kroupa has recently indicated that this work of Fuchs contains the inchoate signs of deconstructivism.

With the convalescent home in Tatranská Lomnica, Fuchs's basic idea was that, in modern architecture, the only form that can possibly supplement the ragged silhouette of mountains must include broad lines. However, in terms of the relationship be-

tween a functionalistic building and nature this cannot be accepted without raising certain objections. Creating *Green Frog*, the thermal swimming establishment in Trenčianské Teplice, Fuchs himself suggested that this problem could be addressed in a more sophisticated manner. He located the structure on the afforested southern slope on the fringe of the spa. The vast complex comprises a number of functions (swimming pool, café, wine-tavern, playground, casino etc.) and formed, with its flexible organic shapes, combinations of materials and colours and its landscaping, a perfect unity with the natural framework. This work represented the climax of organic trends in his creation. These trends began to form in his works as early as his rondocubistic period, but they came into effect more clearly in the 1930s. There is a parallel with the Berlin-Breslau group of architects representing the aerodynamic and organic stream. Fuchs met Hans Scharoun, Heinrich Lauterbach and Adolf Rading at the 1929 *Wohnung und Werkraum* Exhibition in Breslau, for which he designed the exposition prepared by the Czechoslovak Art Work Association. After having become familiar with the works of the proponents of organic architecture he felt confirmed in his creative disposition because it fostered his aesthetic/emotional conception, which was accepted with some

reserve in Czechoslovakia. Again, *Green Frog* documents the development logic of Fuchs's creations and the revaluation of older experience. So, the complex recalls the Zábřehovice Baths for instance; in the background we sense also the Morava Convalescent Home in Tatranská Lomnica, and the open winding stair in the cloak-room wing represents a variant of the motif applied by Fuchs to the City of Brno Exhibition Pavilion almost ten years before. The swimming establishment is a monumental autonomous work, one of the best executions of organic architecture in Europe, which has become a model in itself. The building met with a lively response in the specialized foreign press, which, together with a number of imitations, confirm this evaluation. Along with the Avion Hotel in Brno, Fuchs himself considered *Green Frog* – justifiably – his best work.

Reaching its climax in these two buildings, Fuchs's creative activity went on to embrace another three decades, resulting in works, of which some were also remarkable. However, from the Nazi occupation to his death his endeavours were framed by politically and socially unfavourable conditions so that he no longer succeeded in outdoing the works created in the late 1920s and in the early 1930s. The time allotted for my paper does not allow me to mention Fuchs's extraordinarily extensive work done in the field of urbanism. Being an equivalent and integral part of his architectural creation, his achievements suggest that he was able to react quickly to progressive stimuli from all over the world and adapt them, in a unique manner, to Czechoslovak conditions and tradition in this field. To end my paper, I cannot but repeat that Bohuslav Fuchs is the key proponent of the Czechoslovak architecture between the wars. In his creations he managed to synthesize the most important impulses coming from European centres of the International Style. Due to being firmly anchored in the Czechoslovak tradition, and also due to the extraordinary power of his talent, he managed to create original works that met, and still meet, with international acknowledgement. Fuchs's testimony convinces us that the regional reflexion of the Modern Movement contributed to the heterogeneity of the International Style.

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Zlín Architecture: A Lesson of Universality and Heterogeneity in Modern Movement

The Baťa-esque images of bold graphics, functionalist multistory buildings, rows of flat roof houses in park-like setting and the lofty ideals and strict work ethic of the industrialist Tomáš Baťa have been vivid in my mind and the mind of a many of my countrymen as an exemplary and extraordinary effort to meet the future of the new Czechoslovakia. The cities and architecture built by the Baťa people between the Wars have been synonymous with modernism, progress, innovation and prosperity. The company slogans, such as "Work as a collective – live as an individual", were directly applied in the planning, design and construction of its numerous factory towns all over the world. The inside-outside unified imagery of the company department stores and the service motto "Our customer – our master" were the best advertising of the inexpensive and popular footwear products made by the company. The concrete structure, glass curtain wall, tubular steel furniture of the department stores, built in the early 1930s, in capitals such as the cities of Brno, Bratislava, Prague and Amsterdam, became the company trademark.

The Company Founder

Tomáš Baťa, a shoemaker, businessman, innovator, city mayor and developer, learned how to run a company in the city

of Zlín shoe-making business, which he founded with his sister and brother, and then from the experience of working in a Ford automobile factory in the United States. Back in Zlín, his birthplace, he hired the best people to build a "City of the Century". Among them, Vladimir Karfik, who apprenticed with Le Corbusier in Paris and Holabird and Root and Frank Lloyd Wright in the US. The task was to build a liveable city for the growing employee population of the Baťa company.

The success of the Baťa company is related to the innovative economic and social policies implemented in the planning and design of the Baťa factory towns with complete services, facilities and amenities for the inhabitants. The Zlín Architecture is a case study illustrating the universality and heterogeneity in the regionalism of communities functioning today in Moravia and Slovakia as well as other locations outside of the former Czechoslovakia.

Design Innovation

The central architectural design motive was a universal factory building. Efficient, economical, durable, low maintenance – it expressed a new architectural idea of an industrial city: a city built from scratch, to work in and live a good life as well. Architectural innovation was employed to satisfy different uses and building types: manufacturing, housing, commercial, educational, hospitality, administrative, cultural and so on. The standardized construction system of Zlín Architecture provided a unified architectural language for the heterogeneous uses of various buildings and building groups in the city. Thus, within the stylistic unity of the Zlín architecture we see a variety of form and surface which expresses functions of respective building types. Red brick housing was submerged in green, school buildings designed with large windows, religious architecture made for contemplation, recreational facilities provided for leisure activities, hotels and restaurants for lodging and dining and the company headquarters landmark tower was made for the factory administration offices.

Architectural functionalism was a rejection of all the pretension of historicism. It was a reflection on the ideals of the new democratic Czechoslovak Republic and

a quest for the aesthetic language of the 20th Century captured in the slogan: "Liberty, equality, justice and brotherhood". The *Stavba* architectural magazine defined, in 1925, Modern Architecture to meet the requirements of: "Hygiene, utilization of the material strength, low cost efficiency and lightness". The modern concept of health and hygiene was not just an empty rationalization. It was a firmly held belief, that the sun's rays entering buildings through large picture windows would guarantee healthier living conditions. The flat roofs and terraces decreed by Modern Architecture were to serve as sun decks and exercise areas. The ornament and stuffy interiors were equaled to bourgeois hypocrisy, while beauty, if still acceptable at all was only valid, according to Mies van der Rohe, as the "splendor of truth". The discovery of the chromed steel frame as the primary furniture structure lead to more innovation. The pure geometry and the clarity of form delineation was achieved with the separation of supporting and supported elements. Consequently, in line with the modernist philosophy of honesty of expression and straightforwardness of design solutions, architecture was reduced to essentials.

Regional Functionalism: Architecture and Urbanism

Inspired by the new city planning principles of the Garden City of Ebenezer Howard, *Cité Industrielle* of Tony Garnier and the Ribbon City of Nikolai Miliutin, the Baťa architects set out to design a number of factory towns for the prospering and expanding company. Le Corbusier was invited to submit his ideas, too. He contributed with the urban design of the Drevnice valley linear city concept connecting the cities of Zlín and Baťov (Otrokovice). The south facing slopes of the valley were to be used for multifamily housing complexes. His urban design of Baťa city of Hellocourt in France organized large housing towers into a free natural setting. A competition for an ideal Industrial City was held in 1937. Architects Richard Podzemný, Josef Gočár and Jiří Voženilek submitted designs which made foundations for the many planned communities built at home as well as abroad.

The Garden City principles were applied to town planning of the city of Zlín as

well as the other cities developed by Baťa in Czechoslovakia: Baťov (Otrokovice), Baťovany (Partizánské) and Svit. Here, houses, civic buildings and factories finished in red brick have also been placed in the green of parks and gardens. Economy, efficiency and assembly line method have guided the design of buildings.

Daylighting, exposure to the sun and air was assured through the use of the full structural bay horizontal window. Baťa and his chief architect Vladimír Karfík introduced the 20 feet – 6.15 meters module (inspired by the American experience) for concrete structure of rounded columns and floor slabs, employing reusable steel slip forms. The exposed structural frame had been used uniformly for factory buildings, schools, hotels, office buildings, dormitories, etc. Then, the perimeter wall of the building enclosure was made out of glass and red brick. Thus the standardization of building elements helped also the coherent and unified look of the Zlín architecture.

Universality: The Zlín Architecture Abroad

The success of the Baťa company at home opened the international arena for the business expansion. Consequently, it was not just the shoe stores of the familiar imagery, logos, signage, new high tech materials and trained courteous salespeople, but entire new towns built all over the world:

Ottmuth	Germany
Best	The Netherlands
Tilbury	England
Hellocourt	France
Belcamp	USA
Malfu	Hungary
Borovo	Yugoslavia
Chelmek	Poland
Mohlin	Switzerland
Batanagar	India
Seneffe	Belgium
Veca	Italy

to mention just a few Baťa factory towns built before World War II.

The Company Achievements

At the peak production, towards the end of the 1930s, the Baťa employee count in Czechoslovakia and abroad was 30,000 workers. They enjoyed 113 days a year of holidays and vacation time, factory investment and pension plans, company banking and good wages. Most of them lived in low-rent single family houses within pedestrian access to company-built kindergartens, schools, shopping, health care facilities and sport, recreation and culture amenities. The work and life in a Baťa town was so good that every year the company processed 160,000 job applications from those who wanted to join the Baťa model family.

The company was nationalized in 1948 by the totalitarian régime in Czechoslovakia and moved its headquarters to Canada. In 1992, the Baťa Industries, Don Mills, Ontario, reported 90 factories and 5,000 shoe stores in 92 countries, with 85,000 employees and selling 1 million shoes a day. Today, the Zlín architecture is still unique, advanced and fresh looking as it was in the 1930s.

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German Influences in Slovak Architecture 1918 – 1945

After the split of the Austro-Hungarian monarchy, Slovakia became a part of the Czechoslovak Republic. Slovakia was inhabited mostly by Slovaks, but many Hungarians, Germans, Czechs and other nationalities lived here also. The inhabitants were largely Catholics, but Protestants were also very active in the field of culture, and Jews played a very important role in selected professions, including architecture. Modern architecture started appearing in Slovakia during World War I. The building of the Dr. Szontag Sanatorium in the High Tatras (1916–1925), designed by M. M. Harminc, is an example of eclectic components mixed up with modern terrace constructions. Although none of the graduates of Vienna's famous Wagner School worked in Slovakia, several constructions were created here under its influence. (J. Ritter from Vienna created the design for a headquarters building in Bratislava.) Up until the 1950s, Slovakia had not had its own university of architecture, but architects from many nations, educated at various schools, worked here. A very small number of the architects were Slovaks, and these were often not university graduates. It seems that this fact provoked experiments within a search for a national orientation (e.g. Dušan Jurkovič or Juraj Tvarožek). Slovak architecture as a whole was quite diverse, and peripherally and regionally transformed. Modern approaches were juxtaposed

with conservative ones in a natural manner. Czech and German-Austrian influences were the most important factors that affected architecture in Slovakia. The Czech influence developed from the traditional ethnic and cultural proximity, the close relatedness of languages and the existence of the new common state. The German-Austrian influence was an inevitable one because of its strength and the immediate proximity of the world of German culture. During the existence of the common Czechoslovak state, theoretical reflections emphasized Czech influence in Slovak architecture. This influence was interpreted as being the dominant one. Exports of Czech architecture inclined unquestionably to the Modern Movement and were therefore quite biased. Exceptionally, some architects adhered to traditional positions. Research of German influence was not very popular during the decades after the World War II, in the Czechoslovak Republic, political hostility together with the existence of the Iron Curtain being the main obstacles. The period of German fascism represented the darkest episode in the history of Czechs and Slovaks. This fact had an impact on the way that architecture of that period was evaluated later. At the same time, an innovative socialist ideology did not pay any positive attention to conservative historical periods. While evaluating German influence in an objective way, we must state that this influence was the most multifaceted one. On the one hand it was represented by the German population, the so-called



Sanatorium Machnáč (Jaromír Krejcar, Trenčianske Teplice, 1930) resembles a Bauhaus dormitory in Dessau (W. Gropius).

Carpathian Germans, who were focused on their own traditions and whose contacts with progressive tendencies from the Germany of the time were quite limited. On the other hand, an educated urban population looked to mature German cultural models. External cultural influences of the German-speaking region consisted of two main streams that were often in significant contradiction – the influences of Germany and Austria. An important fact was that the external influence was not unilaterally oriented towards Modernity, but also brought with it some conservative impulses. Purism in the work of Fridrich



Synagogue in Žilina designed by Prof. Peter Behrens of Berlin, 1930.

Weinwurm – a purism which can be considered a result of his German education (Berlin, Dresden) – had made its way into Slovak architecture even before it affected Czech architecture. Functionalism with its typical features of ship aesthetics appears in the designs of two rowing clubs in Bratislava (E. Belluš, J. Konrad, 1930). The duality of German influence caused by its modern and conservative orientations is documented by the architecture of housing estates, family houses and villas, which reveal principles of German rationality as well as suggestions of *Heimatsstil* (shutters, sloping roofs). Frequently, architects were not quite sure to what extent they were supposed to utilize principles of the Modern Movement. Some indications of influences of Bauhaus aesthetics can be found in works by the architect M. Scheer. A social dimension that was very important to Bauhaus policies is displayed in the construction of several complexes of small and social-housing flats. The resemblance between a Bauhaus building in Dessau and the Machnáč sanatorium in Trenčianske Teplice (by J. Krejcar) was interpreted by K. Teige as a functional relatedness. In Piešťany the architect Ľ. Weisz created a hotel and a cure house where he used similar features. In the late 1930s, the influence of expressive architecture, typical of E. Mendelsohn, appeared in Slovakia, but in a less generous gesture. In Slovakia, the early 1930s can be considered to be the period of the most powerful cultural strain between the Wars. Three architectural magazines were introduced almost at the same time. The first one was called *Forum* and was written in German and Hungarian. This was a cultivated, broad-minded magazine, launched as an architectural publication focussing on the Modern Movement in Central Europe. The magazine *Slovenský staviteľ* (Slovak Constructor) was more practice-oriented and was written in Slovak. A strongly left-wing magazine, *Nová Bratislava* (New Bratislava) concentrated on the social dimension of modern architecture and appeared only for a brief period. Architects were also involved in the activities of art-oriented clubs, the German *Kunstverein* being probably the most vocal artistic association of the time. This club brought together all the architects of note within the German-oriented cultural scene in Slovakia. Later, the *Kunstverein* initiated

the formation of an avant-garde club, *Fortschrittlichen Künstler Slovensko's*. The place of education can often (though not always) play an important role in the cre-



The Fénix Insurance Company designed by F. Weinwurm -1928, an architect educated in Germany and a pioneer of purism in the early 1920s.

ative shaping of an architect. Graduates from Czech, German (including Austrian) and Hungarian architectural universities worked in Slovakia. (Some architects also underwent their training in Paris and

Zurich.) Most architects were educated in the Czech environment, a smaller number in Germany, while the smallest group studied in Hungary. The German environment provided the most diverse choice of schools, including universities in Vienna, Munich, Berlin, Dessau, Dresden (and Zurich), and German Technical Universities in Prague and Brno. In Hungary, the only university of architecture was in Budapest. The Czech environment offered universities in Prague and Brno. It is impossible to draw definite conclusions regarding style orientations. A conscious conservative creative approach was more likely to be found in works by graduates from the universities in Munich, Vienna and Budapest, while Czech and Berlin graduates inclined to modern purist and functionalist movements. Inspired by Bauhaus, the Arts and Crafts School was created in Bratislava in 1928. Although it was merely an evening vocational school, and not a university, the school was a very important factor which influenced artistic, and consequently architectural culture in Slovakia in favour of the Modern Movement. Architecture was not taught here as a subject, but the school indirectly influenced architecture through the subjects of typography, furniture and photography. Guests from Bauhaus (Hannes Meyer, László Moholy-Nagy) also gave lectures at the school. The progressive functionalist building of the school built in 1928 was designed by J. Grossmann.



Hotel and sanatorium complex in Piešťany designed by Ľudovít Weisz, 1929.



Regional Social Insurance Office in Bratislava (Alois Balán, Jiří Grossmann, 1939) slightly resembles the expressionism of E. Mendelsohn.



Building of the School of Arts and Crafts established in Bratislava and inspired by Bauhaus (J. Grossmann), 1928.

We may now look at works of architects in Slovakia with reference to their nationality and religion. However, this categorising may be very dubious and sensitive. One group of architects were of German origin in the sense of belonging to a German ethnic group within Slovakia. Primarily this group displayed traditional Conservatism. Now it is very difficult to distinguish between German and Jewish architects who had similar cultural orientations and similar names. The Jewish group also had modern functionalism-oriented (though never extremely so) representatives such as J. Kon-

rad. More frequently these architects were conservatives who utilized modern approaches in their work (F. Wimmer, Ch. Ludwig). German-oriented Jewish architects constituted a relatively large and productive group characterised by its inclination towards both modernity (very clear in the case of Fridrich Weinwurm) and traditionalist tendencies (e.g. A. Szalatnai). In Slovakia, several remarkable constructions were built as intact imports that had no direct impact on the domestic architectural production. The Behrens synagogue in Žilina is one such case. This building is a masterwork that

unites the modern approach with a touch of monumentality and the oriental features required in synagogue designs. Works created by F. Theis, a remarkable German architect born in Bratislava, constitute a special chapter in Slovak architecture. He worked in Vienna his entire life and continuously collaborated with H. Jaksch, a Sudeten-born German architect. Nazism was not manifested in Slovakia in its main gigantic monumental dimensions. However, it modulated the verve of architectural modernity and returned to historically proven values (sloping roofs). Like any forced ideology, nazism also brought a lapse of creative cultural and spiritual climates and consequently introduced drab architecture. The Slovak environment is characterised by its peripheral melting, with a reliable and lively connection to the most important centers of culture. The German influence was the most diverse and powerful one, though it faced significant competition from a strong Czech influence. An internal analytic mapping of influences is only possible as a demonstration of the core of the problem. However, fused impulses and a heterogeneous environment were more important in Slovakia than any purity or homogeneity. The Modern Movement made its way into Slovak architecture while remaining in touch with functional conservative values. Thus, its weaknesses were revealed and helped create heterogeneous humanized architecture.

Traditional works by Sigfried Theis, a remarkable Austrian architect born in Bratislava, from the 1920s (a Protestant church in Bratislava-Prievoz, 1924).



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Modern Movement and National Identity: The Predicament of the "Cubic House" in Turkey in the 1930s (1)

The 1930s mark the dissemination of the Modern Movement beyond Europe, not only westward to England, the United States and Latin America, but eastward to many countries from Turkey to Japan. The history of this eastward dissemination – the history of these "other modernisms" beyond the so-called "western world" – has been rather neglected not only by the official historiography of the Modern Movement (the locus of which is in the west), but also by the historiography of, for example, Turkish, Japanese or Indian architecture – the so-called "area studies" (the locus of which is mostly in the past, anterior to modern transformations). For western historians of the Modern Movement, at least in the English-speaking world, these other modernisms are merely the exportation of a primarily European discourse without anything interesting to offer (perhaps with the exception of anything Le Corbusier proposed or built in exotic countries from Algeria to India). On the other hand, for the architectural historians in area studies, the interest in the modern is similarly lacking, albeit for different reasons. For them too, the Modern Movement does not merit much attention outside the western world because, they maintain, it is an alien dis-

course imposed upon indigenous cultures by western or western-educated architects.

The theoretical premise of my interest in 1930s modernism in Turkey is to suggest that, contrary to these reductive historiographic positions, these "other modernisms" beyond the western world are constituent elements of the modern history, culture and heritage of these countries; that they cannot be understood simply as an extension of the European developments and that new theoretical and methodological tools are necessary to study them in their own cultural, social and political context. One can begin to talk about the dissemination of the Modern Movement in exotic and unfamiliar contexts outside Europe from at least two different angles. From one angle, one can look at the personal stories of immigration whereby modernist European architects, by choice or by exile, found themselves in unfamiliar terrains, bringing many precepts of the Modern Movement with them but also – and this is very important – rethinking what the Modern Movement is all about, in the light of their encounters with the regional and vernacular traditions of these lands. Bruno Taut in Japan and subsequently in Turkey, or Eric Mendelsohn in Palestine are only two of the most prominent of such stories central to a critical and unorthodox historiography of the Modern Movement.

From the other angle, which has less to do with the presence of western architects, than with the receptiveness of the local context to modernism, we find a historical moment in which the progressive discourse of the Modern Movement – especially its claims to scientific and universal rationality – appealed not only to the young architects of many new nations in the making, but to the political régimes and nationalist élites of these countries under whose sponsorship a distinctly modernist architectural culture and profession flourished. Although by 1930 the initial critical force of the modernist avant-garde had already eclipsed in the west, giving way to the official discourse and formal canons of the Modern Movement, its "revolutionary" and progressive rhetoric was still perfectly suited to represent the aspirations of a range of countries from Zionist pre-state Israel to post-colonial India to Kemalist Turkey in their quest for modernization and nation-build-

ing. In these contexts, the Modern Movement could easily be sanctioned as the appropriate expression of an utopian and idealized future because, in its abstractness devoid of historical associations with Christian Europe, it was equally alien in any context and hence equally capable of representing any country's desire for a fresh start to rewrite her history.

In Turkey, by the time the Modern Movement or the New Architecture (*Yeni Mimari* as it was called in Turkish) officially "arrived" in 1930, the making of a secular modern nation over the ruins of the Ottoman Empire was well underway. The Republic, proclaimed in 1923 under the leadership of the nationalist hero Mustafa Kemal, was trying to forge a new national identity dissociated from an Ottoman/Islamic past. Throughout the late 1920s, a series of institutional reforms were implemented under the auspices of Kemalism to transform the society along western lines, regulating every aspect of social and private life: from the introduction of European clothes, hats etc. to the replacement of the Arabic script with the western alphabet. Ankara was constructed literally from scratch, as a modern capital – as the official showcase of modernity and New Architecture. In the official culture of the Republic, the juxtaposition of a particularly negative portrayal of the old ways (backwardness, unhealthiness, imperial associations etc.) with the positive qualities of the new (progressiveness, healthiness, democracy etc.) was the primary means through which the new régime sought legitimacy.

It is in the context of this radical "civilizational shift" that the term "cubic house" (*Kubik Ev*) was introduced into common parlance, and the image of a modern house or villa began to replace that of the old *konaks* as a major signifier of refinement and civilized living among the élite. Although the transformation of upper-class domestic culture and family life along European models predated the westernizing reforms of the Kemalist Republic by at least half a century, the 1930s mark the emergence of a distinctly Republican discourse on the modern house – one which sought a more complete break with tradition than anything else before it. The im-

age of the “cubic house” was particularly suited to the new concepts of marriage, domesticity and the nuclear family that the Republic sought to foster in its modernization program. Initially designating the aesthetic canons of the Modern Movement – flat roofs, wide terraces and cantilevers, simple cubic volumes with round corners and/or projections, the characteristic round windows, continuous window sills and balconies and an overall absence of decoration – “cubic house” soon became a generic word symbolizing the new lifestyles emulating European models.

Even a cursory glance at the popular publications and “illustrated family magazines” of the time (2) reveals that the modern house and domestic interior – just like the image of modern Turkish women in public space and public life, was one of the major symbols and central preoccupations of the Kemalist “revolution”: it was posited as a progressive agent of civilization with a pedagogical mission to educate the entire nation in matters of modern living. The words “modern” (*modern*) and “contemporary” (*asri*) were used synonymously to designate all the novelty, progressiveness and desirable qualities of the new culture of living in western-style houses and apartments with their new concepts of plan and spatial layout replacing the functionally undifferentiated rooms of traditional wooden houses. For example, “A Cubic House” from Germany was featured, in the “Practical, Economical and Healthy Houses” series of *Muhit*, a weekly family magazine, commenting that “today, architecture has found its true meaning in “cubic” ...[which], while looking simple and plain, represents the entire aesthetic and scientific progress of our age.” (3) Throughout the 1930s the practice of publishing model houses with plans, elevations and specifications flourished in these popular publications, perhaps best exemplified by the “house” (*Ev*) section of the popular Republican weekly *Yedigün*, which not just reprinted from western magazines, but started publishing the designs of young Turkish architects as well.

It needs to be clarified here that, in the context of Turkey’s radical civilizational shift, architectural education too was transformed in the 1930s, from an earlier academic tradition modelled after the Beaux-



1930s apartment building in Taksim, Istanbul, Architect: Seyfi Arkan, *Arkitekt*, v.9, n. 5/6, 1939, p. 102

arts to a German/Central European modernism. The two successive heads of the architectural section in the Academy of Fine Arts in Istanbul – first Ernst Egli and, after 1936, Bruno Taut – were both instrumental in this transformation, along with many other German, Swiss and Austrian architects (including Clemenz Holzmeister, Martin Wagner, Martin Elsaesser and Paul Bonatz) invited by the Kemalist régime to undertake the monumental task of nation-building,

both literally and metaphorically. The construction of Ankara by these European architects – especially government buildings, schools, railway stations and post offices – is relatively well-known in the architectural culture at large. My focus here is the lesser known residential stock of the 1930s – the modern villas and apartments designed by young Turkish architects who graduated from the Academy of Fine Arts as committed modernists. Without access to the larger public commissions that typically went to their European teachers, they turned their attention to residential architecture. For them, the architecture of the house (*Mesken Mimarisi*) was modern architecture par excellence, embodying the democratic potential of the new era and the legitimacy of the professional architect, whose realm of expertise and involvement, they argued, spanned the entire scale from urbanism to domestic interiors and design of furniture. In 1931 they started publishing their professional journal *Mimar* (renamed *Arkitekt* a few years later), featuring the writings and work of their most prominent members such as Seyfettin Arkan, Zeki Sayar, Abidin Mortas, Aptullah Ziya and Bekir İhsan. Their work constituted the most notable examples of the three basic types of modern residential architecture in Turkey in the 1930s: the large urban apartment buildings, the smaller multi-unit rental apartments (*Kira Evi*) or the single-family



1930s small house with rental units, Erenköy, Istanbul. Architect: Abidin Mortas, *Arkitekt*, v.6, n.9, 1936, p. 249



1930s villa in Baglarbasi, Istanbul. Architect: Munci Tangör, *Arkitekt*, v.9, 1939, n. 3/4, p. 64

houses or villas in a garden. (Fig. 1, 2 and 3) The latter was, without doubt, the ideal paradigm of the cubic house in Republican culture, celebrated for the closeness to nature, sunlight and healthy living so cherished in the modernist discourse of the 1930s.

The writings published in *Mimar/Arkitekt* bear testimony to the fact that Le Corbusier's ideas and especially his canonical Villa Savoye of 1929 continued to be a source of inspiration for this entire generation of Turkish architects. His writings, especially the polemical pieces about "house-machines", were translated in both professional and popular publications alike, and analogies were drawn between the Kemalist revolution (*İnkılap*) in Turkey and the "revolution in architecture" started by Le Corbusier. References to the Corbusean themes of sunlight, air and ventilation were especially frequent and, as everywhere else in the heyday of the Modern Movement, in Turkey too the themes of health, hygiene and comfort were the most central to the modernist discourse about the house. Health and hygiene was almost a Republican obsession which underscored the binary opposition set up between a discredited past and an idealized contemporariness. An article in 1934 observed: "whereas moonlight reigned in the old houses, the rule of the sun is beginning in the glass-enclosed buildings of today. Our spiritual welfare is intimately connected to a house flooded with light, comfortable chairs and sofas, a garden to rest our tired eyes in and

a bathroom devoid of illness-causing germs". (4) At the same time, the preoccupations of socialist German architects with minimal dwellings and serialized, rationalized production were also highly appealing to the populism and anti-bourgeoisie sentiments of nationalist Republican architects. Bekir İhsan's "Small House Projects", emblematic of this simplicity and austerity embodied by the word "cubic", visualized prototype houses for a range of family sizes and incomes. (5)

The 1930s issues of *Mimar/Arkitekt* remain the primary source of historical doc-

umentation of modern residential architecture in early Republican Turkey, although by no means the only one. Popular publications are also invaluable sources, such as the "Beautiful Houses" (*Güzel Evler*) section of the Republican weekly *Yedigün*, in which photographs of 1930s houses and villas, mostly from Istanbul, were featured as "examples for the rest of the nation". In Istanbul, especially in the fashionable Bosphorous villages and Anatolian suburbs (Bebek, Arnavutköy, Moda, Sütlüce and Erenköy), cubic-looking villas and houses proliferated rapidly in the 1930s, most of them to be demolished in the post-1950s period. In Ankara modern villas were built in the new districts of Yenisehir and Cankaya to house the bureaucratic, military and professional élite of the young Republic and these were featured in the official publication of the Republic, *La Turquie Kemaliste* as proud manifestations of the modernity of the new nation. The larger apartment buildings of the 1930s, mostly in the busy and cosmopolitan sections of Istanbul (Taksim, Harbiye, Sisli) have survived relatively well to this day. (Fig. 4) The smaller houses and villas, on the other hand, if not torn down and replaced after 1950, were unrecognizably modified or simply left to deteriorate (Fig. 5), perhaps with the exception of only a few such as Ernst Egli's villa for the Devres family in Istanbul. While an extensive study and documentation of the residential architecture of the 1930s is yet to be undertaken, I would like to offer two arguments that may serve as a theoretical premise to such studies and may help to frame the Turkish experience in the context of the historiography of the Modern Movement at large.

1.

The first and more obvious of these observations is that even if the intellectual resources and architectural models of Turkish modernism were imported from the west in the 1930s and even if the discourse on the modern house marked a radical rupture with traditional building practices, the actual houses of the 1930s did not exactly look like the canonical models of the Modern Movement in the west and, furthermore, constrained by the technical and cultural realities of the country, they did not transform the lives of the majority of the population. The difficulty in characterizing



Tünel Apartment Building, Istanbul, 1936 as it stands today. Architect: Adil Denktas, photo by Ömer Kanipak

these houses as "Modern Movement" contests the myth of a homogeneous and canonical Modern Movement and complicates the picture beyond reductionist labels such as "cubic", "international style" etc. In fact, in many cases one can find more that is "classic" or "art deco" about them than is Modern Movement as we understand it in the Corbusean sense. This is perhaps partly to be explained by a rarely studied aspect of the historiography of modern Turkish architecture, namely the inevitability of a period of overlap and transition, rather than a sharp break with the earlier academic education of the architect. Certain aesthetic concerns in the composition and detailing of facades of 1930s buildings frequently suggest a classically minded (or classically trained) architect "trying to be modern" as the culture of the period demanded. Yet detailed monographs of architects and their training are still to be written.

At the same time, the canonical concept of the Modern Movement was more conspicuously contested by the material realities of the country. The building industry was in a very poor and primitive condition, still largely based on traditional craftsmanship in masonry, bricklaying etc., and even then there was a serious shortage of good craftsmen in the aftermath of decades of warfare. With only a few cement factories in all of Turkey, no production of iron and steel until 1937 and the very high cost of importing building materials and transporting them across the country, reinforced concrete was a precious material often limited to floor slabs and cantilevers. Brick walls limited window dimensions to smaller openings, ruling out the possibility of entire "glass walls" or long band windows that are the major tropes of modernist aesthetic. Technical difficulties of insulation and maintenance dramatically reduced the feasibility of flat roofs in favor of more traditional pitched roofs and most of the 1930s modern houses were finished in a cruder greyish or pinkish plaster rather than the slick white surfaces of the Corbusean aesthetic. Interiors were not very different as far as the discrepancy between the discourse of the modern house and the reality is concerned. Architects produced sketches of modern interiors, geometric furniture designs, Bauhaus-inspired lighting fixtures,

slick, glossy surfaces and the inevitable terraces, spacious halls for dancing and cocktail parties. (Dancing, incidentally, is another distinctly early Republican preoccupation in Turkey and an ideologically charged symbol of the official westernization program in the Kemalist era). In reality, very few Republican interiors matched this image and in many cases, highly eclectic, bulky and ornamented period furniture cluttered the interiors of the most recently built "cubic" houses of the 1930s.

In both professional and popular publications, all of the modern amenities, especially hot water, heating, proper ventilation and electricity for lighting and household appliances (even electric beds) were exalted not only as the preconditions of civilized modern living, but also as the new means of saving the women from household drudgery – from the endless toil of laborious cooking, cleaning, washing etc. that took place in traditional houses. However there was also a strong nationalist emphasis on the nuclear family, especially on motherhood as a national duty and on the family home as the sacred heart of national regeneration – not unlike the coupling of modernism with nationalist discourse in fascist Italy at about the same time. Given the cultural and societal sanctions against the idea of women working outside the home (even when Kemalism officially endorsed and encouraged it), the images of the technically equipped, ultra-efficient, lab-like kitchens reproduced in women's magazines were devoid of their original context in Europe. In the absence of a modernist mass culture and widespread middle class bourgeoisie life, such minimal and efficiency-oriented designs were far from reflecting the spatial demands of the still fairly large wealthier households of the Republican period (often with one or two members of the extended family and domestic servants living in the same household), or for that matter, of Turkish eating habits and culture of labor-intensive food preparation.

Finally, in spite of architects' constant emphasis on the democratic nature of the modern house and their references to the accomplishments of *Das Neue Frankfurt*, any significant experiments with large-scale housing schemes or with rationalized and industrialized housing production was

conspicuously absent in Turkey, reflecting the inadequacy of the material resources of the country, the primitiveness of the building industry and, perhaps most importantly, the priorities, politics and policies governing architectural production under a nationalist, centralized government. Even when all the built examples are put together, modern houses of the 1930s constitute a very small residential production of essentially "custom-designed" and "custom-built" villas and apartments for a handful of Republican élites.

2.

The second observation that results from a survey of the architectural culture of the 1930s is that from its inception, the embracing of the Modern Movement or New Architecture was fraught with difficulties and contradictions and that modernism and nationalism, far from being mutually exclusive categories, were in continuous tension and dialogue throughout the 1930s, and in the process, what is "modern" and what is "Turkish" were constantly redefined to accommodate each other.

To begin with, Turkish architects of the Republican era were caught within a profound dilemma: i.e. the problem of portraying (and legitimizing) the Modern Movement as a recognizable and official symbol of the Kemalist revolution (hence turning it into a stylistic/formal category) and at the same time presenting it as a rational, critical and *anti-stylistic* approach to architecture. For example, in a radio program titled "Cubic House and Comfort" aired in 1939, architect Behcet Unsal voiced the same basic modernist polemic that progressive architects in many countries adopted as a way of linking modern forms with a universal, rational and historically inevitable modern zeitgeist, the spirit of which, he claimed, Kemalist Turkey was just beginning to capture. "Our large wooden houses with spacious halls are no longer appropriate for the machine age with its changes in mentality and lifestyle from which", he argued, "...the necessity arises of moving to a small home or an apartment with corner windows and round projections." (6)

That there was no direct automatic link between social and technological transformations of the modern age and the aesthetic precepts of the Modern Movement,



Anonymous 1930s house as it stands today, Moda, Istanbul, photo by Ömer Kanipak

or that Turkey in the 1930s was far from being anywhere near "the machine age" did not change the fact that modern form was portrayed as a visual symbol of the success of the Republic in dissociating the country from "oriental malaise". This Republican obsession with exterior form – the tendency to reduce modernity to modern form (and to reduce the idea of "civilization" to the western norm and forms of civility) was, after all, at the center of Republican reforms epitomized by the so-called "hat revolution" of 1925 (which replaced the fez with the western-style brimmed hat). Although architects expressed on every occasion their uneasiness with the stylistic connotations of the terms "cubic" and "international style", and argued that modern architecture is in fact national architecture *par excellence*, because it is, by definition, the most rational and appropriate response to the specificities of site, climate, topography, function and program, the dilemma remained unresolved. Whether "modern" was a formal category, or simply an attitude to design remained ambiguous throughout the decade.

By the end of the 1930s, the architects' claim that modern architecture is by definition "national" was increasingly more unconvincing and defensive, confronted with rising nationalist sentiments. Instead, the corollary argument was proposed, i.e. the argument that "Turkish architecture is, by definition, modern." Many architects, most notably Sedad Hakki Eldem, proceeded to

read the traditional Turkish house in distinctly modernist terms and both Egli and Taut encouraged the study of the vernacular houses as lessons in rational construction, simplicity, utility and honesty. (7) Sedad Eldem's characteristic modern villas of the 1930s, inspired by the plan types and facade compositions of the timber frame traditional houses, are the most paradigmatic manifestations of a central theme in the historiography of modern architecture at large: that of the appropriation of the vernacular as the basis of a nationalist modern architecture. (8) (Fig. 6) The "Turkish House" paradigm of the late 1930s and

the 1940s marked the culmination of a decade of uneasy cultural confrontation with the "cubic house" which was at the center of mixed feelings and heated debates even in the early years of Kemalist reforms, before it became increasingly more suspect in the passionately nationalist climate of the 1930s.

Nothing illustrates the profound dilemma of the Kemalist project of modernity (a project of double-negation: rejecting both the traditional past of the country as well as the image of a cosmopolitan, capitalist and hence anti-nationalist westernized society) than the fact that the same magazines that published model designs for cubic houses and interiors also published highly critical assessments by Republican intellectuals, of the values and lifestyles that the term "cubic" came to represent, especially in contrast with the now idealized and nostalgic images of traditional neighborhoods as the antitheses of cosmopolitan urban life. In a very famous 1934 novel by the prominent Republican intellectual and novelist Yakup Kadri Karaosmanoglu, a cubic house was described as follows: "...the first house with glass corners, lacquered doors and punctured ceilings that accommodated hidden electrical installations...Couches like dentists chairs, seats like operation tables, sofas resembling the interior of automobiles, closets like grain storages, display windows...naked walls, naked floors and a clinical gloss on everything." (9) What is



Agaoglu House, Istanbul, 1936-37. Architect: Sedad Hakki Eldem, *Arkitekt*, v.8, n. 10/11, 1938, p. 277

most striking here is how the same architectural qualities of shiny, hygienic surfaces and modern furniture could be read as the indicators of progress and contemporaneity idealized by Kemalism, and simultaneously as symptoms of alienation, coldness and sterility characteristic of cosmopolitan modernity in its most negative sense.

Similarly, in another famous novel by the woman novelist Halide Edip Adivar, a certain cubic villa ("*kubik palas*") was described in the following manner: "it attracts the eye and, according to some, disturbs it. Its style, as evident from the name, is cubic. It has all sorts of arbitrary shapes, projections and set-backs, and in the most unexpected places, strange balconies covered with glass. One gets the impression that the architect conceived this building during a fit of malaria." (10) The last sentence, suggesting "cubic" to be a pathological phenomenon, comes very close to the nationalist attacks on avant-garde art in Germany at the time, some of which found echoes in the editorials of Peyami Safa in Turkey. In "Cubic in Turkey and Abroad", Safa characterized cubic painting and architecture as "an aggressive counter-cultural tendency, born out of the post-war hysteria and cut off from any ties to habit and tradition" - adding however, that it was already left behind in Europe. Whereas in Turkey, he lamented, cubic was still "a disease" more destructive than the fires to which the wooden houses succumbed in the past: "in Turkey, cubic is the name of the squat, flat, formless building with tiny rooms and low ceilings, constructed with cheap mortar and its wooden parts damaged by an uncontrolled and uncalculated amount of excess sunlight." (11) In the same vein, another prominent Republican intellectual Huseyin Cahit Yalcin talked less about the architectural properties of the cubic than the larger and more profound "homeless-

ness" of modern living, lamenting the fact that "we left behind our old houses, the repository of our family histories and memories, in exchange for the convenience of modern apartments in which we are destined to be miserable...In this contemporary civilization, apartments have turned us into nomads without home and hearth." (12)

The strong ideological charge attached to the Modern Movement in general and "the cubic house" in particular (whether as the symbol of progress or of alienation) assumes a direct and deterministic link between architectural form and political régime - a link that is continuously contested by critical historiography. This tendency to link form with politics in an unequivocal way, (coupled with the current debates in Turkey whereby the Kemalist project of modernity is under increasingly critical revision) (13), still poses a significant challenge today for the appreciation and preservation of the modernist residential buildings of the Kemalist era as cultural and historical artefacts.

NOTES

- 1 This paper is a shorter and modified version of my "Living Modern: The Cubic House in Early Republican Culture" published in *Housing and Settlement in Anatolia: A Historical Perspective*, Istanbul: Turkish History Foundation, 1996, pp. 313-328 in conjunction with an exhibition for the United Nations Habitat II Conference in Istanbul, June 1996.
- 2 Among the magazines surveyed here are *Muhit*, *Modern Türkiye Mecmuası*, and the popular Republican weekly *Yedigün* through their 1930s issues.
- 3 Samih Saim, "Kubik Bir Ev" (A Cubic House), *Muhit*, v.1, n.10, 1929, p. 786
- 4 "Gunesin Saltanatı" (The Reign of the Sun), *Yedigün*, v.2, n.39, 1934, p. 11.

5 Bekir İhsan, "Kucuk Ev Projeleri", (Small House Projects), *Mimar*, 1933, pp. 17-18 and 53-54.

6 Behcet Unsal, "Kubik Yapi ve Konfor" (Cubic House and Comfort), *Arkitekt*, v.9, n.3-4, 1939, p. 60.

7 On the appropriation of vernacular forms see Gulsum Baydar Nalbantoglu, "Between Civilization and Culture: Appropriation of Traditional Dwelling Forms in Early Republican Turkey", *Journal of Architectural Education*, November 1993, pp. 66-74 and also Sibel Bozdoğan, "Vernacular Architecture and Identity Politics: The Case of the Turkish House" in *Traditional Dwellings and Settlements Review*, v. 7, n. 2, Spring 1996, pp. 7-18.

8 On the architecture of Sedat Hakki Eldem see S. Bozdoğan, Suha Ozkan and Engin Yenil, *Sedat Eldem: Architect in Turkey*, Singapore: Concept Media, 1987.

9 Yakup Kadri Karaosmanoglu, *Ankara*, 1934 (Istanbul: İletişim Yayınları, 1981, pp. 124-125).

10 Halide Edip Adivar, "Tatarcik: Büyük Milli Roman", (Tatarcik: Great National Novel), *Yedigün*, v.12, n.305, 1939, pp. 12-13.

11 Peyami Safa, "Bizde ve Avrupa'da Kubik" (Cubic in Our Country and In Europe), *Yedigün*, v.8, n.188, 1936, pp. 6-7.

12 Huseyin Cahit Yalcin, "Eski İstanbul" (Old İstanbul), *Yedigün*, v.9, n.219, 1937, p. 5 and "Ev ve Apartman" (House versus Apartment Building), *Yedigün*, v.11, n.265, 1938, p.5.

13 On this critical rethinking of the Kemalist legacy see S. Bozdoğan and R. Kasaba eds. *Rethinking Turkish Modernity and National Identity*, forthcoming from the University of Washington Press, 1997.

Tracing German-speaking Jewish Architects

Shortly after the National Socialists took over power in January 1933, a considerable number of Jewish architects packed up their belongings and left Germany.

Architects such as Alexander Klein (1879-1961), Erich Mendelsohn (1887-1953), Adolf Rading (1888-1957, married to a Jewish wife), Ernst Freud (1892-1970), Harry Rosenthal (1892-1966), Fred Forbat (1897-1972), or Rudolf Fränkel (1901-1974) – just to mention few well-known Berlin Architects of the time – were refugees of “the first hour”. They were members of the Association of German Architects (BDA), of the Association of Architects and Engineers (AIV), of Deutscher Werkbund (DWB) or of the Academy of Fine Arts.

These and many other Jewish architects were known for their contributions to modern architecture in Germany in the 1920s. Their buildings were referred to in periodicals and served as good examples of the new style, which in Germany became known as “*Neues Bauen*”. Leo Adler (1891-1962), also a refugee of the “first hour” and author of “*Wasmuth’s Lexikon der Baukunst*” (1929-1931), in his book “*Neuzeitliche Miethäuser und Siedlungen*” (1931) highlighted the modern buildings of architects later to be persecuted, such as Bruno Ahrends (1878-1948), Ella Briggs (1880-?), Ernst Moritz Leser (1882-?), Erwin Gutkind (1886-1968), and Rudolf Maté (of unknown destiny).

Owing to the drastic change in the building and construction industry after the First World War, a great number of new architectural offices were founded. If and when a Jewish architect took on a partner, both were for the most part Jewish. For example: Oskar Kaufmann and Eugen Stolzer, Arthur Korn and Siegfried Weitzmann, Alfred Wiener and Hans Jaretski in Berlin, Oscar Bloch and Ernst Guggenheimer in Stuttgart and Fritz Block and Ernst Hochfeld in Hamburg. Their clients were often Jewish as well, and most of the time their building contractors, too.

Since they belonged to the social class of so-called assimilated Jews, this phenomenon proves that they were segregated from the rest of German society even during the “Golden 1920s”. Nevertheless racial prejudice and anti-Jewish propaganda was heard of before 1933. Thereafter Hitler came to power and the National Socialists began at once to build up their dictatorial regime and to racially restructure virtually all areas of public life.

On November 1st, 1933 a law was put into force, signed by Goebbels, Minister of Propaganda, and Chimit, Minister of Economy, which regulated the membership of artists in their professional organisations. The law consisted of 33 paragraphs, the first declaring the installation of six “Reich’s Culture Chambers”: music, fine arts, theatre, literature, press, and broadcasting. No Jew was allowed to be a member. The above-mentioned associations of architects - BDA, AIV and DWB - were disbanded and all members except the Jews, were transferred to the chamber of fine arts.

According to §3, the “Reich’s Culture Chamber” had the following task: “Under the leadership of the Minister of Propaganda, and in cooperation with the members of all its branches of activities, to direct German culture in full responsibility for the people and the state (Reich), to control the economic and social aspects of the “Kulturberufe” (professions concerned with cultural aspects), and to balance all efforts of the incorporated groups. The Minister of Propaganda is entitled to command special duties or functions to be assigned to the “Reich’s Culture Chamber” and to the single chambers of which it is composed.”

As to the membership of the chambers, the law states (§ 4): “Whosoever participates in the creation, the reproduction, the mental or technical treatment, the distribution, the conservation, the marketing or the negotiation of marketing of cultural goods, this person must be a member of one of the single chambers, specifically the one appropriate or responsible for his special activity.” According to this law, “cultural goods” are defined as (§ 5) “any product or work of art, as soon as it is distributed to the public”. Another paragraph concerning the membership in the chambers ruled (§ 10):

“Admission to one of the departments of Reich’s Culture can be refused, or any member can be excluded as soon as there are facts existing which allow the conclusion that the person in question is not capable of performing certain tasks because he or she is not responsible or suitable enough.”

The President of each Culture Chamber was empowered to impose a disciplinary penalty against anybody who was not a member of the chamber and nevertheless exercised one of the professions in question (§ 28). From September 1935 on, when the “Laws for the Protection of German Blood and German Honor” were enacted, it was also decreed that “Jewish half-castes and persons married to Jews” be excluded from the chambers. On June 8th, 1938, by order of Goebbels, an alphabetical register of all Jewish artists with their addresses and the degree of “*Verjudung*” (Jewishness) was also officially approved. Consequently a systematic persecution of all artists still staying at that time in Germany could be achieved efficiently.

Among thousands of Jewish artists, there were 322 architects, 11 of them women. The total number of persecuted architects rises to about 450 after adding the names of those who had already escaped from Germany and were no longer registered. At least 17 of them were women. The list reveals that more than 60 % of the persecuted architects lived and worked in Berlin before 1933. About 4 % of them made their living in Frankfurt am Main, and about 3 % and 3,5 % in Breslau and Hamburg respectively. In Munich, Stuttgart, Düsseldorf and Cologne, as well

as in 40 other German cities, there were – for the time being – one or two architects who were struck by this *“Berufsverbot”* (inhibition of profession).

Research into the lives of the 450 persecuted architects produced further information only on 190 persons, out of which 135 were lucky enough to escape and to survive in the countries to which they emigrated; 52 were deported by the National Socialists and murdered in the concentration camps. Two of them survived the concentration camps, and one more survived in hiding for the duration of the war.

The destinies of about 260 architects could not be cleared up until now. The architects escaped in various directions all over the world. Those who first settled in countries such as France or Spain in the West, Hungary and Romania in the East or Italy in the South were forced to escape again when the Germans invaded these countries. After the Second World War broke out the number of those countries ready or willing to accept Jewish refugees diminished continuously. Palestine at that time became a secure shelter for 115 architects – that is about 60 % of the ones seeking refuge (see bibliography); 40 of them (21 %) succeeded in finding shelter in England, and 27 (14 %) in the USA. In remote countries such as South Africa, Argentina, Australia, Chile, Canada, and New Zealand, and last but not least in close-by Sweden, one or two persecuted architects found a place of refuge either for a short or for a longer time. The majority lived nomadic lives.

Mendelsohn, after his escape, lived and worked in England, then in Palestine and finally in the USA; Fred Forbat, who was of Hungarian origin, first fled to his home country. When the Germans invaded Hungary, he escaped to Sweden, where he was able to carry on his work. None of his family survived Auschwitz.

Ernst Freud, son of Sigmund Freud, who was born in Vienna, had practised for 14 years in Berlin and emigrated to England.

Rudolf Fränkel, who was born in Neisse-Silesia and had finished his studies at the present Technische Universität Berlin, escaped to Romania; after the outbreak of the Second World War he continued his flight to England and migrated further on to the USA in 1950. Fränkel left behind private and public buildings of the Modern Style in three different countries. In the USA he was made professor of architecture. Adolf Rading lived in France for three years before migrating to Palestine-Israel. After 14 years of productive work representing the Modern Style of building in Haifa, he left the country and moved on to England, where he continued his architectural work.

Shortly before Italy entered the Second World War, Bruno Ahrends succeeded in escaping from Italy and moved on to England. After the end of the war he moved on again to South Africa. His numerous apartment houses in Modern Style, which he had built during the 1920s in the Wilmersdorf, are still characteristic for Berlin.

Those architects who dedicated themselves to the New Style and enthusiastically made their contributions to modern architecture in Germany and who succeeded in escaping persecution and practising their professions in exile – these men and women influenced and invigorated modern architecture in the remotest parts of the world.

Our **“Association for research into the lives and works of German-speaking Jewish architects”**, a registered society in Berlin since 1992, aims to rediscover a modern architectural heritage, conceived by persecuted architects in Germany, which today is virtually forgotten as a result of the Holocaust.

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Le Corbusier in La Plata: The Curuchet House – Urban Insertion and Transcendental Message

Analyzing this subject from an existential point of view, we come encounter two simultaneously associated facts in an individual and collective urban experience. I refer to the code that expresses the city as physical support of the dynamic socio-cultural reality and to the presence of the house as a singular message within this, and answering to particularized necessities.

The urbanistic scheme of the city of La Plata symbolized the ideatum of the progressing determinism of the second half of the 19th Century. Its antecedents are to be found in the revolutionary urbanism (Boullée, Ledoux), and the technical and hygienic contributions resulting from the deterioration produced by the industrial revolution. Thus the Baron Haussman initiates his urban essay of formal and illusionist predetermination with a clear and widely broadcast ideological and aesthetic message and pleasure in the politico-cultural panorama at the end of the Century. Paris is the most modern city of the 19th Century and the model -first- for other European cities and -subsequently- for the rest of the world.

From this point of view, the cultural answers of the 20th Century begin with var-

ious messages adopting a hard critical tone towards the prevailing environment. The Italian futurists praise verticalization and circulations as a symbol of the new machinist society, a Utopia that is the reality of today. The Russian constructivists expressed symbolic aspects of architecture as container of a new egalitarian society, its articulation not exclusively of constructive allegories, but a shared concentration of actions (discussion and resolutions, administration, information and publicity in a continuous revolutionary dynamic).

Le Corbusier states in his theoretical proposal a social and architectonic determinism, with a certain degree of morphological authoritarianism, which gradually veers towards the full humanization of architecture as sensorial experience of the social environment. The articulation is the "habitation unit" initiated with the House DOMINO, taking shape in Marseilles: individual to collective answer, house-building to city-building.

In the form of the stated circumscription and in terms of the multiple variables in the continuous evolution of the cities; of the dwelling as total expression of privacy; and of our role as architects and protagonists within the reality, we shall analyze a case of intervention from the ideatum of the Modern Movement in a city with an important intellectual ethos. We expose the values involved, the disturbance and the outcome of the code-message interaction.

When in 1918 Charles Edouard Jeanneret together with the painter Amadée Ozenfant edited the manifest of purism "*Après le cubisme*" and in 1920 created the magazine *L'Esprit Nouveau*, they expressed a new spirit that covered all forms of art expression: painting, sculpture, architecture, literature, theater, cinema, etc. It was essential to overcome chronological time in order not to lag behind the takeoff of the new century. And this is what the autodidactic Jeanneret did: adopting the name of Le Corbusier and a passionate position in architecture, he transforms himself through his untiring empirical and polemical labour into the master-leader of the Modern Movement.

With reference to the dwelling he said that "the house has to be the life-container",

and sought throughout his vast work the subjacent humanization at the five points, those essential ordinances of his architecture that he explores from the DOMINO houses up to the purist stage of the 1920s: columns or pilars (pilotis), free plan, free facade, horizontal windows and garden terrace. The sun, the green and the pure air provide the propitious frame for his architecture, which through technique – "the base of lyricism" – adopts form, poetry and significance: "the correct and magnificent wise settings of the volumes under the light".

This Le Corbusier, who is labelled as revolutionary for criticizing the predominant academic order of his time, will vehemently answer: "I have had only one master: the study of the past." There we have the key to understanding his work and transcendental victory.

The city, as one of the most essential inventions of human civilization, simultaneously reflects the space and cultural coordinates of a certain society. Its physical structure is a product of a relationship between the natural medium and the resources and ideas that characterize that society. The city of La Plata was born towards the end of the 19th Century as the product of political, social and economic conflicts between the leading class of this young country. It has the peculiarity of being a unique example of Latin-American urbanism projected and built in a century of great discoveries and technical inventions, of geopolitical movements at international level shaped by economic and maritime empires, of social upheavals dignifying human life in the growing and already dehumanized cities, and of cultural splendour irradiated by the Academies of Fine Arts.

The cultural influence of the European trends in our country is assimilated by the ideologists and executives of the new provincial capital. Neoclassical buildings with revivals of highly academic quality are implanted on an urban design of equal composition consisting of:

1. the superposition of two geometric traces: the first a board integrated by squares of 120 m per side with avenues every six squares, and the second shaped by diagonals.

2. A civic axis, which is also the axis of the principal composition materialized by Avenues 51 and 53, where the principal public buildings are located: Town Hall, Legislature, theater, municipality, cathedral.
3. A secondary axis transversal to the anterior constituted by Avenues 7 and 13 with ministerial, judicial, and banking buildings. At the intersections of the avenues are situated green spaces or parks. The urban landscape is the result of two defined criteria of occupation of the ground: one, centripetal, with mass weight at the centre of the square (institutional buildings) and the other, centrifugal with perimetral mass forming a curtain façade and heart of the square (secular buildings). Likewise, the leafy forestation is to be the characteristic frame of this new city. In brief, a layout of a city model of the end of the 19th Century, where the sun, the air, the green and the construction of man constitute a qualitative balance for a healthy life. Throughout the first years the city grows in accord with the standards of its plan; and then, for complex circumstantial reasons, its development decreases. This fact, perhaps, prevents it from developing into a landscape of defined formal predetermination and marked boundaries shaping the individual behaviour of the inhabitants, or perhaps, abandons it to the uncertain fate of time with respect to its conception as an ideal 19th-century city. A vision of the result between these conceptual antipodes can be inferred by the urban insertion of the Curuchet house.

The recovery of the urban values assimilated by the collective memory of the inhabitants of the city of La Plata is a matter of continuous search. These original characteristics began to be distorted at the beginning of the 1950s with the phenomenon of verticalization and concepts of "modernization" of the city governed by criteria of utilitarian and economic benefit: changes in favour of exclusive forms of transport (the tramway replaced by the car); subordination to the presence of the car (removal of boulevards at the avenues and excessive occupation of green spaces by parking); gradual damage of the urban landscape by neutralization of foundational forms and volumes by vertical buildings of dubious location and height; and the absence of architectural action valuing the patrimonial legacy and simultaneously reflecting the traces of time. Le Corbusier at the Curuchet house controls with respect to the inherited past, with audacious responses to the present and wise projection to the future, the immanent values of the city and the local dwelling, both in the essence and in the presence.

Thus he rediscovers in a new mode deeply rooted components of the local dwelling, such as: the threshold, the entrance hall, the curtain façade and the common wall; and he proposes other things that add richness to the re-encounter with the inherited city, i.e., the private-to-public-space relation. We note the skillful handling of the volumes setting back the garage on the ground floor, locating the portal as threshold and limit between outside and inside, the start of the ramp where the experience

of the space journey up to the private threshold of the dwelling takes place, and reaching then the volume of the consulting room over the municipal front line, recomposing at a first stage the critical dialogue with the city and its visual integration to the wide public park situated in front of the house. At the posterior volume the dwelling develops with the access from the first landing of the ramp, where the interior staircase starts, joining both levels: the first, the social with exteriorization to the terrace above the consulting room and ambient nexus with the public park; the second, the private level, with the inclusion of the volumetric setting of double height above the living-room and views to the terrace, the facing park and, through lateral escapes, to the adjacent forest. The height of this level defines the higher roof plane of the terrace, limiting the virtual volumetry above the curtain façade which is filtered by the concrete "brise-soleil". The five theoretical points and the punctual concrete structure synthesize the idea of design object with formal indetermination, which clearly solves the urban inclusion, permitting in the presence of a mutation of the intervening conditions a new and adjusting response.

Assuming that this iconographically important design object pertains to the inimitable language of the "creator Master of forms of the Modern Movement", when included in an urban sector of the city of La Plata, it alters its structure, giving it a new significance. However, its essential message is located within the field of ideas, the comprehension of which commits us to look for and discover new ways of action within the present and complex society.

REGISTER



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Official Point of View and Personal Regards on the DOCOMOMO International Selection

MoMo architecture as culture

An attempt is currently being made to compile a register of MoMo architecture on an international scale, and to ensure its heritage protection. MoMo architecture

can be defined as a series of buildings and sites that are evidence of the social values and architectural principles of modernity.

As established by the statement of intent passed at the Second International DOCOMOMO conference (Dessau 1992), the primary quality of the buildings and sites selected is technical, social and/or formal innovation. They must be evidence of the "machine age", the most convincing of them deserving the status of monument or world heritage site.

To date, only two 20th-century architectural achievements have been given this consummate heritage recognition:

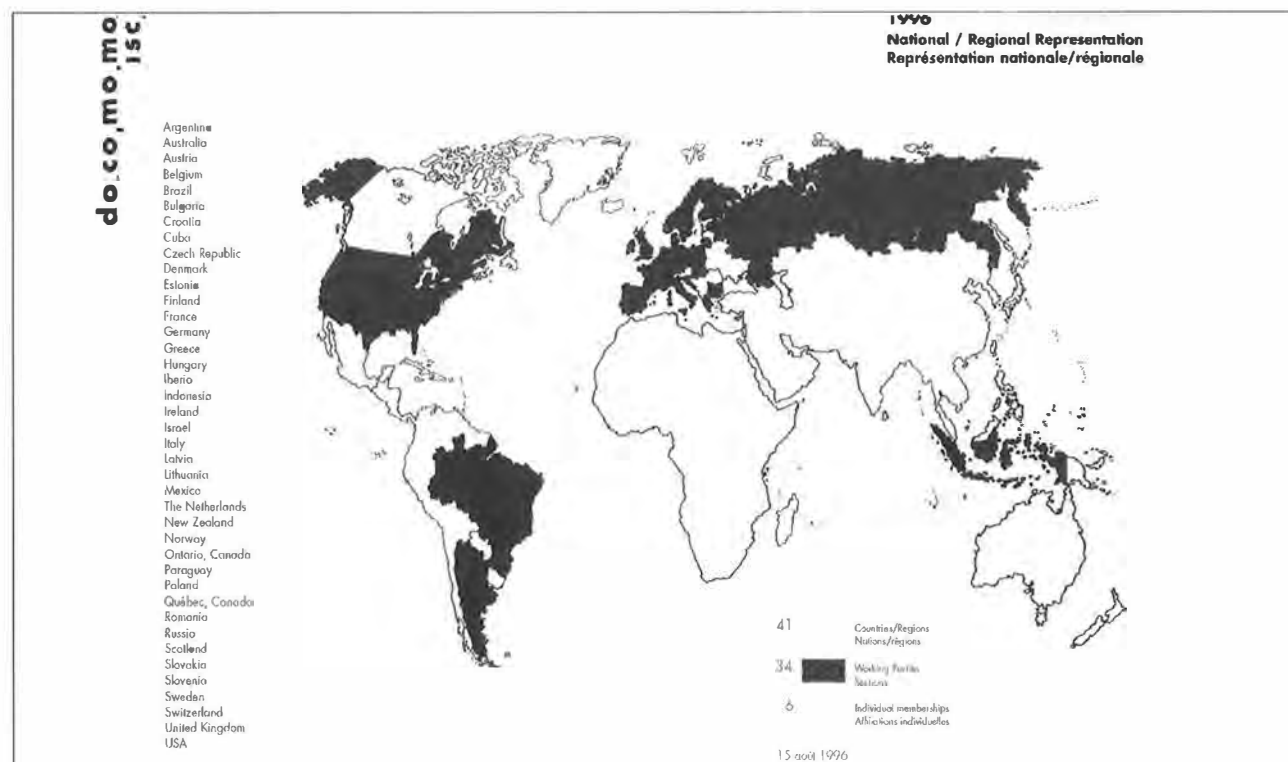
- Woodland cemetery in Stockholm, by Gunnar Asplund and Sigurd Lewerenz;
- Brasilia, the new capital city of Brazil, designed by Lucio Costa.

If my information is correct, Walter Gropius' Bauhaus School will be added to this illustrious list in the near future. The list is expected to grow over the next few years. At least, that is what we hope and what we are trying to encourage in the context of the agreement signed by DOCOMOMO and ICOMOS. To this end, the ISC/R is preparing a short list of MoMo buildings and sites with universal value to be supplemented by directives in which criteria established by ICOMOS will be reviewed in order to pro-

vide direction, when selecting their MoMo monuments, to the countries that have signed the World Heritage Charter.

Aside from the innovative quality that we value so highly in buildings and sites, there are the highly characteristic social and cultural features of modernity, such as accelerated traffic of both people and goods. This mobilization - in the sense of being mobile - is one of the major features of modernization. In architecture as in other fields, this traffic of professionals was intensified not only by advances made in means of communication, but also because of often difficult economic and political conditions. Furthermore, the dissemination of ideas and models was enhanced by the strength of the publishing industry and the specialized press. From this vantage point, we can see that certain national/regional situations have been well documented, while others are less well known.

For instance, the influence of a publication like *L'Esprit nouveau* and the tireless propaganda work done by Le Corbusier to promote modern architecture and urban planning is relatively well known. In fact, in the next few months, the Le Corbusier Foundation is organizing a series of meetings around the world to shed more light on the impact of the international intellectual and artistic contribution made by the "architect of the Century."



The role played in the affirmation of modernity in the United States by certain architects who began arriving from Europe in the 1920s, and particularly by Bauhaus teachers who emigrated in the late 1930s, has also been widely studied.

Less is known about the impact of the movement of architects and ideas to the periphery of both North and South America, as well as among the various countries of Europe.

In the Americas, the advent of modernity was marked largely by the phenomenon of immigration and was nurtured by European literature.

In Argentina, in the 1920s, some books and magazines were introduced, such as *L'Esprit nouveau* and *L'Architecture vivante*, *Bauhausbucher* and *Moderne Bauformen*. A key event for the introduction of the Modern Movement to this country, and other Latin American countries, was Le Corbusier's first visit in 1929. The emergence of the Modern Movement in Argentina seemed to mark the convergence between the French "new spirit" and

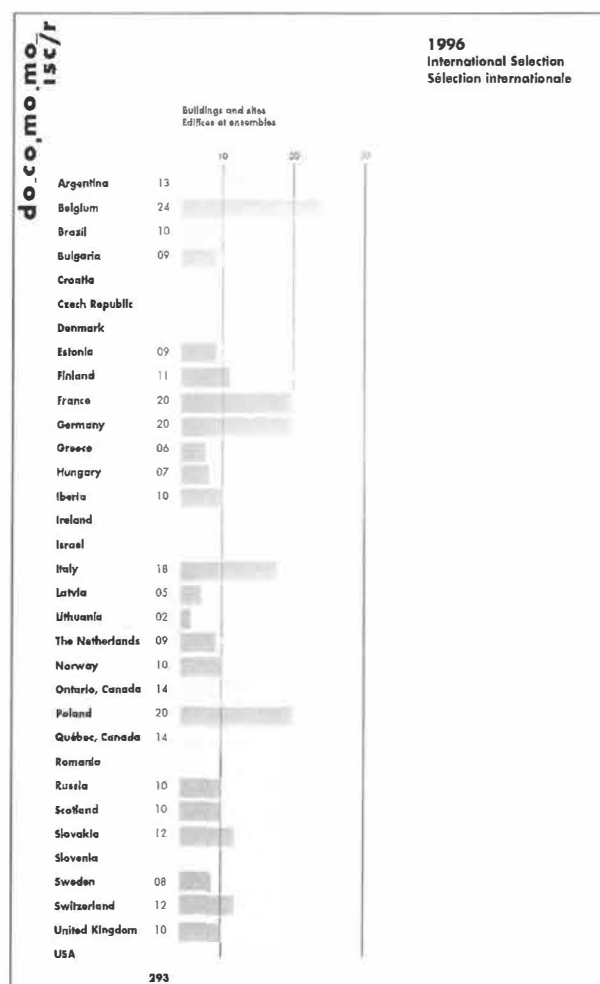
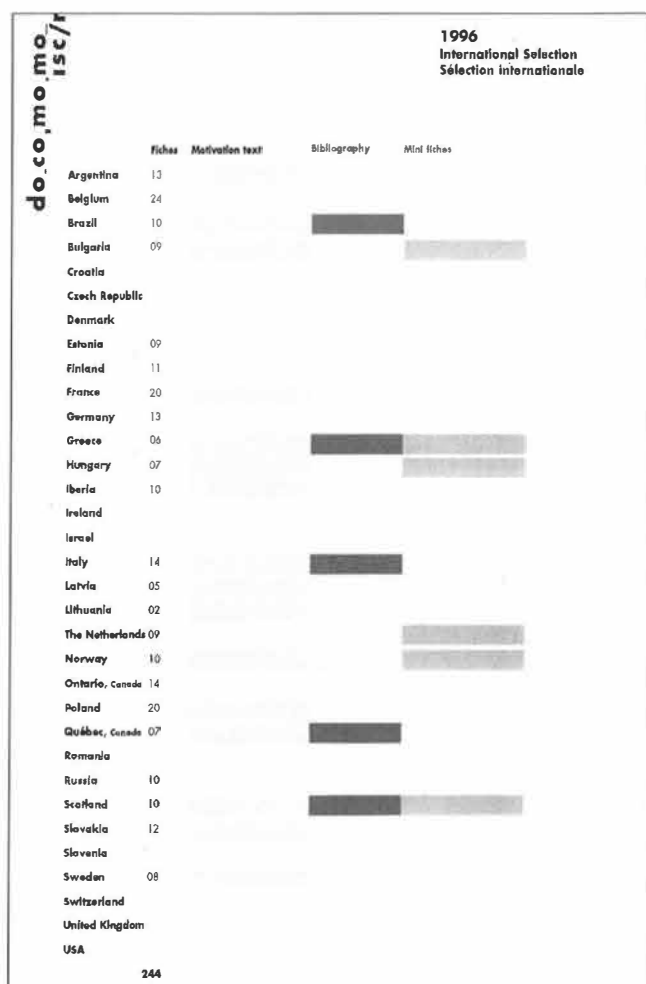
German rationalism. The latter was promoted extensively by the arrival in 1928 of Wladimir Acosta, a young Soviet architect, who was more of an ideologist than a practitioner, and who had spent the previous year in Germany. Another factor was the visit in 1930 by the German, Werner Hegeman.

During his 1929 Latin American tour, Le Corbusier also visited Brazil, where he was welcomed by – among others – Gregori Warchavchik, another young architect from Russia, who had studied in Italy. Le Corbusier's visit made a particularly strong impression on Lucio Costa, who was still a student at the School of Fine Arts in Rio de Janeiro at the time. Appointed Director of the Rio School of Fine Arts at the age of 28, Costa attempted to modernize the teaching of architecture in the early 1930s. He arranged for the hiring of Buddes, a German-born architect whose rationalist thinking was brilliantly demonstrated in the Cocoa Institute's building in Bahia (1930-1933).

Le Corbusier did not come to Canada,

but a French-born Quebec architect, André Blouin, a former student of Perret, was very strongly impressed by his work. Blouin participated in the Montreal reception for the North American tour of the travelling exhibition prepared by W. Boesiger in the early 1950s. Of course, the British connection was still very important in Canada at that time. As a result, the first major public housing ventures financed by the CMHC were based on the British experience.

Much more original as a prototype for social housing was Habitat 67, built for Montreal's Expo 67 and designed by Moshe Safdie, a young Israeli-born architect who came to Montreal as a student. This experimental building is a model of open industrialization and of "proliferative architecture" which spread internationally in the early 1960s. It can be compared to the achievements of the French architect, Jean Renaudie. To a certain extent, these architectural achievements can be seen, with their method of grouping, as pivotal projects exemplifying the simplistic rationalism of the Athens Charter.



In 1933, Athens was the departure point for the 4th CIAM, an event of great interest to young Greek architects. Here too, the new ideas and achievements of the Modern Movement were spread by foreign publications. Also, the affirmation of modernity profited from vigorous government policy in the field of education. Among the many modernist schools built in the 1930s, and very highly regarded at the time of their construction by Le Corbusier and others, were two exemplary elementary schools designed by Kyriakos Panagiotakos who was also the architect of the Blue Apartment House.

Nikos Mitsakis was another important figure at the time. He was the assistant to French architect Eugène Hénard at the School of Architecture.

In France, Paris was a centre that attracted many young decorators and architects from other countries in the 1920s, who contributed to the affirmation of architectural modernity. For instance, Paul Nelson, an American who studied under Perret, was the architect for the Saint-Lo Hospital.

Although we may be disappointed that too many of the stories about the development of modern French architecture focus on the contribution of Le Corbusier, the Swiss-born architectural hero, it is impossible to avoid his prestige and his interna-

tional intellectual and artistic ascendancy. In the early 1920s he developed a special relationship with the Soviet Union. We can in fact see a precedent for the spatial organization of the *Unité d'habitation de Marseille* which he designed right after the World War II in the Narkofim building.

But the sculptural and rugged Marseille building was part of the esthetic shift in modernism called New Brutalism. In fact, it is even one of its models.

This very impressionist glimpse of the importance of social and cultural exchanges in the Modern Movement was sketched after reading the motivation texts sent in by the WPs. The motivation text, accompanied by a short bibliography, was a new request introduced in the guidelines drawn up by the ISC/R after the first two meetings held, first in Paris in December 1994, and then in Chicago in March 1995. The purpose of the motivation text is to explain the choices made in the register process by outlining a historical perspective for the buildings and sites selected.

Of course, the DOCOMOMO register fiche established in 1992 makes it possible to trace its exchanges, notably as regards its evaluative part, and most particularly as regards the application of canonic status and reference value. These complementary criterias make it possible to establish the model value of certain projects on the one hand, and to trace any precedents at the local and international level, on the other hand.

Although in 1994 the president of the ISC/R criticized the weakness of the technical evaluations in the fiches received, I myself would stress the weakness of the cultural evaluation. While the canonic value is often revealed by good reviews of the building documented in the press, it is more rare

for its model value, when relevant, to be detailed, and it is even more uncommon for its architectural precedents to be specifically noted.

To conclude this methodological introduction, let us review the major amendment introduced by the ISC/R for collective work during its last term. In order to refine and more effectively organize the objectives of the register both intellectually and practically, they were specifically discussed at the Paris meeting in 1994. Clear distinctions were made between the different levels of the register:

World Heritage List: global level

International Selection:

international level

National and/or Regional Register:

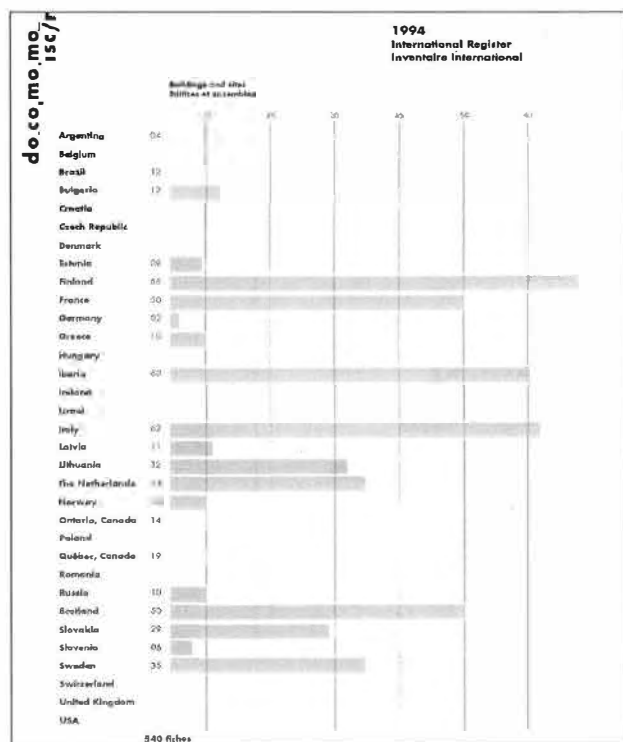
local, national or regional level.

These distinctions are not new. In the past the second level was defined as the "Top 10." But this concept was too prescriptive. It explicitly required the same number of buildings and sites to be selected in each region, i.e. ten, regardless of geographic size, demographic density, and strength of social modernization and the Modern Movement. We prefer the idea of an **International Selection**, reserving the register concept for the work done on a local, national and regional level. This work would be a long-term effort of recognition and acknowledgement, and would be the entire responsibility of the working groups, both in terms of methodology and scheduling.

However, we must point out that DOCOMOMO International wishes to be informed about the ongoing national registers established by the WPs. We also ask that the WPs submit minimum fiches to the ISC/R concerning the buildings and sites listed on the register.

This requirement has two advantages:

- First, it centralizes basic information about the buildings and sites registered in the countries/regions affiliated with DOCOMOMO International.
- Second, it gives more weight to the recognition gained by the buildings and sites on the register with DOCOMOMO International and thus provides an additional argument to support protective action. We would like to emphasize that the purpose of the national registers is primarily strategic, to awaken or reinforce heritage con-



sciousness regarding architecture. There is a similar reason behind the collective establishment of the International Selection which also aims to promote the recognition of the scope and historic significance of architecture. Aside from being innovative at a technical, social and formal level, the buildings and sites selected must show evidence of the international scope of the Modern Movement, although they may also be specific manifestations attesting to phenomena of modernity characteristic of unique local situations. In order to deal with the impressive amount of documentation collected in 1994, the ISC/R has asked the WPs to:

- Draw up a list of selected buildings and sites – in other words, reconsider their top ten.
- Review the historical data and evaluate the fiches already produced, or write up complete or minimum fiches concerning the selected buildings and sites.
- Plus a new requirement as noted above – write a text to explain the reasons for their choices.

International selection

In the directives issued in May 1995 the deadline for international selection was split to ensure that progress would be made and to maintain contact between the WPs and the Specialist Committee/Register.

In November 1995, in preparation for the 3rd meeting of the Specialist Committee held in Eindhoven, the WPs were expected to provide their International Selection list plus a motivation text.

The final deadline for the collective work was May 1996. This date was chosen to shortly precede the 5th meeting of the Committee which took place in Paris at

the laboratory offices of our colleague Daniel Bernstein, at the Belleville School of Architecture, where the DOCOMOMO International and ICOMOS documentation is located.

All of the documentation concerning the International Selection was therefore expected. Remember that this new input followed on the heels of a critical reading of the 1994 register fiches by two of the six members of the Specialist Committee/Register at a 3-day working session at the end of February 1996, albeit rather at the last minute. It was not easy to find the time required to conduct this review. From 1994 to 1996 none of the members of the ISC/R lived near the site where the documentation was assembled. The comments were conveyed to the WPs in the form of a summary report and this encouraged some people to review and complete the information contained in the fiches.

Some of the working parties (2) criticized the stringent requirements of the ISC/R. In clarifying the entries on the fiches and asking the WPs to complete – or even review – their data our purpose was to ensure the scientific level of the collective research work and the homogeneity of the results.

May we reiterate that in the past few

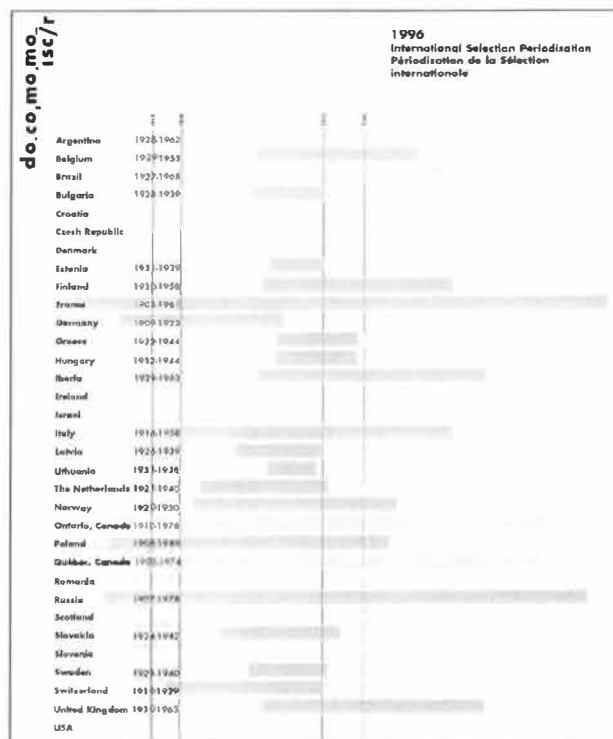
years architecture has been the subject of serious criticisms. If we wish to promote its heritage – if not artistic re-evaluation – we cannot allow ourselves to be evasive and approximate. We must contribute to the advancement of knowledge and propose a selection procedure that contributes to a better understanding of the Modern Movement.

Having reviewed the purpose and expectations of the ISC/R, let us now examine the results of the collective work.

Quantitative gains

The DOCOMOMO International Secretariat recognizes the existence of 33 WPs.

Twenty-five countries are represented in the International Selection, compared to



1996 International Selection Sélection internationale

Selection criteria

Technical Value
Social value
Esthetical Value
Canonical Status

Critères de selection

Valeur technique
Valeur sociale
Valeur esthétique
Statut canonique
Valeur référentielle

1996 International Selection Sélection internationale

Content

List of buildings and sites selected
Complete fiches
Fiches minima
Motivation text + short bibliography

Contenu

Liste des édifices et des ensembles sélectionnés
Fiches complètes
Fiches minima
Texte de motivation + bibliographie succincte

1996

International Selection Sélection internationale

Register level

local	National/Regional Registers
international	International Selection
universal	World Heritage List

Niveaux d'inventaire

local	Inventaires nationaux/régionaux
international	Sélection internationale
universal	Liste du patrimoine mondial

21 in 1991, an increase of 10%. Absent in 1994, Belgium, Hungary and Greece have reapplied for 1996.

For the moment DOCOMOMO International Selection therefore represents DOCOMOMO International at a rate of 72%, a figure that must be weighted by the fact that our organization is far from active in all countries that were marked by the Modern Movement.

To clarify the response of the WPs, note that 19 working parties responded. The ISC/R accepted the 1994 input of certain WPs on a temporary basis when it met our requirements although was not complete. Although everyone did send in their selections in the form of fiches, or simply a list, too few sent us a motivation text, and even fewer, a bibliography.

Furthermore, very few sent us minimum fiches for buildings and sites included in their national register, as requested in the 1995 directives.

For the time being the International Selection contains 293 buildings and sites in 25 countries/regions, a total which is less than the 1994 register. This is to be expected, since the establishment of the International Selection was aimed at limiting DOCOMOMO International documentation to buildings and sites of international significance, allowing countries and regions to manage their own national or regional registers.

As far as time is concerned, most of the Selection focuses on the years between the Wars. Nevertheless, the period covered extends from 1903 to 1981.

Qualitative gains

Although new entries were recorded at the last meeting of the Specialist Committee in May-June 1996, a detailed examination of the new documents was

not done. A quick review indicates that in most cases, the information collected was interesting. Several WPs completely reworked their documentation, making adjustments and additions to the fiches sent in 1994, and even introducing new fiches.

Most of the fiches concerning the International Selection submitted by countries/regions were accepted by the Committee. This situation is true for 20 countries or regions. It will be the responsibility of the Committee's publication team to publish this material.

Challenges for 1996-97

Although the publication of the International Selection is the major goal of the Register Committee in the coming years, it is not the only one.

From 1996-1998 we will have to complete the International Selection by encouraging the countries that have not yet sent in their report to do so. This will definitely be a problem for some countries.

We will also have to organize the documentation by doing a precise inventory of the materials received.

We must also look for a preliminary and quick way to publish this data, using a traditional or new method that remains to be determined.

Of course, the major challenge remains the publication of the register. One

of our members, David Whitham of DO-COMOMO Scotland, has prepared a project which he presented to WP representatives in charge of the register at a meeting held last Tuesday.

At the moment, we see this publication as taking the form of an illustrated book to be published, in English, around the year 2000. This book will reproduce much of the information contained in the fiches, each national/regional section being introduced by a brief summary essay. In addition, general introductory essays will provide an overview to compensate for any shortcomings in the international representativeness of the International Selection.

A preliminary step will be to seek financing for such an undertaking. A publication of this nature cannot be produced without subsidies, and no publisher would be interested in completely financing such an undertaking. Besides, the actual publishing work cannot be performed by volunteers.

This illustrated book will offer an unprecedented view of the international Modern Movement, since the few existing publications are generally only interested in "icons", to use the term coined by Gérard Monnier, and ignore the quality of ordinary achievements.

Domain

Individual buildings
Complexes
Sites and neighbourhoods
Infrastructures
Civil engineering works
Alterations and changes to existing buildings
Interiors and their furniture
Gardens
Architectural industrialized elements

Domaine

Édifices
Complexes
Ensembles et quartiers
Infrastructures
Travaux de génie
Rénovations
Intérieurs et leur mobilier
Jardins
Composants architecturaux industrialisés

1996

International Selection Sélection internationale

15 août 1996

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with the assistance
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DOCOMOMO USA

Is it In or Is it Out? Developing a DOCOMOMO Registry in the Northeastern United States

The objective of the northeast region working party of DOCOMOMO has been to create a list of buildings that are worthy of preservation as icons of the Modern Movement. Several issues have confronted us in the process of developing a registry:

1. How do we interpret the DOCOMOMO guidelines that selected works must be "aesthetically, socially or technologically innovative" in a way meaningful to the architectural history and regional characteristics of the New York area?
2. How do we prioritize the buildings on our list? Some works were internationally influential, while others represent a historical example of a certain typology, regional characteristic or technical development.

3. How do we determine a time factor for the modern period? In the New York area, buildings that we feel are important examples were built as recently as the late 1960s.

This paper presents our analysis and interpretations of the DOCOMOMO guidelines as they relate to specific architectural works in the New York area, but does not attempt to answer all our questions. In order to understand the context of mod-

ernism in New York, it is important to divide the history into two distinct periods: before and after the War. Before the World War II, architects were slowly embracing modernism, but the change was one of a gradual evolution, and modernism was typically seen as a transformation of traditional historical styles, or in some cases, such as the Mandel House (Edward Durell Stone, 1933), architects emulated European prototypes. After the War, modernism was universally em-



Woolworth Building, Glass Gilbert, 1912

braced. Conceptual and technical developments in New York by architects such as Gordon Bunshaft at S.O.M., Mies Van der Rohe, Marcel Breuer, and Eero Saarinen were influential around the world. Because the periods are so emphatically different, distinct guidelines for the registry should be developed for each period.

In the period before the War, the issues confronting the registry involve the relationship of technical developments to aesthetics, the question of whether engineering projects, such as bridges should be included, and the appearance of projects which embraced a progressive social agenda but were not necessarily modern in their architectural expression.

In the 1920s and 30s, developments in technology and structure were generally divorced from aesthetics. We feel it is important to discuss projects that form a part of the heritage of modernism in New York, but may not be immediately distinguishable as modern works. To that end, we should also examine the attitudes of the architect and his critics at the time of the building's conception and completion. New York office buildings of this period were typically built with a steel structural frame, and a relatively thin non load-bearing exterior wall, and architects were exploring the use of newly developed materials, such as aluminum and stainless steel. New York architects were designing buildings taller than ever before, and taller than anywhere in the world. Yet these slender skyscrapers were generally either modeled on Gothic towers, or were extended classical palazzos. An early example, the Woolworth Building (Cass Gilbert in 1911) (Fig.1) is impressive because of its extraordinary height. Should it be on the list? If one analyzes the building in order to determine the attitude of its architect, the thoroughness of his attempt to imitate a Gothic cathedral would probably lead one to the conclusion that it should not.

Both the Chrysler Building (William Van Allen, 1929) and the Empire State Building (Shreve Lamb and Harmon, 1930), each the tallest building in the world when completed, are impressive feats of structural engineering and construction. Both abounded in the use of newly developed metals. Many of the Chrysler Building's details evoke machine-age iconography, which relate to developments in technology pioneered by the

Chrysler Automobile Corporation. In its idiosyncratic exuberance the building can be seen to represent the culture of the modern age, and it was acclaimed by critics at the time of its completion as representing: "our modern life, its changing conditions and forces, with more accuracy and clearness than almost anything else in the way of an office building that has lately burst upon the startled vision of the classicists and columnists." (1). The Empire State Building is minimally detailed, and its aluminum, nickel, steel and glass mast was constructed as a dirigible mooring station. The enormous mass and scale of the building, with the magnitude of its component parts, was an engineering triumph. While its architects certainly felt the building was representative of great industrial and technical advancements, with what criteria can we evaluate it as a modern work?

The George Washington Bridge was an impressive feat of structural engineering, with the longest clear span at the time of its construction. It is also an example of the division between structure and aesthetics. As originally designed in 1925 (Othmar Amman and Cass Gilbert) it had two massive, stone-clad, classically inspired towers which disguised a complex structural steel frame supporting a suspended roadway. The steel structure for the towers was completed by 1930, but the severe economic conditions of the time led to the abandonment of the stone cladding and classical detailing. The Port Authority (the client for the bridge), with the general backing of the press and public, decided that there was no real need to clad the unadorned steel structure with a traditional vocabulary, which was one of the first times that unornamented structure was felt to be sufficient. Le Corbusier, during his visit to New York in 1935 declared it "the most beautiful bridge in the world. Made of cables and steel beams, it gleams in the sky like a reversed arch. ...the two towers rise so high that it brings you happiness; their structure is so pure, so resolute, so regular that here, finally, steel architecture seems to laugh." (2) As a work of engineering, can it also be considered a work of modern architecture?

As New York architects came under the influence of developments in Europe, the result was a gradual stripping down of

ornamentation and a more simple and severe modeling of forms. Typically the planning of buildings and large public complexes followed Beaux Arts precedents that had been popular in New York since the late 19th Century. One of the first architects to break away from this form, and to attempt novel approaches to get light and air to all sides of a building, was Raymond Hood. His Daily News Building, of 1929, was one of the first unadorned skyscrapers in the City. It is a single slab in shape, and was designed with the concept that it would not be part of the city's typical party-wall construction at the base, but would be clearly separated from the city around it, with a private street created on one side. Yet it is also replete with stylized Art Deco details, and its public spaces were very classical in their planning. It was a precedent for other later clearly modern works, so in that way it is recognized as part of New York's modern heritage.

The architecture of Rockefeller Center (Hood, Morris, Corbett and Reinhard and Hofmeister, 1929-1940) epitomizes the complexities of creating a register of modern works in the pre-war period. The site planning is derived from Beaux Arts compositions, but the massing of the buildings represents an American interpretation of modern principles. The program, with the mixture of offices, retail, entertainment and public spaces was a progressive approach to an urban complex, as was the use of multiple levels of pedestrian access and circulation, as well as landscaped roof terraces and gardens. Its appearance is only vaguely modern, but does its scale, program and massing make it a significant modern work?

At the same time as the construction of Rockefeller Center, numerous works began to appear around the city that were responding to the Museum of Modern Art's 1932 "International Style" Exhibit, which was one of the first comprehensive exhibits of European and American modernism in New York. Often these buildings were modern only in their exterior language. Fairly typical is the Spear and Company Store (De Young and Moscowitz, 1934) with its white stucco finish, asymmetrical massing, and ribbon steel casement windows. Although the style of the exterior has no particular connection to



Chase Manhattan Bank Headquarters, Skidmore Owings and Merrill, 1961

the interior, should we recognize its importance in the introduction of a modern aesthetic to the architecture of the City?

The 1920's were a period which saw the advancement of a progressive social agenda, especially as it related to housing. At the center of these developments were Workers Unions, which began to build large collective housing cooperatives (3). The most notable in its planning is the Amalgamated Dwellings (Springsteen and Goldhammer, Grand Street, 1929) which were viewed at the time as a major advance in American Housing, mainly because of the large part of the site devoted to open space (only 51% of the lot was covered) and the introduction of community rooms, auditoriums, cooperative stores and other innovative social services. Can we view the progressive social agenda as sufficiently important to include the Amalgamated Dwellings as a modern monument worthy of preservation, even though its site plan and aesthetic expression were not innovative?

The Williamsburg Houses completed in 1938 (William Lescaze), represents the culmination of modern planning principles in New York City Public Housing, and one of the few examples in which the planning, aesthetic expression and detailing all form an integrated composition. The site plan for Williamsburg Houses was developed in order to maximize the exposure to the sun. By shifting the project away from the grid,

and developing a superblock site plan, the architects were attempting to separate the complex from the traditional urban block pattern that defines the city. Educational, communal and social facilities were integrated into the program. In its aesthetic expression, Williamsburg Houses used the abstract geometry of horizontal bands, showing the floor structure, and strip windows. The planning principles developed at Williamsburg Houses influenced the architecture of many subsidized housing projects throughout the United States in the years that followed. But while later projects adhered to the concept of towers in a park-like setting, their architectural expression was limited by strict economic and design standards set by the Federal Housing Authority which precluded any design innovations. If we use Williamsburg Houses as a standard for comparison, few later projects match it on either aesthetic or tech-

nological grounds. Should a project like Fresh Meadows Housing (1948, Voorhees and Walker), which combines an attractively landscaped site with simply developed bar-shaped buildings veneered in brick with repetitive punched windows, be on the list, simply because of its impressive scale and architectural cohesion?

Because there are so few pre-war projects which exhibit innovation in all three categories (structural, aesthetic, and social) our registry should recognize projects that were important to the development of later works, as well as projects which were critically acclaimed at the time for representing a modern ethos.

Following the War, there was a radical change in the architectural scene in New York. The distinct difference between periods before and after the War suggests that the guidelines for the registry selec-



IBM Laboratories, Eero Saarinen, 1960



Look Building, Emery Roth, 1950

tion process should be different for each period. After the war, aesthetics and technology were linked: the expression of structure became the most important aesthetic solution during the 1950s and early 1960s. Our definition of social innovation should be expanded to accommodate changing attitudes towards urbanism, program and typology, which resulted in the actual realization of many planning concepts before the War. The building as an object, isolated in a plaza or park-like site became the standard typology developed for the office building, housing, and schools.

It seems clear that the post-war selection must be made on several levels. There are buildings which were internationally influential, critically acclaimed at their time and widely copied, such as the Seagrams Building (Mies van der Rohe, Philip Johnson, 1955-1958) and Lever House (S.O.M., 1952). But what do we make of the slightly later works of S.O.M., such as the Union Carbide Building (1956) or the Chase Manhattan Bank (1960), (Fig.2) or Harrison and Abramowitz's Phoenix Insurance Company (1964) which follow the development of the Lever House and Seagrams with their transparency at plaza

level, and the clear expression of structure, yet are most noteworthy for the elegance of their detailing? Perhaps elegant or sophisticated detailing, and the further development of technical aspects, such as curtain walls should be the determining factors for projects which may not merit inclusion on the strict basis of an innovative architectural concept, but certainly should be preserved as monuments of the modern period.

The New York area was the center for the development of the modern office building as well as the corporate campus sited in a rural or suburban setting. Projects such as S.O.M.'s Connecticut General Headquarters (1957) and Eero Saarinen's IBM Laboratories (1960) (Fig.3-4.) were modeled on earlier projects such as Mies Van der Rohe's campus for ITT. Yet should they not be recognized as a regional development of a type, with their beautifully detailed glass curtain walls, and carefully landscaped public areas?

Another question to address is whether the registry should include buildings or sites which exhibit no particular innovation, but may be one of the few buildings remaining that represent the architectural expression of a certain period, or the cultural and planning attitudes of the time.

The Look Building (Emery Roth) (Fig.5) although built in the 1950s, is representative of a streamlined modern aesthetic, combined with a very straightforward construction technique, that became popular in the late 1930s. As one of the few buildings remaining of this type, should it not be on the list as a representative of a distinct but rapidly disappearing architectural form? Kennedy Airport, with its "Terminal City" site plan developed in the early 1950s (Wallace K. Harrison) was an influential prototype for airport design, and symbolizes many of the planning concepts of the time. While many of its original buildings are being demolished, should they not be listed and documented as representatives of prevailing attitudes towards planning and transportation? Such a list should also include projects like the New York State Capitol Complex at Albany (Harrison and Abramowitz, 1958-1970), (Fig.6) as an example of a mega-structure project that symbolizes the power of gov-



New York State Capitol, Harrison and Abramowitz, 1972

ernment, as expressed in modern concepts of planning.

The time factor in our registry should be addressed with a certain flexibility. By the early 1960s, the attitudes of architects and the public towards modernism began to change, and generally the end of the modern period in the New York Area is clearly evident by 1966, when projects such as the classically inspired Lincoln Center began to emerge. However, drawing the line too rigorously would eliminate a few projects which should be considered, such as Marcel Breuer's Whitney Museum (1966), or the Ford Foundation, (Kevin Roche, 1967) which is innovative and influential on aesthetic, structural (pioneering the use of Corten steel) and social (integrating a landscaped atrium into an office setting) terms.

In order to complete our registry, we must work within the following parameters:

1. We must identify the most important and influential projects of both the before and after War period. This list will probably have only a few pre-war projects, and maybe five to ten post-war projects.
2. We must create a secondary list of works. For the period before the War, this would include works that repre-

sent a key part of the architectural heritage of the pre-modern movement in the area. For the period after the War, this secondary list would include works which represent the continuing development of certain aesthetic or technical details.

3. A third list should be created to include buildings which may not be particularly innovative, but are representatives of an architectural concept, or through their architectural expression convey cultural attitudes of the time.

While the creation of these lists will be straightforward for certain typologies, such as the office building, we have barely begun to address the issue of other typologies, such as the single family house – an important part of our modern architectural heritage, and more difficult to quantify because of the great number of distinctive works and their more isolated locations. Although we realize that a great deal of work lies ahead, the New York City Landmarks Commission has asked our working Party to assemble a list of ten post-war works which most merit landmarks designation, so our work has begun to result in action.

NOTES:

1. Kenneth Murchison, "The Chrysler Building, as I see it" *American Architect* (September 1930), pg.134
2. Le Corbusier, "When the Cathedrals Were White", translated by Francis Hylslop, (New York: Reynal and Hitchcock, 1947), pg. 75
3. Richard Plunz "A History of Housing in New York City", (New York, Columbia University Press, 1990) pg. 151 – 153.

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for the City of Vancouver, USA

Recent Landmarks: Identifying Vancouver's Modern Heritage Buildings

Introduction

The paper, illustrated with slides, began with an overview of the paper published by Lemon and Marco D'agostini in the

DOCOMOMO Journal (June 1995). It continued with an update on the most recent additions to the city's Heritage Register and concluded with two case studies of 1950s-era building which have been rehabilitated in the past two years.

Overview

Vancouver is a young city -- incorporated in 1886 -- with a metropolitan area population of 1.5 million. It is Canada's third largest city and a major port on the West Coast of North America. In its centennial year, 1986, a heritage inventory was established of buildings built prior to 1940. Since then, the value of more modern buildings has become a concern of heritage and architecture advocates. The West Coast of Canada, and Vancouver in particular, had an important period of development in the late 1940s through to the early 1960s and has many fine examples of modern architecture.

In order to recognize and help to preserve the buildings of the era after the World War II, the city's Heritage Commission undertook a survey of buildings built after

1940. The study was known as the Recent Landmarks Study and was completed in 1990. It considered over 250 buildings in the City of Vancouver to determine if they met heritage criteria established for the already listed 2,500 buildings on the Vancouver Heritage Register. Of those surveyed, 100 were evaluated in detail and according to stylistic categories established for the era. This became the master list of Recent Landmarks. In 1992 Vancouver City Council resolved that if a building was at least 20 years old, it would qualify for heritage status and be eligible for listing on the Register. The Register is a policy document which does not assure the protection of the building, but does make the building eligible for the City's heritage incentives. By negotiating the long-term protection of listed building through the use of these incentives (primarily by-law relaxations and density bonusing), over 100 listed properties have become designated (protected) in the past decade. With the Recent Landmarks study complete and political support to consider modern buildings as "heritage", the next step was to begin the process of the



The B.C. Hydro Building was the headquarters of Vancouver's water supply company. After the refurbishment, the building serves as an apartment building. Photo: Dany Singer Photography, 1994

formal listing of the buildings on the Heritage Register.

In 1994, after planning staff had discussed the potential listing of some of the Recent Landmarks with the property owners, Council approved the addition of 11 of them to the Heritage Register. In September of 1996, an additional 8 were added, bringing the total of listed buildings to 19 (or 19% of the identified modern properties). Of these, three have been designated – protected – as part of negotiated rehabilitation approvals. These include the Gardner House, the former B. C. Hydro Building and the former Vancouver Public Library. The last two were the case studies presented.

Case Study 1: Former B. C. Electric Building

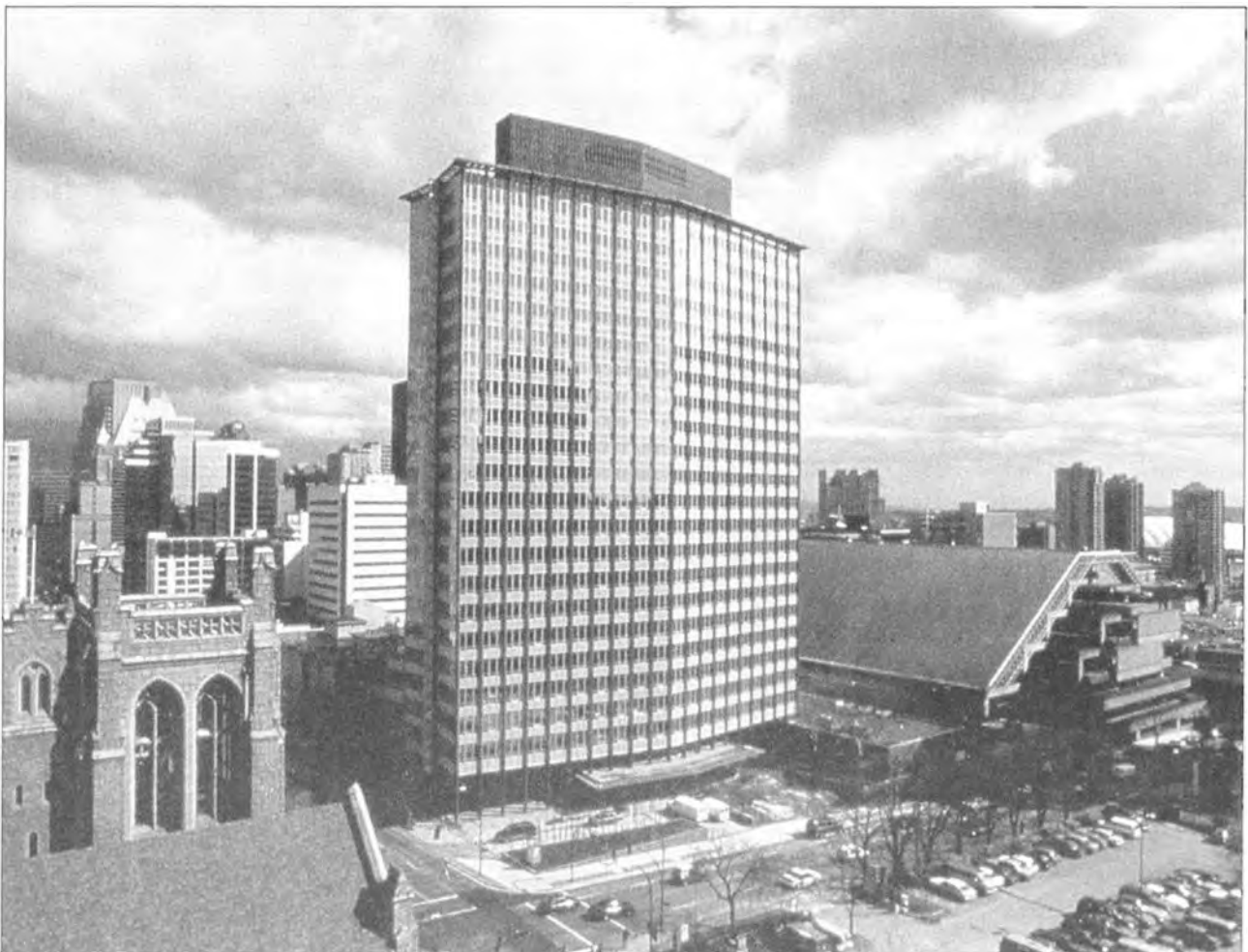
Designed in 1955-57 by architects Thompson Berwick and Pratt as the head office for the B. C. Electric Company (later

B. C. Hydro), the building was rehabilitated to a residential tower known as The Elektra in 1994. A landmark tower of 23 storeys, the building's unusual lozenge shape had a concrete core and very shallow cantilevered floor plate – no desk was further than 5 meters from a window. Slender external column-mullions clad in aluminum provided structural support to the floor slab at the perimeter. A curtain wall system of single-glazed fixed windows in aluminum frames with enamel-coated steel spandrels was installed between the structural mullions. Extensive use of glass mosaic tiles in decorative patterns of green, blue, gray, mauve and black were featured on the elevator core, external planters, foundation walls and the elevator penthouse.

In the course of the rehabilitation, designed by Paul Merrick Architect, the structural mullions were retained in situ. The curtain wall system was replaced with a double glazed system in frames to match

the material and colour of the original. The proportions of the window and spandrel area were altered, after extensive research and mock-ups, to introduce a new opening window unit to provide ventilation to the apartments. While this new window changed the proportions of the original curtain wall system, it was done in a way which does not alter the building's overall design aesthetic. The project also included the restoration of the tile mosaics. A density bonus – with the ability to transfer density to other downtown sites – and parking relaxations were incentives used to assist the developer in the building's rehabilitation; in return the owner agreed to protect the building through heritage designation, becoming the City's first designated Recent Landmark.

Overall, the project has achieved a successful balance of preservation of a modern landmark, while seeing it adapted to a viable new use.



The library after the refurbishment project to accommodate Virgin Records and other stores. Some floors have been added on top for Planet Hollywood restaurant. Photo: Robert Lemon, 1996



The Vancouver Public Library, designed by Semmens & Simpson in 1956, on a period photograph

Case Study 2: Former Vancouver Public Library

Vancouver's former Public Library was sold as a result of the construction of a new Central Library. The former library was built in 1956-57 to designs by the architects Semmens and Simpson. Aspects of West Coast Regionalism can be found in their adaptation of the International Style to this four-storey civic institution in downtown Vancouver. A glazed corner opened the building to view from the street, while a solid granite base, vertical sunscreen louvres and a knife-edged roof canopy combined to create a balanced but asymmetrical composition. An important mosaic tile mural was commissioned for the building's lobby as well as an illuminated bronze sculpture on the exterior.

The purchase of the building for conversion to retail and restaurant use saved it from demolition. A package of incentives, including density bonusing – with the ability to transfer the density to other downtown sites – as well the potential for a new penthouse level and a complete parking relaxation were agreed to by the owner in exchange for the building's heritage designa-

tion. However, the designation excluded the granite base, the vertical sunscreen louvres and the interior's mosaic mural.

Scheduled for completion in late 1996, the rehabilitation was designed by architect James Cheng. The work entailed the replacement of the glazing with new double-glazed curtain wall systems with detailing and appearance to match the original. While large portions of the black granite base were removed to create new retail openings, the original extent of the feature was retained in the form of a granite lintel which frames the new openings. The sunscreen louvres were removed. A crisply detailed metal-clad penthouse was added to the roof, set back from the knife-edge canopy. The bronze sculpture has been restored and illuminated again after decades of neglect.

Signage has presented the most visible changes to the building. To date not all of the signage has been approved or installed, so the full effect of these elements cannot be determined. External chrome and neon signs for Virgin Records Megastore, the main ground-floor tenant, are in keeping with the building's facade;

however this tenant chose to erect a wall inside the glazed corner of the building, which unfortunately alters the building's original open appearance. The wall will be used for additional signage and advertisements. Signs for the other major tenant, a Planet Hollywood restaurant, have not yet been installed. Nor have signs for other tenants in the building been proposed or installed.

While the overall preservation of this building represents the second major Recent Landmark to be rehabilitated and designated in the city, it raises issues of how much alteration can or should be permitted to such a heritage structure. In this instance, the quality of the building conversion has been done well, as evident in the detailing of the granite base openings and the penthouse addition. Unfortunately the removal of sunscreen louvres changes the balance of the facade's composition. And it is in the area of signage that the project is most disappointing, because of the dominant visual effect that such illuminated features have on a building designed originally as a civic institution.

The Modern Movement in Palm Springs, California, USA

Palm Springs is a small desert community located two hours (by automobile) east of Los Angeles, California. Originally the very few full-time occupants were attracted by the health effects of the dry air and hot springs. Visitors considered it a winter-only resort: for wealthy retailers and industrialists, a retreat from East Coast winters; for Hollywood, it was a refuge from the Press. Since the advent of air conditioning, it has evolved into year-round occupancy, while maintaining a tourist-oriented economy. Tourists are attracted to the large number of golf courses, the natural hot-springs, and the warm winter climate. Full-time residents are either wealthy, retired, or work within the tourist service industry.

Not a promising site for modern architecture. However, due to the practice of several Architects, the Modern Movement transformed this town. Palm Springs has one of the largest concentrations of modern architecture in the world. Here one sees buildings by recognized architects, and many others of the modern era and of the modern tradition. Significantly, one also sees buildings inspired by these works, built by owners or contractors, showing how modernism became a vernacular architecture.

Driving around Palm Springs one is struck by the extent of modernism. Houses and buildings everywhere have the look. Yet when the building permits are examined, usually no architect is indicated. But much of this may be due to the possibility that

modernism became a vernacular here. This was a style that was everywhere, it was expected. Contractors could pick up hints and put up a building that: had a lot of glass, had overhangs, mixed the interior with the exterior, used steel, used decorative screens for privacy and heat resistance. These may not be true architecture, and they possessed no manifesto, but they are Modern nonetheless.

Thus far 354 Modernist buildings and alterations to buildings have been discovered. Of these buildings, 18% still remain unlocated. Of the located buildings, all but 5% remain unobserved. Chart 1 summarizes the growth and decline of modernist architecture. Of the observed buildings, 71% still exist; 13% have been altered; 1% have been altered beyond recognition; 2% are threatened; 1% are undergoing restoration; and 12% have been destroyed. Each observed building has been viewed from the street. Some have also been viewed on the interior. An assessment was made of the overall condition of these buildings: 38% excellent; 40.5% good; 4.5% poor; and 17% terrible.

Luckily, many of these buildings have been well maintained. Others have not been so fortunate; they have been freely altered or even destroyed. Why?

One problem with Palm Springs is that there is so much modernism here. It is everywhere, ubiquitous, a vague background which if noticed at all is now perceived as dated. It is not recognized as special, or even interesting anymore. Also, the techniques of construction have changed, becoming more production-oriented, using conventional materials (wood frame and stucco walls), designs, and techniques. Contractors are not inclined to be concerned with preserving something that they do not understand, and few today understand modernism. Additionally, California now has strict building codes regarding both earthquake resistance and energy efficiency. Structures with large expanses of glass as were built in the past most certainly do not meet the new standards for insulation values. Nor could they ever have been intended to.

We also see the effect the desert environment has on structures. Heat and ultra-violet light cause paint to rapidly deteriorate.

Without frequent attention, structural damage to wood can happen rapidly. These forces act on the (usually flat) roof, too. And even though rainfall is small and infrequent, ensuing roof leaks cause damage. All these problems are amplified by the generally seasonal nature of occupancy. A building closed up during the summer months will bake inside, causing further damage. Even very thick wood beams twist over time, stressing the structure.

All this really is a maintenance issue. With a motivated owner, a well-designed building, properly maintained, can survive this environment. And, except perhaps for certain low construction cost buildings, there is every indication that these buildings were well designed and engineered. But the motivation of the owners has changed over time. What was once a seasonal resort community is now populated year-round. Buildings designed for occasional use may not work well under continuous use. Styles change: Spanish is popular now, as is general ostentatiousness. A sleek modernist building may not fit today's demographics, and certainly does not fit with today's market research-driven real estate market. Thus, modernist buildings may be altered freely, without any thought to architectural integrity.

Early History 1920s. Population 250; Modernist Buildings: 3 (1% of total)

Due to its remoteness, Palm Springs was rarely visited by the early Spanish colonists of California. Hence, unlike most of Southern California, there is no history of Spanish Architecture. Early inhabitants were the Native American Aqua Caliente band of Cahuilla Indians. The small tribe (numbering 50 in 1920) lived seasonally near the springs, which offered cold water for cooking and warm water for medicinal baths.

The desert environment was thought to have positive health effects on such diseases as tuberculosis, asthma, arthritis, and allergies. This, coupled with the medicinal effects of the hot springs, caused an influx of invalids. Some came for winter season stays, a very few others came to live year-round. From 1905 to 1925 over 80% of new residents and visitors came for health

reasons. Many of these individuals were wealthy and could afford to construct a new house.

Slowly, Palm Springs began to grow, from a permanent population of 75 in 1913, to 250 in the 1920s, to 1,000 in 1930, to over 42,000 in 1992. These figures include only the "permanent" population, which, prior to the introduction of air conditioning, declined to almost nothing in July, August and September. Since air conditioning, it was estimated in 1950 that this population only drops to 50% in those months. These figures do not include the "temporary" population: visitors, hotel guests, and patients who stayed in the winter season only. These have been estimated to be on average three or four times that of the number of "permanent" population, and much higher in holiday seasons.

Prior to the 1920s there were few buildings at all in Palm Springs. The 30 or 40 houses were built of canvas, wood, and/or of adobe, such as the McManus Adobe (1884). The Austrian architect R. M. Schindler (1887-1953) built the first modernist building in the Palm Springs area, to the east in Coachella: the Paul Popenoe Cabin (1922), subsequently destroyed. The first major modernist building was the Oasis Palm Springs Hotel (1923), by Lloyd Wright (1890-1978), eldest son of Frank Lloyd Wright. This hotel catered to Hollywood movie stars, who used Palm Springs as a haven to escape from Los Angeles.

Commercial buildings, more so than residences, must respond to the changing marketplace if they are to survive. And so the Oasis Hotel has been modified over the past 70 years. What we see here is an evolution from 1924 to the present. First the Hotel was built with extensive lands and gardens, with a rustic dining room. Then as land and retail space fronting Palm Canyon became more valuable, Stewart Williams (1909) built the Oasis Office Building and Shops, which also included the offices of Williams, Williams & Williams, architects (1952). Here we see the contrast of an older concrete and glass modernism with a newer steel and glass modernism. As the Western style fell from fashion, Stewart Williams built a new dining room (1957). Luckily, part of the old dining room was preserved as a historical building (on another site).

1930, Population: 1,040 Modernist Buildings: 17 (5.5% of total)

Earle Webster and Adrian Wilson built the Mrs. Davidson House "Ship of the Desert" (1930). The building remains in excellent condition. William Gary Purcell and Evera van Bailey built the Purcell House (1933), which remains in excellent condition. These were the only two Art Deco projects in Palm Springs in the 1930s. Was this style too conservative for this community?

In 1934, Swiss architect Albert Frey (1903) moved to Palm Springs, an event which changed Palm Springs forever. For Frey had an early interest in De Stijl and Bauhaus, and had experience with Le Corbusier on the Villa Savoye (1928). He brought with him a passion for glass, steel, and aluminum. Frey had come to America earlier, becoming partners with A. Lawrence Kocher (1885-1969) in New York.

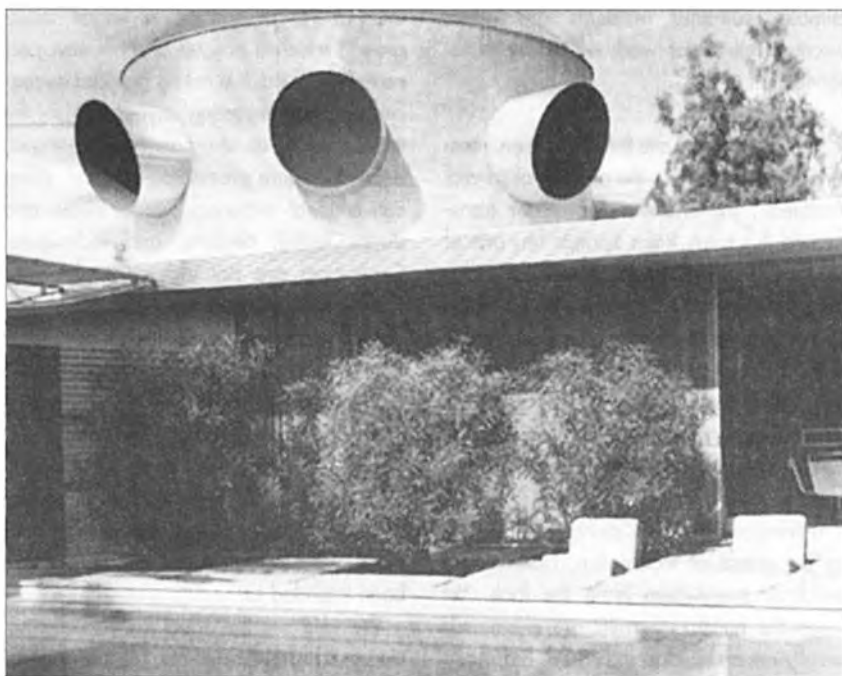
Kocher's brother, J. J. Kocher, was Palm Springs' first resident doctor and pharmacist. Frey came to Palm Springs (his partner remained in New York) to build a real estate sales office: the Kocher-Sampson Building (1934). Now, there were other real estate offices here already: Alvah Hicks had been developing real estate since 1913. But here, driving into town on

North Palm Canyon Drive, was a new (!) striking building, of concrete, glass and steel. The sign said Real Estate, but the building said Modern. Here is where the first connection was made between modern and Palm Springs.

While Frey would later return to New York for a while, he fell in love with the desert. Frey applied the tools of modernism to the difficult arid climate. Expanses of glass captured the scenic vistas, shaded by overhanging steel roofs. Walls and landscaping offered shade, and pools too helped the cooling. Still, homes here were considered for seasonal or occasional use - few people stayed in town during the hot summer months. It would only be after World War II, when air conditioning became available, that year-round living would become commonplace.

The 1930s were a slow time of development in an America still recovering from the 1929 depression. Overall, Frey was to build nine projects in the 1930s. His San Jacinto Hotel (1935) was a nice small hotel just north of downtown. Abandoned for years, and looking ready for demolition, it has recently been purchased by a German and is now undergoing restoration.

The Austrian Richard Neutra (1892 - 1970) built the Grace Lewis Miller House in 1937. This minimalist structure utilized wide overhangs for shading as well as a reflecting pool to temper the heat - tech-



The Frey House I, built between 1941 and 1953. Photo: Lothian Toland

niques William F. Cody would later use, with a more Miesian bent. This was a magnificent house, plainly visible, and so influential, in the fashionable Racquet Club district. Unfortunately, today the house is a wreck: the screened dining porch enclosed; the reflecting pool long empty; the elaborate landscaping returned to desert.

In 1939, Frey and John Porter Clark would build Clark's own house. Reminiscent of Kocher & Frey's Aluminaire, the living room is elevated on pilotis. The house was, and still is, striking, and used to stop traffic.

**The 1940s period before the War, Population: 3,43
Modernist Buildings: 19
(6% of total)**

In 1940 the economy expanded and Frey was busy building the Cathedral City Elementary School, which remains in excellent condition. This school was to be the first Modernist school in Palm Springs, built as an experiment. Nellie Coffman, on the School Board preferred Spanish architecture. But modern was shown to be less expensive, so the School Board allowed the structure to be built – but rather far away from view. Modern did in fact turn out to be economical to build and so future schools would be modern – until today.

Master-planning had not come to Palm Springs yet, nor did it until the late 1960s. Institutional buildings were not planned; they grew and grew. Modernist buildings proved adaptable to this, and so as institutional buildings grew, they simply added on more modules.

Frey also built a skating rink, now demolished; and built the Palm Springs City Gates, also demolished. And then in 1941 he built his distinctive Frey Residence I. Frey I is a pristine example of a machine for compact living. Interestingly, while he was building Frey I, he lived in the apartment above his Kocher-Sampson Building. Frey later extended the living room, adding a small pool, and later added a second story, creating a most futurist structure. He shaded the second-story bedroom windows with unusual tubular metal shades. This was a technique he would later use on the North Shore Yacht Club and the Premier Apartments. Unfortunately, a subsequent owner has all but destroyed the

building, altering it beyond recognition, leaving only the pool.

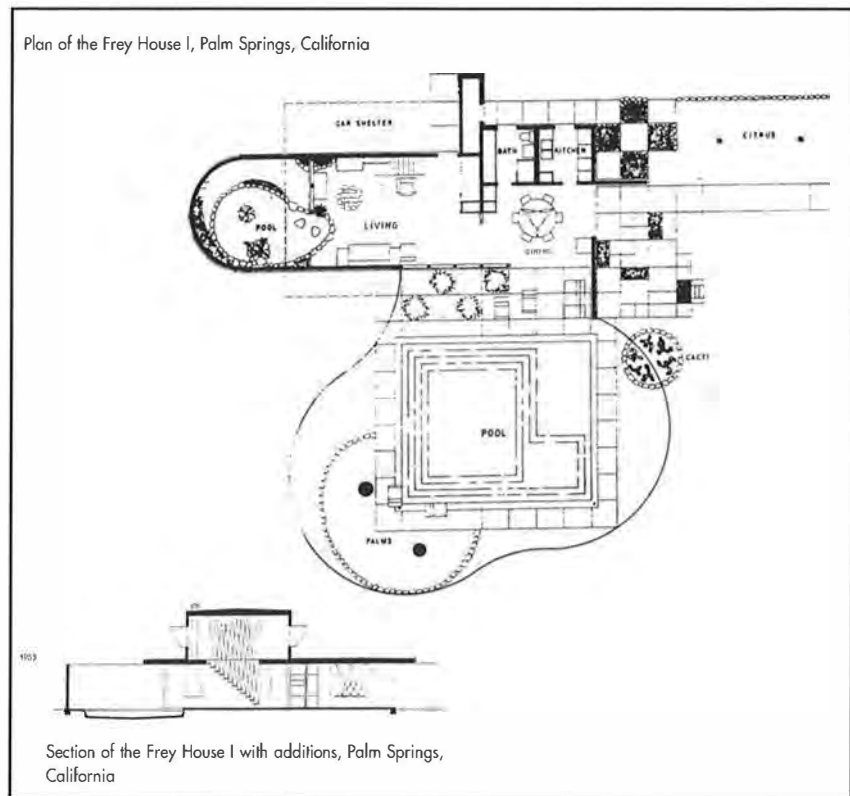
**World War II, Population: 15,000
Modernist Buildings: 24
(8% of total)**

World War II brought a halt to normal building construction. The population doubled due to General Patton using this desert for training his tank corps. Frey worked on

Samson Office Building and the Seeburg Building (1946), both now altered.

His additions to the Racquet Club (1945, 46, 47, 48, 50, 57, 61) would prove advantageous. Guests staying at the Club, liking their quarters, would inquire who designed them. And were invariably led to Frey for their future architect.

Frey integrated swimming pools into the landscaping, and to structure, having the



the conversion of the El Mirador Hotel to the military Torney Hospital (1942), now destroyed. He did very little more until 1945 - a very busy year indeed.

**After the World War II 1940s,
Population: 7,213
Modernist Buildings: 54
(17.5% of total)**

Frey built war housing, like the inexpensive Bel Vista tract (1945) of 15 houses, mostly altered. And apartments like his Villa Hermosa (1945), which has been abandoned for years. Recently purchased, will it be restored? Or destroyed? And the Strieby Apartments (1945), now altered and almost unrecognizable.

Frey did commercial work too: the Nichols Building (1945), still extant, for another real estate developer. Also the

pool enter the house as in his Raymond Lowey Residence (1946), now undergoing restoration. Also in 1946 he built the Desert Hot Springs Elementary School, now terribly modified. Clark and Frey also built the Clark and Frey Office Building (1947), subsequently modified. One interesting aspect of this work is the use of one of the first commercial air conditioning units in the desert.

Lloyd Wright returned to the Valley to build the Institute of Mentalphysics (1946). This sprawling campus of low buildings still exists in fine condition. Lloyd used large overhangs, roofed with woven reeds, to shield the buildings. The reeds are unavailable now, so the overhangs no longer function as intended, but they produce an interesting visual effect nonetheless.

R. M. Schindler also returned to the desert to build the Toole Desert Cabin in

Palm Desert (1946). This building, though altered by both the original and present owner, remains in excellent condition.

Richard Neutra also returned, to build the Kaufmann Desert House (1946), which is presently undergoing a massive restoration. With Kaufmann, Neutra worked around restrictive building codes to make a structure for indoor-outdoor living. The Julius Shulman photograph of the house with the swimming pool in the foreground is one of the seminal images of modernism. Kaufmann is also significant for observing the way society treats architecture. Over the years subsequent owners modified the building. Rooms were added. The second owner had William Cody add an office and extend the bedroom. The third owner had Edward Grenzbach, a local architect, build a pool house. Singer Barry Manilow made additional changes. Eventually, air conditioning ducts were placed on the roof, impacting on the magnificent view. A terrazzo floor replaced the original douglas fir decking of the "gloriette", much heavier than the original floor. This caused structural and water damage to the interior of the house.

Over time, the architectural integrity was compromised. Fortunately, the new owners recognized the intrinsic value, and are performing an extensive restoration.

The city has recognized the value of this building too, first with a Historic Preservation Award in 1995, and just recently by designation as a Class I Historic Site.

1947 brought John Lautner to the desert. He built his four unit Desert Hot Springs Motel of concrete, steel and glass.

Unfortunately, the economics of a four-unit motel are unfavorable, and the motel was abandoned for ten years. The present owner has turned it into an apartment building, and has done a nice job of restoration.

1947 also brought Paul R. Williams and A. Quincy Jones (1913-1979) to Palm Springs. Here they built additions, cottages, and a dining room to the Palm Springs Tennis Club, which still exist. Both architects would continue to do works here in the future.

Another significant Palm Springs architect, Stewart Williams, who started his career here in 1946. Williams only designed a few houses, including significantly his

own in 1954. Here we see the use of concrete, both as flooring, as well as a dramatic tilt-up wall that passes through the house to form a windbreak. The large expanses of glass are shaded by 16-foot overhangs. The roof is covered with insulation, and the house is cooled by an evaporative "swamp-cooler" unit coupled with underground ducts. All this provides for inexpensive (10% the cost of air conditioning) cooling (but not humidity control) in an arid environment.

Williams concentrated on institutional work, designing schools, hospitals, and most recently the Palm Spring Desert Museum and the new addition to the Museum. Williams is not of the old-school of modernism, his work is more of a combination of the Organic, growing from the modern tradition, with a heavy Swedish influence.

The Williams House remains in excellent condition. Unfortunately, his Frank Sinatra House (1947) has deteriorated dramatically. As has his Pepper Tree Inn addition (1948).

William Cody (1916-1978) is the another major modern architect in Palm Springs. Born in Los Angeles, Cody moved to Palm Springs in the late 1940s to relieve his asthma. But here he also found a growing economy and a desire for modernism. He was able to shift his experience from the wood and glass ranch houses to steel and glass. His own house, Cody Residence (1947) exemplified his desire to break down the separation of inside and outside - even some showers were exterior. This house has seen subsequent modifications. Cody's Del Marcos (now San Marino) Motel (1947) has recently been purchased and is undergoing a cosmetic restoration.

Cody was a fanatical detailer, a perfectionist on paper, as well as in construction. He was always striving for thinner, slimmer elements, which really stretched his engineers' talents. Unfortunately, this subtlety of design may have had an unintended side effect: subsequent modifications may not be performed with the same level of precision. Even worse, these subtleties may be unrecognized, and serious damage to a structure could be caused through such ignorance.

In addition, buildings change with time. They deteriorate. They are or are not maintained. New technologies, such as air conditioning, are retrofitted to the structure. New owners have new requirements. Each modification done without the understanding of the original concept causes damage. Soon a house may be unrecognizable, and even worse, not apparently worth saving. Perhaps this is what happened to the Shamel house. A magnificent piece of work, subsequently modified numerous times, which is now a vacant lot, demolished in 1993.

This is not say that this is a fault of Cody - it is a fault of Modernism. The embrace of new technology, of new materials works so long as people understand what is underneath. When those people die, when those materials and methods are made obsolete by more conventional materials and methods, the future understanding of those materials and methods decline rapidly, especially among contractors and developers - all leading to the eventual doom of many modern buildings, unless education and documentation is performed at the local level.

1950, Population: 7,660 Modernist Buildings: 83 (27% of total)

Frey also designed numerous commercial and institutional works, including some schools, from which the Katherine Finchy School (1948) remain in fine condition. Others, like the Cielo Vista School (1955), have been recently remodeled in the latest pop style: "Outlet Mall Cute". More serious is the tragic modifications to the Palm Springs High School. Here we had an early Spanish building by John Porter Clark, then various modernist buildings by Stewart Williams and Albert Frey. Williams' Auditorium is a stunning work of modernism, now destined to receive a Spanish tile roof and a new Spanish entrance! The entire campus is receiving this cosmetic make-over. It is curious how times change. When the first schools were built modernism was accepted because it was functional and was less expensive to build than Spanish. Now, neither function nor cost seem important - only style.

Paul R. Williams and A. Quincy Jones returned in 1950 to build the Town and Country Center, a striking outdoor mixed-

use environment. This consisted of a successful restaurant, the Top of the Ramp (later the Town and Country); shops and offices; and apartments above. The building remains in good, but altered condition.

1952 brought Frey's Palm Springs City Hall, presently undergoing cosmetic restoration. A tour-de-force of steel and glass, with formed metal screens to shield the hot sun. Here is another example of sequential additions. Frey did the original design, with John Porter Clark doing the specifications and Roger Williams performing overall supervision. Then Williams, Williams & Williams added the southern "Civil Defense Wing" in the early 1960s. And finally, Stewart Williams added the Building Engineering Wing in 1985.

Construction expanded at a breathtaking pace. Houses, apartments, churches, commercial buildings sprouted up everywhere. These included Williams Edris House (1953); Donald Wexler's own house (1954) – Wexler would later do the Palm Springs Airport (1966); and Cody's L'Horizon Motel (1955), all in excellent condition.

Frey's Cree House N°2 (1955) sits above A. Quincy Jones & Frederick Emmons's Romanoff's on the Rocks Restaurant (1958). Romanoff's has been altered beyond recognition; presently it is the long abandoned Pompeii Nightclub. Recently purchased, will it be restored? Or altered even further? Jones and Emmons also did the Robinson House (1957), which remains in excellent condition.

Frey's Premiere Apartments (1957) have an interesting story. After the original owner died, the subsequent owner wanted to develop the property. The building was sold to the Orchid Tree Inn, a motel across the street. Then the Premiere was cut in half, moved across the street on rollers, and re-assembled. The building remains in good, but somewhat altered condition.

In 1958 William Cody started work on the Palm Springs Spa Hotel. Sited on hot springs, and on leased Indian property, this is a major part of the Palm Springs landscape. Long covered walkways were flanked by pools, now removed. The building has just been altered, becoming a Casino, and is being altered yet again.

A truly sad chapter of modernism is Frey's various projects on the North Shore of the Salton Sea. He built a Yacht Club

(1958), followed by a Beach Motel and Beach Estates Sales office, (both 1959). A thriving resort existed for a few years. But then the main financier died, and also, the lake became polluted by agricultural run-off. Both Yacht Club and Motel are abandoned, and the Beach Estates development remains mostly vacant.

In 1952 Cody was to develop a new expertise: designing Country Clubs. Thunderbird was the first. This was followed by Tamarisk (1954) and then by Eldorado (1957). The exclusive club had a long tradition in Palm Springs, starting with the Racquet Club in 1932. Starting in the late 1950s and continuing to the present day, these developments moved east, out of Palm Springs, where land was more available. Cody, Williams, Frey, and other architects would build custom homes on these properties.

The Country Clubs offered privacy, they are guarded and gated, and only open to owners, members and guests. In addition, they offer private golf courses. Tennis fell out of fashion, eclipsed by golf. But golf courses require large expanses of land, unavailable in the City of Palm Springs, so development had to move elsewhere.

To avoid the northern winds, development had to hug the mountains, leading to an inevitable easterly movement. This had a deleterious effect on the economy of the City of Palm Springs. Hemmed in by Mountains to the south and west, the wind to the north, no major developments could take place. As developments moved east, so did the money.

1960/ Population: 13,488 Modernist Buildings: 65 (21% of total)

In 1962 and 1963 George Alexander, a contractor and developer, built a distinctive neighborhood of steel-framed houses in the northern part of Palm Springs, designed by Donald Wexler. These remain in excellent condition, although the surrounding neighborhoods have seen better days. A curiosity is the Bob Alexander House (1962), thought to be designed by Wallace Neff. Later it became the Elvis Presley Honeymoon Cottage. The structure is in excellent shape, but the interiors are pure Elvis.

In 1963 Frey built his second house, Frey House II. Prior to the construction of

the John Lautner Bob Hope House, this was the highest elevation site in Palm Springs. A small house, cut into the hill, it has a large boulder inside separating the bedroom from the dining room. Steel, aluminum and glass, it is a deceptively simple structure, inexpensive to build. Frey, at 93, continues to live there.

Across the street from each other are dueling gas stations: Cody's Tramway Shell Station (1964), and Frey and Chambers Tramway Gas Station (1965). Both are in good condition, although the Frey and Chambers building has been recently badly painted. And the owner is fighting historic designation.

In 1966 Donald Wexler built the Palm Springs Airport, which remains in excellent condition. The exit from the concourse is a large expanse of glass which beautifully frames the mountains. 1966 also saw the beginnings of the sprawling Walter Annenberg Estate, designed by A. Quincy Jones & Frederick E. Emmons.

Noted Case Study House architect Craig Ellwood did the Palevsky House in 1968. Built on what Stewart Williams has called the best site in Palm Springs, this building turns its back on the view and forms a finely detailed pavilion. The house remains in excellent condition, still occupied by the original owner.

John Lautner returned with a project for the deserts' foremost Interior Designer, Arthur Elrod. The Elrod residence (1968) again uses concrete and glass to bring indoor-outdoor living to the desert. Like Frey's Lowey residence, Lautner too brought part of the pool indoors. The expanses of faceted glass offered an impressive view of the eastern mountains, especially at dawn. A freak wind storm blew out the glass, and this was then replaced with a new curved wall of glass, suspended and motorized to slide open. The roof is concrete, actually two layers of concrete separated by insulating foam. Elrod has suffered from unsympathetic remodeling. Luckily, the new owner is performing a correct restoration.

1970, Population: 20,936 Modernist Buildings: 26 (8.5% of total)

The 1970s saw a decline in modernism. The number of custom modern houses declined dramatically. Was this due to cost?

Or to a change in the tastes of home. The cost of a custom house was becoming out of reach of a typical individual. Developers shifted to planned developments, designed by demographics, surveys, and statistics. The Spanish style became popular.

Edward Durell Stone built a series of modernist structures for the Eisenhower Memorial Hospital in Rancho Mirage (1971, 1972, 1975). The first dramatic building has been added to, and now the viewpoint of the striking Julius Shulman photograph is obscured by another building.

1970 also brought out Cody's St. Theresa Church, a striking building both inside and out, using glass and glue-laminated beams. And in 1972, John Lautner built the Bob Hope House, a building more visible across the valley than any other structure. 1973 saw Williams Desert Museum, now with a Williams addition. In 1978 Kendrick Bangs Kellogg produced the impressive, organic, Charthouse Restaurant in Rancho Mirage, still in excellent condition.

1980, Population: 32,366 Modernist Buildings: 16 (5% of total)

Modernism trickled off even more. Wexler did a Police Training Center (1985). Frey did a few alterations including

the stunning Mirrored Pavilion in 1986. Williams did a striking house for his son Erik Williams (1988). Josh Schwietzer did a (more post-modern) house for himself in Joshua Tree (1989).

1990, Population: 43,000 Modernist Buildings: 1 (-0.3% of total)

Things look even bleaker in the 1990s, with perhaps the only modern building being Kendrick Bangs Kellogg's Doolittle Residence (1995). This formed concrete structure continues under construction in Joshua Tree.

New construction has continued to move away from modernism. Building design is now ruled by market research. New custom homes are built in today's style: the Palm Springs Mausoleum look. Country Club homes try to outdo each other in ostentatiousness. And now each Country Club house looks like a hotel lobby. At the other end of the scale, developments continue to move to the lowest cost construction method. And so individualism becomes impossible.

The Future

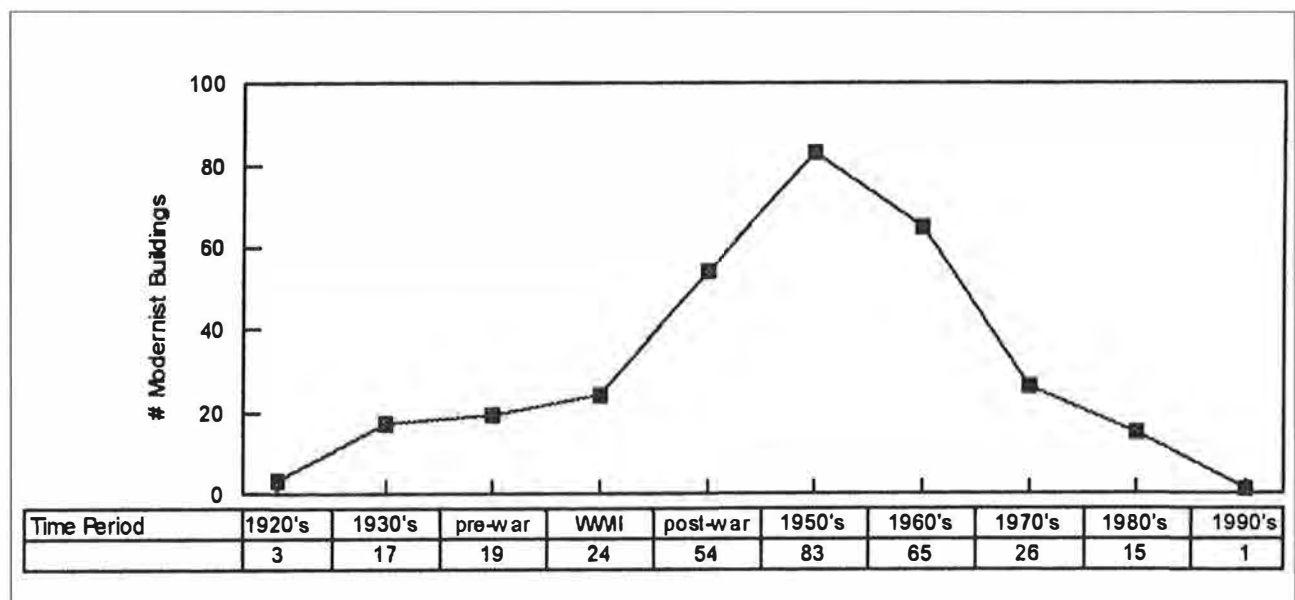
All is not lost, though, at least in terms of preservation. Although the general public is unaware of the vast treasure that surrounds them, there is an opportunity for education.

This has been specifically triggered by the restoration of the Neutra Kaufmann house. This restoration is beginning to be published, which will bring much attention to Palm Springs, and to modernism.

In addition, other modern works are being restored. The Albert Frey Raymond Lowey house is starting a restoration. Frey's San Jacinto Hotel has been saved from demolition, and is being restored. A restoration of Cody's L'Horizon Motel was performed a year or so ago, and now a cosmetic restoration of his Del Marcos (now San Marino) Motel is being performed. John Lautner's Elrod Residence too is being returned to its former state. And most significantly, Frey's City Hall is undergoing a cosmetic restoration.

All of this will increase the awareness of modernism in the desert. And hopefully, this will lead to even more restorations. As the level of public awareness rises, we should see more interest in modernism.

This paper only presents a few of the many examples of successful modern architecture in Palm Springs. Various architects, often using similar materials, have come up with a variety of solutions to the problems presented by this environment. Luckily, most of the modern buildings have survived. And though many have been altered, or are threatened, there seems to be cause for hope for the future.



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DOCOMOMO Brazil

DPH and DOCOMOMO: Register of the Modern Architectural Movement in the City of São Paulo – Brazil

The register of the Modern Architectural Movement in the city of São Paulo has been in progress at DPH (the Historic Building and Monuments Commission for São Paulo).

São Paulo, the largest city in Brazil and the most important economical center of the country, lies, with its 1,500 square kilometers, within a huge complex of 37 cities composing the Metropolitan Region of São Paulo. The continuous urban network of this region is spread over 1,800 square kilometers. The total population is approximately 15,000,000 inhabitants, 12,000,000 of which live within the city of São Paulo.

Founded by Jesuit priests in the second half of the sixteenth century, São Paulo arose on a wide plateau, 80 km inland and 740 meters above sea level, across a huge escarpment covered by rain forest, the "Serra do Mar". The settlement began on a hill between the stream Anhangabaú and the river Tamanduateí, a tributary of the main river of the region, the Tiet. This

was one of the reasons for its selection, in addition to its accessibility to surrounding areas. It was also in a strategic position because of the rivers which connected it with all the hinterland.

In the early centuries this settlement, along with nearby indian villages, did not develop a significant urban structure.

The Portuguese that colonized Brazil preferred to improve the coastline towns in accordance with their economy, which was basically geared to extracting the wealth of the land.

In this way São Paulo was maintained for near 300 years as a crossing place where people going from inland to the seacoast stopped to rest.

In 1872 São Paulo had an urban population of 19,347 people within a regional population of 31,375. The small urban core densely occupied the original triangular hill between the river Tamanduateí and its tributary, the Anhangabaú. The urban network timidly began to overpass both valleys, the natural limits of the original acropolis.

From this moment on however, São Paulo was the stage for the development of a new national economic cycle and became the "Capital of Coffee". The coffee plantations sprawled all over the fertile land of the state of São Paulo. This "green gold" was carried by new railroads built by English companies through the city of São Paulo, which became the major commercial center for concentrating all services. All of the goods were sent to the port of Santos for export.

In the last three decades of the 19th Century São Paulo grew in population and entered the new century with 240,000 inhabitants, among which where a large amount of European immigrants who brought new ways of building and new construction techniques.

In this century, with the process of industrialization at full speed, the city had an enormous horizontal growth, but the transformation also made the old town disappear almost completely through a process of substitution of the old buildings by new ones.

Nowadays we have just a small number of old historic buildings that we intend to preserve carefully.

It is in this sense that we can say São Paulo is a new city and its principal characteristic is that of a city that was built basically from the 1930s onwards, at the same time as the modern movement in architecture arrived in Brazil.

So, we consider that the documentation and preservation role of modern architecture is one natural for us.

The preservation heritage system in São Paulo is made up of three levels:

- 1- the national,
- 2- the regional,
- 3- and the municipal one.

The Historic Building and Monuments Commission for São Paulo (DPH) is our municipal level and it is qualified to evaluate and register the buildings and places considered important to our history and culture.

Since 1983, we have developed in DPH a systematic register project named IGEPAC. In order to increase the IGEPAC, the method was adopted of dividing the area of the city, taking the neighborhoods as research units.

The search made "in loco", block by block, is very important in this task, because we consider not only the historic buildings but also those of special architectural value; in addition, we also take into account the quality of the urban spaces and assemblage with environmental interest.

This is why a considerable number of buildings that normally would not be included in an inventory focussing on historic and architectonic values are included in the IGEPAC list, although sometimes they are not neighboring buildings of special merits.

The IGEPAC list is not a register of just former architecture, but also of buildings made in the recent past.

IGEPAC has documented a total of 13 urban areas that include the old town center and most of the neighborhood that surround it. In those lists we have an outstanding number of buildings made after the 1920s; on studying them, we believe we can find elements from which to draw a portrait of the architectonic production in the city over this period, giving special attention to architecture of modernist influence.

In 1986 we had the first register exclusively of modern architecture. That work was done by DPH and São Paulo's Planning Secretaries and consisted of a list of the main modern buildings in the city.

This work, however, was not continued. In 1994, Brazil DOCOMOMO asked the DPH for help in order to produce a first selection of 2 or 3 buildings, and also the complete register. So we decided to choose two designs, one of them from Gregori Warchavchik and the other one from Rino Levi.

Warchavchik, a Russian-born architect, studied at the Architecture School of Rome until 1922.

The design we chose was the "Rua Bahia House", which was built in 1930. It was one of the first modern architectonic Warchavchik designs in Brazil.

Warchavchik can be considered the introducer of modern architecture into Brazil. His first design was made in 1927 and is named "Modernist House".

The "Modernist House", together with the "Rua Bahia House" and the "Rua Itapolis House", make up the important trilogy of Warchavchik works. This was the beginning of modernism in Brazil.

The "Rua Bahia House" is the one on which he could work at his best, joining the modernist aesthetic to advances in technical solutions and value given to internal details.

The second design we selected is from Rino Levi, a Brazilian architect who also studied in Italy, at the Polytechnic School of Milan and at the School of Rome, between 1921 and 1926.

The building we selected presented important contributions to the way of organizing building activities, the way of implanting the building on the ground, the use of new constructive materials and new aesthetic solutions.

We did not choose these two buildings because they had a presumable advantage in comparison with the rest of Modern Architecture in São Paulo until the 1940s, but because they are on the edge of an era not sufficiently studied in the Modern Architectural Movement in Brazil, and also because Rino Levi and Gregori Warchavchik have not had their work sufficiently appreciated in the history of Brazilian modern architecture.

Warchavchik built his most important houses between the late 1920s and the earlier years of the 1930s. In 1929 he published a manifesto entitled "The New Architecture", inspired by the Bauhaus principles. We may note, however, that his name disappeared from journals and architecture reviews between 1933 and 1939. We find no references to his buildings or ideas in this period.

Modern architecture also has less interest in this period in Brazil.

The chronicles and the architects started again to discuss modern architecture in 1936 with the beginning of the construction of the Education and Culture Ministry (MEC), whose design had the participation of Le Corbusier.

In the official history of modern architecture in Brazil, the year of 1936 is the beginning of the Modern Movement in Brazilian Architecture.

Rino Levi also produced a vast and unknown oeuvre in the 1930s, and his role in the development of modern architecture in São Paulo – and also in Brazil – is less valued.

After this first selection made to DOCOMOMO and motivated by the increase of our interest in the subject, we decided to create a team that would have the task of studying and registering the modern architecture of the city in a systematic way.

This is how we introduced the IGEPAC, which uses geographic canons, a thematic pattern: the modern architecture in São Paulo.

Our first question was: in a city like São Paulo, which was built almost entirely from the 1930s onwards, what kind of architecture should we register?

We have had an "official" modern architecture: the one which has exhibited all the modernist sources, the architects' recognized work. This architecture has been adopted and published by architectural reviews and has been studied in architecture schools.

We consider, however, that our role was not simply to make a list of the same buildings. We set as our main role to try to rescue the architectonic production which was unpublished, the good quality work of unknown or not well-known architects. In this way, the traditional IGEPAC will help us a lot.

Another target we intend to reach concerns the architectonic production in the 30s and 40s that was strongly influenced by this "official" modern architecture, yet not recognized as such. We find lots of buildings of this period in São Paulo and they make a strong impression on the city scenery.

What kind of influence did the modernist principles have on this type of architectonic production? This is a question we intend to answer.

At the moment we are developing the bibliographic research stage concerning Brazilian modern architecture, in particular modern architecture from São Paulo. By researching at the various São Paulo libraries and in the National Library data bank, in Rio de Janeiro, a remarkable amount of books, reviews and academic theses about this subject was discovered.

All this information is being searched, including references to paulista (a group of MoMo architects in Brazil) architecture between the 1920s and 1950s, which is our first search stage.

So far we have just organized a register of work in São Paulo by fourteen architects – whether paulista architects or not – amounting to 210 buildings. That information was extracted from the issues we had researched and it is being constantly brought up to date. The information is also being transferred to the IGEPAC by neighborhood archives and providing support to other DPH projects.

As a direct product of this stage we will have an informatized roll on the principal designs and buildings of the Modern Movement in São Paulo in this period, with the address of buildings, the construction date, the architect's name and the constructor in charge, bibliographic references, complementary information and papers or photos, original designs, etc. We are organizing this information and it will be soon available for consultation by those interested at DPH.

We are also starting some work concerning a Convention between the São Paulo State Government and São Paulo City Prefecture that was made at the end of the 1940s and continued until 1960.



Ibirapuera Park

This Convention initiated a great production of official buildings like schools, day nurseries, libraries, theaters and small hospitals all over the city.

The team of architects that participated in this Convention was constituted by public service architects coordinated by Helio Duarte, an architect from Rio de Janeiro. He has a lot of buildings constructed in several Brazilian cities, and works that deserves to be better known.

This work will be done in association with the São Carlos Architecture School, from São Paulo University. This school has a respected study group concerned about Brazilian architecture.

This joint project will be the first one we intend to develop in order to increase the DPH activities.

There follows a selection of some important MoMo buildings as an example of paulista architecture from the 1930s to the 1950s.

Ibirapuera Park

Ibirapuera Park was designed by Oscar Niemeyer and other paulista architects to celebrate the 4th centenary of São Paulo in 1954.

Ibirapuera is considered the most important leisure and cultural area in São Paulo and has an area of 1,600,000 square meters. This includes a lake, recreation and sports facilities, and four buildings connected by an enormous organic shaped reinforced concrete marquise.

Three of the buildings have a rationalist inspiration and the fourth has a hubcap shape with round orifices near the ground.

The architectonic assemblage that is dominated by the marquise is perfectly integrated with the green area surrounding it. The whole park is a splendid urbanistic design with a modern conception situated in the central area of São Paulo.

Cultura Artística Theatre

The Cultura Artística Theater was designed by Rino Levi in 1942.

The building is composed by two superposed auditoriums. The irregular plot restricted the plastic solutions: the architect

designed a bent façade that has on the upper portion an extensive

Di Cavalcanti panel. The panel seems to be supported by the glass of the lower portion of the façade in a light arrangement.

The auditoriums were designed to have a perfect acoustics.

All the furniture boasts solutions that innovative for their time.

MASP

The Art Museum of São Paulo (MASP) was designed in 1957 by Lina Bo Bardi, and can be considered her most important work.

It was designed to house the MASP collection and also to create a center for the propagation of interest.

The declivity of the ground, the tunnel under ground, the condition imposed that the belvedere needed to be preserved and the meeting hall maintained, are determining features of the organization of the design program. The architect planned a completely open structure recreating the artificial plaza and the belvedere, dividing the building into two parts: the lower (with two floors), below the ground level of Paulista Avenue, and the upper (also with two floors).

Two prestressed beams support the roof, which has a total span of 74 meters. They are simply supported beams, with liberty of movement in the direction of the beam's axis.



MASP



Brenal building, Ibirapuera Park

The floor, which is supported by two beams, measures 70 x 30 meters with a coverslab caisson in re-enforced concrete.

The space functional organization follows the same structural conception: no walls, no obstacles. On the lower level we can see two visually integrated floors with ramps.

In an interview in 1989 Lina Bo Bardi said about MASP: "[...] I wanted to say when I designed MASP: that museum was a "void", a search for liberty, the elimination of all obstacles, the capacity of being free towards all things."

MASP is a building with a sober and functional conception and extremely thoroughly adapted to its usage. In spite of its sobriety, the MASP is an example of challenge and rupture. This building was the first one of many that were constructed after it and with similar conception, and

which had a strong influence on the formation of the *Paulista* Architecture School

Edifício Esther - Esther Building

The project of the Esther Building, made in 1935, was the result of a competition launched by the Usina Esther company that was won by two architects: Alvaro Vital Brazil and Adhemar Marinho. The original building program anticipated a polyfunctional building with offices, shops and apartments, and intended solely to provide revenue.

The owners of the Esther Building established a total of eleven stages to the building, which was divided in two blocks: the three lower floors were allocated for offices and the rest of the floors for apartments of different sizes and different forms of spatial organization. On the ground level it was planned to install shops, and

under ground level it was planned to construct a restaurant and the parking area.

The architects started by dividing the irregular plot of land into two parts by projecting a street parallel to the main street.

The architectonic composition of the building façades was followed by internal organization.

The modern conception of the Esther Building is found also in the geometric purity of the façades, in the utilization of continuous windows, in the garden terrace situated one of the higher floors, and in the staircases that emerges on the side of the building.

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Dutch MoMo – Monuments Under Discussion

In this presentation I should like to offer you some insight into current discussions about the Dutch monuments of the Modern Movement (MoMo) within the circles of DOCOMOMO and professional preservation. It would appear that the legacy of the Dutch *Nieuwe Bouwen* has a growing number of specimens on paper – in publications as well as in registers. However, we do not know precisely how many MoMo monuments we actually have in The Netherlands. It is typical for the Dutch situation that there are at least five different types of registers with MoMo items, from which I shall show you a cross-section.

1) Dutch DOCOMOMO-register

The composition of the Dutch national DOCOMOMO-register is still a work in progress and probably would count more than 200 items. For practical reasons we have concentrated, up to now, on the inter-war period, which is the best known and is already providing us with a lot of important buildings to take care of. We started with a draft list of architects who were members of the functionalist groups of “de 8” and “Opbouw” (such as B. Merkelbach and Ch. J. F. Karsten with their “Landlust” housing and W. van Tijen with his Montessorischool, both in Amsterdam). (1) We evaluated foremost the fundamental architectural renewal and also their social engagement as demonstrated by J. A. Brinkman and L.C. van der Vlugt (Feyenoordstadion), J. H. van den Broek (De Eendracht housing) – both in Rotterdam, J. B. van Loghem (concrete housing in

Betondorp, Amsterdam-Watergraafsmeer) and J. Duiker (technical school, Scheveningen).

For the moment, our working party did no further documentation for the national register, although we can profit now from the recent results of the national Monuments Inventory Project (which I presented at the first conference in Eindhoven) and, in the near future, from the results of the research project – called BONAS – which has been started by the Netherlands Architecture Institute in order to make bibliographies and oeuvre-lists of Dutch architects, town planners and landscape architects from the 19th and 20th century. (2)

2) International Selection and “top-10”

Instead of working out a national register of still-existing MoMo buildings in The Netherlands, we spent our efforts in composing an International Selection (IS) which was presented during the Third Conference at Barcelona on CD-ROM in chronological

we strove for a great diversity, geographically as well as in typology, reaching from social housing to schools, religious, commercial, cultural or sports buildings, and civil technical works. This can be illustrated by the following examples: Studio apartments, Amsterdam (P. Zanstra, J. H. L. Giessen, K. L. Sijmons); the Bergpolderflat, Rotterdam (van Tijen); the Theosophic Temple (Brinkman and Van der Vlugt) and the Synagogue (A. Elzas) in Amsterdam; Stock Exchange (J. F. Staal), Rotterdam, former COVM office (J. Wils), The Hague; AVRO studio (Merkelbach and Karsten), Gooiland theater (Duiker), both in Hilversum; Zwolle open-air swimming pool (J. G. Wiebenga) and Sailing-club house (Van Tijen), Rotterdam. (3) We also included some important modernist works of architects outside, but close to, the “de 8” and “Opbouw” groups (e.g. the Volharding office by J. W. E. Buys and J. B. Lürsen, the first car park building Torengarage by W. and J. Greve, both in The Hague; the former Social Insurance Bank by D.



The Hague Torengarage, Torenstraat 144, photo: Rijksdienst voor de Monumentenzorg

order. For practical reasons we decided to restrict our list to 50 examples, all belonging to the period between the Wars. When making the selection we adopted the “Bauhaus definition” from 1992 (“innovative architecture in social, technical or aesthetic aspects”) rather than on the basis of the membership of the functionalist societies “de 8” and “Opbouw”. At the same time

Roosenburg and the Skyscraper by J. F. Staal both in Amsterdam; the Schunck department store at Heerlen by F. P. J. Peutz, the Rijnlands high school at Wassenaar by J. P. Kloos).

Because of their international significance we also included the Hilversum Town Hall by W. M. Dudok (which in our country is not regarded as a work of the *Nieuwe Bouwen*)



The Haghe Torengarage (first parking garage in the Netherlands) architects: J. & W. Greve, (brothers), built 1929 - 30, restored 1992, photo: Rijksdienst voor de Monumentenzorg, Zeist 1992

and the very last work by the "founding father" of Dutch modern architecture, H. P. Berlage (the Municipal Museum at The Hague). Berlage, in particular, who never designed an "immaterialized" building, confronts us with the sharp sides of the MoMo definition, as Frank Lloyd Wright (whose work was introduced by Berlage in The Netherlands) does probably in the USA. In our opinion we could not leave Berlage out of our list because of his tremendous meaning for Dutch modernism, and also because he was a CIAM participant.

On the other hand we did not accept all works of "8 and Opbouw" members as representative of the Dutch Modern Movement: for instance we said "yes" to the Rotterdam Kiefhoek housing scheme, but "no" to the former BIM office in The Hague by J. J. P. Oud; as for S. van Ravesteyn, we were for his signal box along the railroad near Maastricht (the last remaining one of the dozens he designed) but against for his neo-baroque Blijdorp zoo in Rotterdam.

Out of the IS list of 50 Dutch MoMo buildings, we chose a "top-10" (which in fact is a top 9) after counting the results of preferences of all individual members and after a general discussion about the significance for both national and interna-

tional developments in architecture. Especially the renewal in ground plan and space as well as transparency were highly appreciated. Probably, you would consider the same buildings as the utmost representation of the Modern Movement in The Netherlands: the Schröder house and the opposite housing row at Utrecht by G. Th. Rietveld; the Zonnestraal sanatorium (Hilversum), Nirwanaflat (The Hague), Open Air School and Cineac cinema in Amsterdam by Duiker; Van Nelle factory and director's villa in Rotterdam by Brinkman and Van der Vlugt, and the former furniture shop Schunck by Peutz at Heerlen.

3) National register of listed monuments

All these buildings are officially protected, whether rebuilt, ruined or restored. This brings me to the third field where MoMo monuments are under discussion (even earlier than within DOCOMOMO): the national register of listed monuments. In The Netherlands official recognition of MoMo monuments was for a long time hindered by the legal demand that a building should be at least 50 years old. Only the early Rietveld-Schröder house could escape this rigid rule. Other MoMo monuments had to stay in the "waiting-room" until a special State Commission for Recent Heritage, appointed in 1979, proposed in the 1980s a list of about fifty functionalist works to be registered as "special recent monuments", precisely because they represented the Dutch contribution to the Modern Movement.

For this selection the works of the most influential MoMo architects were inspected. Not only the great masterpieces received legal protection, but also two to three dozens of typical (private and summer) MoMo houses expressing the search for new ways of living in their spatial organization and total appearance. For instance: the Papaverhof housing (Wils, The Hague) and the summerhouse in Groet (Merkelbach). Apart from the legal criteria (beauty, importance for science, history or culture, and older than 50 years), the selection was based on more critical aspects such as representativeness, the meaning of the designer for (inter)national architecture, and the revitalising character in plan,

form and space. (4) In some cases the original intentions, especially towards new building techniques, were more important than the actual soundness or recognizability of the original forms. For instance, we listed two experimental houses with prefabricated materials (wooden house at Aalsmeer by Duiker and former driver's house at Utrecht by Rietveld), which both were radically rebuilt afterwards. At that moment we could not know that about ten years later new owners would be willing to reconstruct the original architecture. Nevertheless, other projects were refused by then for listing because they were too much affected by alterations and their initial meaning was at that time regarded as less important (e.g. Rietveld's former music school at Zeist and J. G. Wiebenga's ULO school in Aalsmeer).

At this very moment the discussions about the altered and other MoMo buildings are re-opened during the current Monuments Selection Project (MSP) of the recent heritage. This project is the follow-up of our previous Monuments Inventory Project (MIP). Although the Netherlands Department for Conservation provides central guidelines and intensive instructions, there is a great variety in interpretation when sixteen teams of young professionals make up selections for listed monuments for restricted areas. As it looks now, a large amount of newly listed MoMo monuments can be expected, not only because so many examples were (re-)discovered during the MIP and buildings dating after 1935 can now be inscribed (like Van Tijen's drive-in houses in Amsterdam and P. J. Elling's private house Rossinilaan 11, Hilversum), but also – to be honest – because there are not too many opportunities for critical reflection or comparison. Nevertheless, thanks to this broad and generous approach many works of the Modern Movement will have a great chance of surviving, including the less known, such as J. H. Groenewegen's former Montessori school in Bloemendaal or the former steel factory's canteen in Gorinchem by Merkelbach and Karsten (whose replacement after the recent liquidation of the De Vries Robbé firm is now under discussion).

However, it would be necessary to reconsider again our opinion towards authenticity and alteration: if we accept so many al-

terations and reconstructions as in the cases of Wiebenga's technical school in Groningen, Social Insurance Bank (with completely reconstructed "ring building" after realization of an underground parking amenity), the Zonnestraal buildings and Ypenburg airport, why then refuse others for the DOCOMOMO registers or for legal protection? Perhaps you know the answer.

4) Dutch MoMo and World Heritage List

Recently our department started discussions about the Dutch MoMo monuments within the international context. Last year (1995) the Dutch government for the very first time submitted a proposal for the World Heritage List concerning architecture. Unlike other countries we based our "tentative list" on a thematic approach. We chose therefore three main themes typical for the Dutch heritage. It is remarkable that a great part of the 10 preliminary selected buildings and sites belongs to the 20th century and that even post-war heritage is mentioned, although we still have our legal restrictions at national level.

The first theme is Nederland-Waterland, the man-made landscape of the Low

Countries. This is symbolised by the windmills at Kinderdijk (nominated in 1996) and the waterline defence system of the Position around Amsterdam (nominated in 1995) and especially by the typical layout of the Dutch polders from different centuries. Yet, much surprise and much discussion was provoked by the proposal of the recent reclamation area of Noordoostpolder (realized in 1942-62) for the "tentative list", not only because of its very recent date, but also because of its economic and planological implications. Nevertheless, this is an interesting case for DOCOMOMO because one of the eleven new towns (called Nagele) in this new land is totally developed according to the principles of the Modern Movement. While the other towns are laid out with traditional features (dominated by intimate squares, prominently situated churches and pitch-roofed houses), Nagele received a large green belt in the centre with a modest church building and a rectangular pattern of streets with flat-roofed houses around.

The proposal is also interesting for future conservation policy because the Noordoostpolder covers an unusually

large area and confronts us with many difficult planological aspects. At this moment we have not as yet made much substantial progress towards preservation, but the beginning itself of discussions with the local authorities on the heritage theme may be the first step towards greater care for post-war buildings and landscapes.

If the polder proposal may raise some eyebrows, the second main theme of the Dutch contribution for the World Heritage will be less surprising; it is the civic culture of the 17th-century Golden Age, represented most fully by the inner city of Amsterdam with its world-famous canals and former City Hall. Here, too, we can find important works of modernity (e.g. Berlage's Stock Exchange and Duiker's Cineac).

Then comes the third main theme, which is quite unusual within the context of other governmental WHL proposals because it is explicitly devoted to the *Nieuwe Bouwen*. Among the current proposals we find three highlights of our DOCOMOMO top 10: the Rietveld-Schröder house at Utrecht (to be nominated in 1997 and now in use as a museum-house), the Zonnestraal sanatorium at Hilversum and the Van Nelle factory at Rotterdam.⁽⁵⁾ And it might be interesting to know that members of the national DOCOMOMO working party, at the request of the Netherlands Department for Conservation, contributed their help in the preparation of the Dutch "tentative list".

5) Local registers

Now I have to take a huge step to descend from the world-wide level to the local level in order to address some important preservation activities. Since our Monuments and Historic Buildings Act demands the age of at least 50 years before a historic building can be listed, until recently almost all architecture built after the War was disregarded for survey or selection. Yet, in the "Jubilee year" of 1995 (50 years of Freedom since the World War II) interest in the architecture and urban planning of the "Reconstruction" is rapidly increasing. Some municipal and provincial authorities have already listed some highlights (e.g. the Feyenoordstadion and the Groothandelsgebouw trade centre, both in Rotterdam, or in North-Holland a bungalow by Rietveld) through their local legislative bodies, in this way avoiding the



Former Social Insurance Bank office, Amsterdam, Apollalaan 15, architect D. Roosenberg, 1937 - 39 restored 1993 and since in use by a lawyers company.

50-years rule. Nevertheless, more support and research is needed to attract more attention to this neglected part of our "recent heritage". Therefore, at the Netherlands Department for Conservation discussions are in progress about starting a new research project dealing with the heritage of the 1940-65 period. This cannot start, however, before the end of this century because we have first to finish our Monuments Selection Project for the 1850-1940 period.

Hopefully, it will be not too late then for the conservation of some important ensembles built after the War, such as the Lijnbaan shopping centre in Rotterdam (which at this very moment is undergoing renovation) or the small-scale Frankendael quarter in Amsterdam-Watergraafsmeer.

New Challenges For DOCOMOMO

The investigation of the architectural heritage after the War will be one of the great challenges for the Dutch DOCOMOMO working party for the near future. Moreover, the documentation of the

already registered MoMo monuments can be improved, especially with regard to the interiors.

On the other hand, we still have to be active as "hunting dogs" attending to the proper conservation of the MoMo heritage. Although we are happy with several successes, much concern is still needed to keep up the large number of MoMo buildings and sites in reality, as a whole or in characteristic details. In spite of the official protection of many MoMo monuments, the threat of radical rebuilding or demolishing is still serious, due to a new balance of power in the field of conservation. For instance, the famous Cineac cinema in Amsterdam by Jan Duiker is at present under renovation for conversion into a Hollywood Planet restaurant complete with a new neon light in post-modernist style. Although it was already badly rebuilt in the 1980s, the building was so much appreciated that its original appearance is now one of the historic illustrations in the new Dutch passport! However, this official recognition does not in practice give enough protection against owners who

rebuild radically. It was very hard for the local authorities (which are now in charge of building permits since the new Monuments and Historic Buildings Act came into force in 1989) to resist the (economic) power of Arnold Schwarzenegger and his mates. They could only require that the original constructions (as far as they remained) be saved and that alterations made be reversible.

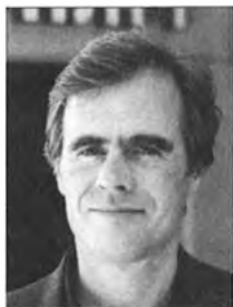
This case is just one example of the problematic re-use of many functionalist buildings. But for the two other Dutch MoMo buildings which will be nominated for the World Heritage List there is more hope: the Zonnestraal sanatorium will be re-used and restored by Hubert-Jan Henket and Wessel de Jonge, while for the re-use of the Van Nelle factory (which will be abandoned in the next year) there is intensive co-operation between owners, conservation and planning authorities and architects to find a good solution. Indeed, here are the true challenges for the Dutch DOCOMOMO working party.

NOTES

DUTCH MoMo-MONUMENTS UNDER DISCUSSION

- | | | | |
|------------------------------------|---------------------------------------|--|--|
| 1) Amsterdam, Landlust, housing | 1) Montessori school, Amsterdam | 20) Papaverhof, The Hague | 20) Groet, Nieuweweg 2
summer house |
| 2) Feyenoordstadion, Rotterdam | 2) De Eendracht housing,
Rotterdam | 21) wooden house Aalsmeer,
rebuilt | 21) former driver's house,
altered |
| 3) Betondorp/Van Loghem | 3) 3rd techn. school
Scheveningen | 22) wooden house Aalsmeer,
restored | 22) former driver's house,
restored |
| 4) Studio apartments, Amsterdam | 4) Studios, Amsterdam | 23) ULO school, Aalsmeer | 23) Zeist, former music school |
| 5) Theosophic Temple | 5) Synagogue, Amsterdam | 24) techn. school,
Groningen | 24) Soc. Insurance rear,
Amsterdam |
| 6) Stock Exchange, Rotterdam | 6) COVM office, The Hague | 25) Rossinilaan 11, Hilversum | 25) Amsterdam, drive-in houses |
| 7) Gooiland theatre, Hilversum | 7) AVRO studio, Hilversum | 26) Bloemendaal,
Montessori school | 26) Gorcum,
De Vries Robbé canteen |
| 8) Zwolle open-air swimming pool | 8) Kralingen sailing club | 27) Ypenburg airport, Rijswijk | 27) Ypenburg, airport, Rijswijk |
| 9) Volharding office, The Hague | 9) Torengarage carpark,
The Hague | 28) Dresselhuyspaviljon, Hilversum | 28) Termeulenpaviljon, Hilversum |
| 10) Social Insur. Bank, Roosenburg | 10) Amsterdam Skyscraper,
Staal | 29) Kinderdijk, windmills | 29) Kinderdijk, windmills |
| 11) Heerlen, „Glass Palace“ | 11) Rijnlands lyceum, Wassenaar | 30) map position of Amsterdam | 30) Ijmuidem, fortress island |
| 12) Hilversum, Town Hall | 12) Municipal Museum,
The Hague | 31) Noordoostpolder, map | 31) aerial view Nagele |
| 13) Kiefthoek housing, Rotterdam | 13) Oud, BIM-building | 32) Nagele, church, v/d Broek | 32) Ens, green + church |
| 14) Maastricht, signal cabin | 14) Blijdorp zoo, Rotterdam | 33) Amsterdam, map inner city | 33) Amsterdam, Rokin |
| 15) Schröderhouse, Utrecht | 15) Utrecht, housing Erasmuslaan | 34) Rotterdam, reconstruction | 34) Rotterdam, Groothandelsgebouw |
| 16) Zonnestraal, Hilversum | 16) working hall, Zonnestraal | 35) Rotterdam, Lijnbaan shopping | 35) Amsterdam, Frankendael |
| 17) Nirwana, The Hague | 17) Open-air school, Amsterdam | 36) Cineac, old situation | 36) Cineac Planet Hollywood |
| 18) Van Nelle factory, Rotterdam | 18) interior Van Nelle factory | 37) Cineac in 1990 | 37) Cineac in passport |
| 19) Rotterdam, van der Leeuw house | 19) interior Van der Leeuw house | 38) Zonnestraal | 38) Van Nelle factory |

URBANISM

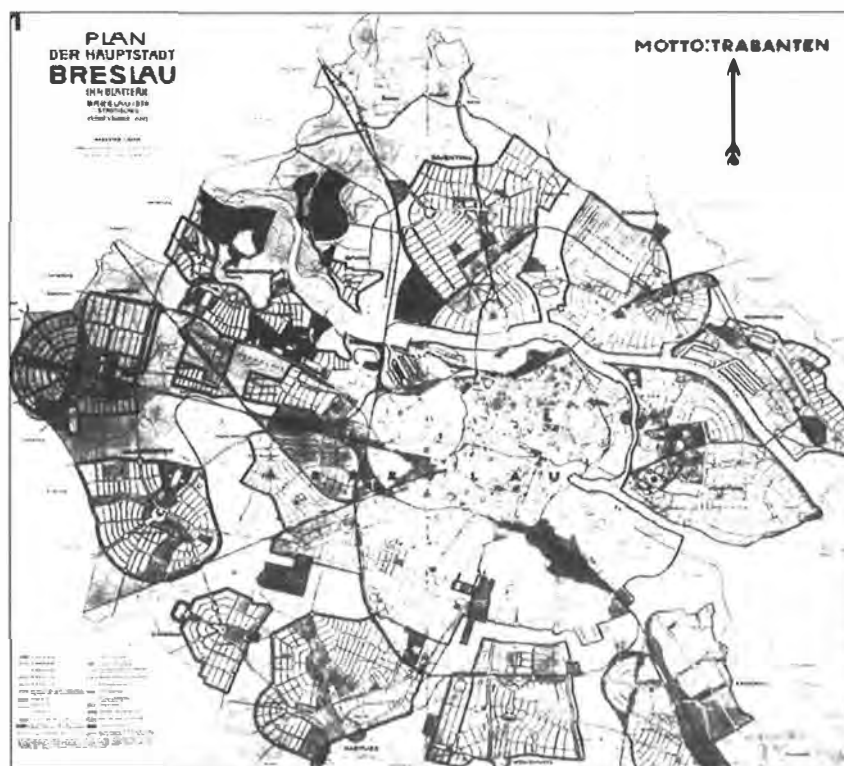


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Urbanism of the Modern Movement in Wrocław (Breslau)



Wrocław. Competition project entitled „Satellites” by Ernst May and Herbert Boehm (1922)

The Modern Movement had a great influence upon urban development of Wrocław. Owing to the first Masterplan in (1924) and new building regulations (1926) municipal authorities obtained effective instruments for management of urban development in its technological, social, economic, sanitary, and cultural aspects. Besides, a considerable expansion of the city in 1928 contributed significantly to a consistent development of Wrocław.

Situated on a navigable river, which provided access to the Baltic Sea, and an important travel and railway route, Wrocław was a commercial centre of contemporary Germany, playing a significant role in trade with eastern and southern countries, as well as a vital transportation centre of the entire province, rich in natural resources and fertile soils. The city's life-giving artery was a route running from the north-west to the south-east and connecting Hamburg-Berlin-Wrocław-Cracow-Lvov as well as Budapest and Vienna. It connected also Wrocław with a mining and metallurgical region of Upper Silesia, situated 150 km away. This arterial road was crossed also by a vital route running from the south-west to the north-east: from Prague through Wrocław to Warsaw to St.

Petersburg. A planned expansion of railway and river connections (a planned connection between the Oder and the Danube) was supposed to upgrade Wrocław as a reloading junction.

After World War I Wrocław was the most overcrowded contemporary German city. Municipal authorities launched a large-scale housing relief project. At the time a number of building societies came into being: *Siedlungsgesellschaft Breslau A.G.*, *Siedlungsgenossenschaft Eigenheim Eichborngarten*, and others which erected housing estates in green areas on the outskirts (Sepolno – Zimpel, Popowice – Poepelwitz, Grabiszyn – Eichborngarten). The idea of peripheral estates addressing the so-called *Durchgrünung* principle was promoted by a Municipal Building Councillor Max Berg. This trend was initiated through an urban competition for the Great Berlin (1910) as well as the British idea of “garden-cities”. Berg's idea, published in 1921, was for a tripartite division of the city into: 1. a residential district; 2. the city – for business and work; 3. a cultural centre.

Max Berg himself, with a Municipal Urban Councillor, Alfred Scholtz, prepared several plans for Wrocław's devel-

opment. Before World War I, as early as 1912, Berg designed first suburban project in Grabiszyn (not realised). (Fig. 1)

After the war Berg, collaborating with Moshamer and Konwiarz, authored a de-



Wrocław, Grabiszyn, first peripheral housing estate by Max Berg (1912)

sign for a rebuilt downtown area, as avant-garde as it was controversial. His project provided traffic improvements owing to an inner commercial ring road and connecting it with a redesigned Freiburger Station. Berg designed huge skyscraper office buildings situated on large squares, on water, in the Market Place, and near railways so as not to take light from other buildings. Concentration of administrative functions in high office towers was designed to provide apartment space in the



The fragment of competition project entitled „Land Reform“ by Adolf Rading (1922)

city area, at the time largely occupied by offices. Berg attended to the problem of green areas and designed a Central Park on Bürgerwerder supplying oxygen to tightly built-up downtown districts. This project, however, was never realised.

In order to relieve a housing shortage, Wrocław's authorities undertook to expand city limits. These projects were outlined in the Masterplan, elaborated by Fritz Behrendt from the City Development Office in 1924, following a town planning competition for the development of Wrocław (1921). The jury of the competition consisted of such authorities as Max Berg, Professor Paul Bonatz from Stuttgart, Professor Hermann Jansen from Berlin, Professor Bruno Mühling from Berlin, Professor Hans Schumacher from Hamburg.

None out of the 40 submitted designs was awarded the first prize. In the main topic group the jury decided to award five outstanding works equal prizes of 26,000 marks each. One of them, an unconventional design performed by Professor Adolf Rading of the Fine Arts Academy in

Wrocław, entitled „Land Reform“ *Bodenreform* was given an especially enthusiastic welcome. In the group of special topics three works, devoted to special solutions in railway system, industry or the Old Town refashioning, won honours.

Three other works were purchased, including a design which soon became famous in the whole of Europe, entitled „Satellites“, and created by Ernst May and Herbert Boehm from Wrocław. (Fig. 2)

Housing solutions divided submitted works into two opposite groups. The first represented a tendency which might be called academic – it promoted family housing with gardens, concentrated in island-estates, surrounded by green areas, or adjacent to existent built-up areas. Extreme specimens of such a solution are to be found in Ernst May's „Satellites“, which addresses Howard's idea of a „garden-city“, and the „satellite“ expansion project launched by Unwin. May proposed strict limitation for Wrocław as a mother city, combined with surrounding it by a constellation of satellite estates, separated from the city and from one another by

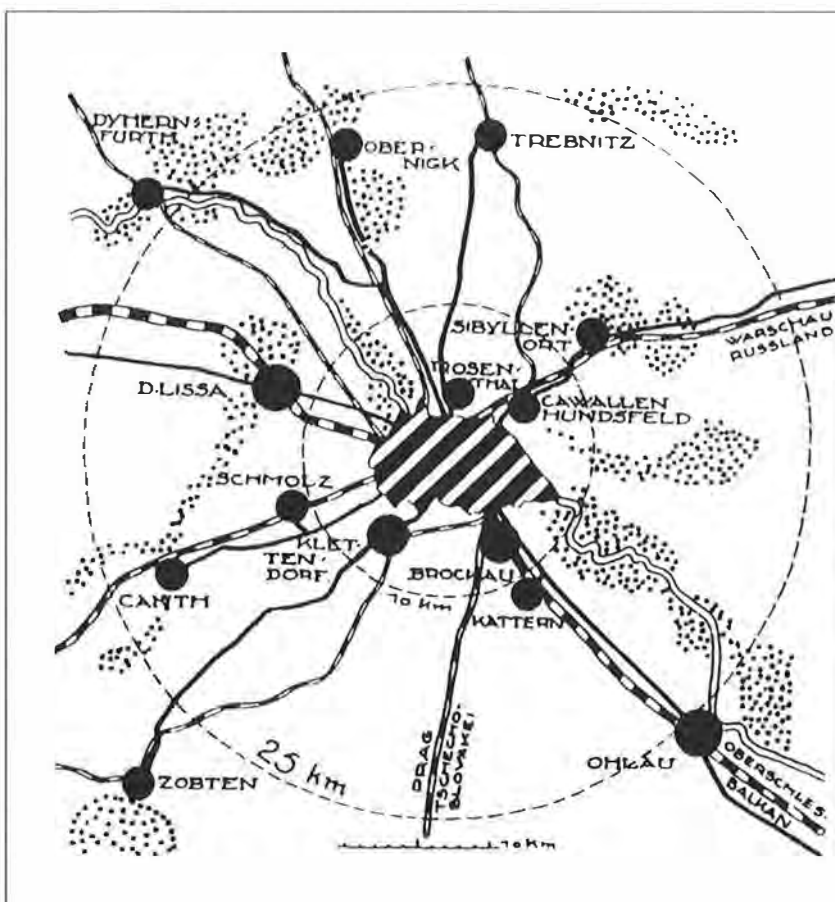
green belts. Each satellite was designed as a city of 50,000–100,000 functioning as a residential or industrial place, or else as a combination of the two. (Fig. 2)

Rading's concept, representative of the group of „flexible“ solutions, was quite different. Rading gave up the idea of houses with gardens and instead promoted multi-storey buildings with communal green areas. Unique housing complexes, built on zigzag plans, were located on vast areas, accessible from residential streets, and far from busy downtown traffic routes. Lack of individual gardens was compensated for by allotments. (Fig. 3) Rading opted for an elongated shape of the city to emphasise the natural „life-giving“ transport route along the river and railway, in contrast to other architects who enclosed the city in circular limits.

Concepts presented at the competition as well as in Berg's and Scholtz's previous urban plans built foundations for the first Masterplan prepared by the Bureau for the Development of Wrocław, chaired by an outstanding urban planner Fritz Behrendt.

According to the new *Flächenaufteilungsplan* the city was supposed to occupy an area 5.5 times larger than before, i.e. also more than planned at the competition (contemporary area was 4,920 ha; 20,000 ha – at the competition; 27,300 ha according to the Masterplan). In Behrendt's plan the city was to be elongated and spread along the river and the vital economic route, from the south-east to the north-west (like in Rading's plan). The design provided for two new river ports connected with the newly designed industrial areas: 1) in the north-east, based on a new canal with an estuary in Rędzin (like in Gross-Briske's plan), 2) in the west in Maślice (like in Heiligenthal and Arntz-Dorfmeier's).

Railway cargo traffic functioned owing to two marshalling stations in Brochów (Brochau) and Żerniki (Neukirch). Two new railway bypasses were opened: western, with a ramification towards Sobótka, and a northern one. A railway ring was open on flood territory in the north west. Housing areas, as in most competition works, were grouped in the form of enclave islands surrounded by green areas. Municipal traffic was improved owing to



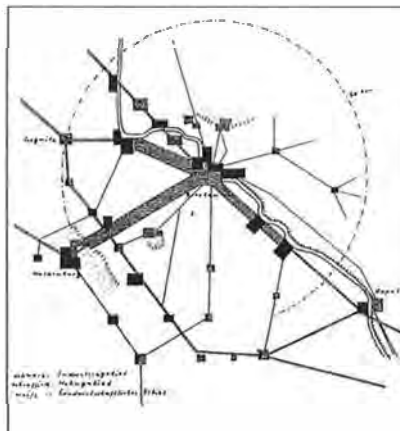
The Satellite urban system presented by Ernst May in the „Memorial of the Rural District Wrocław” (1925)

a new ring road. Major green recreation areas were planned on swamps along the Oder, the Oława and other rivers in the Wrocław region. Recreation areas, woods, meadows, arable land, allotments, municipal parks, promenades and cemeteries created a green network which penetrated the city.

Planned population density was 36 persons/ha (gross) and 158 persons/ha (net), whereas in the contemporary Wrocław actual parameters were 114 persons/ha (gross) and 381 persons/ha (net).

Urban planning utilised photography. Urban plans of large city fragments were performed directly on aerial photographs prepared by the Institute for Aerial Cartography in Wrocław, which ensured a more accurate map projection.

The *Flächenaufteilungsplan*, a document created by municipal authorities which allowed preparations for expansion of city limits, raised protests on the part of the rural district interested in preserving its sphere of influence. In March 1925 a rural district councillor Bachman and Ernst May issued



Concept of housing stretches connecting major industrial centres by Adolf Rading (1924)

a “Memorial of the Rural District Wrocław, Concerning Incorporation of Suburban Communes into the City of Wrocław”. As a chairman of the *Schlesisches Heim*, May promoted housing projects on the terrain of suburban communes. At the same time, as a disciple of Raymond Unwin and a socialist by belief, he promoted the satellite model of development of large cities, which in his view guaranteed the only chance for a healthy existence of city dwellers.

Justifying his choice, he quoted results of the International Conference on Urban Planning in Amsterdam (1924), where the method of satellite decentralisation was recognised as a recommendable way of expansion of big cities so as to avoid excessive expansion into giant organisms. In his competition project, May, as he himself admitted, was unable to complete and fully present the principle of satellites, due to area limits obtaining in the competition (10 km in radius). In the memorial, May presented a concept of a satellite urban system, 20–30 km away from Wrocław. (Fig. 4) Both Wrocław, as a mother city, and satellites should be limited in space and surrounded by natural landscape. The number of inhabitants in each satellite was 50,000–100,000.

At the same time in the professional and general press Adolf Rading presented his studies of the shape of the city developed along industrial and settlement routes, taking into account regional links.

May and Rading criticised each other's concepts. There was a conflict of two powerful personalities, two great personages of the world of architecture and urban planning: Rading – an artist, opting for primacy of natural vital forces, and May – a social activist, focused on providing the best possible living conditions for people.

Rading believed that the form and type of a city was influenced by the forces of economy and natural circumstances. Therefore he found it expedient to define these factors and accordingly fashion the city's development. Rading's idea was that the great contemporary industrial city could be conceived of only as a part of a whole. By way of exemplary study, he analysed Wrocław along with a 60-km sphere of its influence. In conclusion he created housing stretches connecting major industrial centres. The first, along the vital traffic and railway route, south-east – north-west, Brzeg-Wrocław-Malczyce; and the second – Wrocław-Jaworzyna-Wałbrzych, an industrial centre in the Karkonosze region. (Fig. 5)

To Rading, May's satellites were but an empty slogan. Out of revenge, May criticised Rading's expectation of industrial development and housing on the line

Wrocław-Wałbrzych, justifying his view with severe workforce lay-offs in Wałbrzych at the time. May was right to predict a collapse of the coal-mining industry in the region which took place in recent years. Yet settling trends are still a currency there, owing to a changing profile of the region, which shifts from an industrial into a tourist area.

World War II caused extensive damage to the city, coupled with a break in cultural tradition due to the ousting of German population and immigration of Polish population from the eastern territories annexed by the Soviet Union. Changed political conditions meant also different developmental trends. A traffic connection with Warsaw became one of the major concerns.

The planning after the War was aimed at reconstruction of the 80%-ruined city. Tenement houses in the Market Square, the Solny Market, the Town Hall and churches were rebuilt. Devastated 19th- and 20th-century districts were replaced with modern projects erected in a totally new urban order.

Studies of modern planning during the Modern Movement are relatively recent. A study prepared by the author of this paper, commissioned by the municipal authorities and entitled "Directions in the Development of Wrocław in Realised Urban Projects and Plans of the Period between the Wars" provides comparative and auxiliary material for a new *Flächennutzungsplan* which is in the process of completion in the Bureau for the Development of Wrocław.

A new outlook upon urban development of Wrocław is attendant on economic perspectives of the city opened by systemic changes in Poland. The first stage of this task was a report on "The Traffic System in Wrocław in the Aspect of Its Development

and Structural Transformations" carried out in 1991 by Professor Tadeusz Zipser from Wrocław Technical University, commissioned by a young local government of the city. This document enabled overall estimation of existing urban projects, such as the General Plan elaborated by the architect Włodzimierz Szostek in 1988. This report also shed light on the forgotten developmental potential of the city, such as a band-shaped settlement system situated along the line: Wrocław-Jaworzyna – Wałbrzych, as well as improvement of the city's structure owing to new centres. Zipser's concept provided for new traffic connections, such as an industrial thoroughfare to connect exit routes from the city to the west and to the south.

Subsequent urban projects performed by a team directed by the architect Andrzej Stupak in the Department of Spatial Development Planning of the Municipal Office, repeatedly addressed the report, mainly in the aspect of planned activities, which effected "The Foundation of the General Plan of Wrocław" completed in 1994. This project took into account the objective of transformations, defined by Professor Zipser, by way of comparison with achievements of inter-war urbanism in Wrocław. Functional affinities to Rading's concept of development towards Wałbrzych were highlighted in this project. At present works aimed at a new *Flächennutzungsplan* are continued by the Bureau for the Development of Wrocław created for this purpose and run by Professor Zipser. In the search for a "Wrocław way of habitation" planners keenly refer back to the plan of 1924, promoting island garden projects, such as Oporów and Klecina.

Unfortunately, in previous years Wrocław was built up by several apartment

block estates which are not only non-dweller-friendly, but also located in a way that effectively eliminates extension of the traffic system and a wedge- and beam-shaped system of green areas from the first General Plan.

Studies of the Modern Movement familiarised present-day architects with beginnings of modern urban planning in our city. They also opened possibilities of partial, at least, continuation of urban concepts from that time, which gives Wrocław a chance for integration in time and space.

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Oswaldo Arthur Bratke: Two Urban Challenges in the Amazon

In the 1950s, one of the outstanding architects of Brazilian modernity, Oswaldo Arthur Bratke (born 1907) planned two settlements projected to support the manganese mining structure in the Amazonian region, at the same moment as the construction of Brasília, the new capital of Brazil. Vila Serra do Navio and Vila Amazonas were developed by a Brazilian private enterprise, the ICOMI, in the State of Amapá, in the north frontier of the country, 1.920 km from Brasília and 2.820 km from Rio de Janeiro, under the Equator Line. The determination involved in mining in the heart of the Amazon jungle evokes epic narratives: a combination of adventurous pioneers exploring the unknown territory, and confident entrepreneurs willing to conduct a complex process planned for fifty years, but an endeavour that would endure much more than a lifetime. The enterprise developed by the ICOMI, led by the engineer Augusto Trajano de Azevedo Antunes, associated with the American company, Bethlehem Steel, extracting manganese in a site known as Serra do Navio, must be considered an extraordinary endeavour in Brazil in the second half of the 20th century. The singularity of this venture might not be attributed merely to the aim of a trivial quarrying of mineral resources an activity that moulded the South American landscapes ever since the colonization of the New World. The ICOMI obtained the privilege of exploring for manganese for the fifty-year span from 1953 to 2003 in an

inland site 200 km from the city of Macapá, the capital of the northern state of Brazil, at the bank of the Amazon River. The scope of such a task demanded careful strategy, with the construction of the mechanical and industrial facilities for processing manganese, the transporting system (railway, port) and the infrastructure for all the people involved in the enterprise: permanent settlements with urban qualities, with their functional, symbolic and social denotations.

A very precise date symbolizes the start of the urbanization labors: on October 24th, 1955 the company and the architect Oswaldo Arthur Bratke signed the agreement on the project of Vila Serra do Navio the main upcountry urban structure and Vila Amazonas the district next to the Macapá harbor. This document includes a very significant formulation: "Amidst the works to start, the projects of urbanization and the related actions stand out not only for their economic value, but mainly for their great social reach." The planning involved some very complex problems, among them:

- 1) to elaborate the urban design, accommodating the company's requirements and the necessity to create a new sense of urban community in a short time, bearing in mind future inhabitants with no roots in the place a true challenge in the case of the inland town, an entirely isolated settlement with limited means of communication;
- 2) to insert a self-sufficient urban structure in the Amazonian environment and accommodate all the buildings to the equatorial rainforest ambience;
- 3) to design all the buildings: housing, lodgings, guest houses, schools, hospitals, offices, commercial, leisure and communal centers, sporting facilities, church, as well as public and domestic electricity distribution system, water supply, waterworks, fire-protection, drainage and sewage disposal schemes;
- 4) to analyze the available construction material in the region and assign the procedures to local manufacturing or have them provided from the other parts of the country or the outlands;

5) to develop all these tasks in a short term. The ICOMI's schedule stipulated that the main urban plans should be presented in 60 days, and subsequent architectural and technical definitions in no more than 20 months. The company furnished a brief urban program – the main centre for a population of 2,500 people, without establishing any previous town pattern. The first step for Bratke was to research and familiarise himself with other similar urban experiences. He visited some American company towns in Venezuela and Trinidad and was surprised. As he put it: "No one settled real towns. They defined a kind of main street and put some commercial establishment there to sell things for the poor workers. The housing for the bosses was very good; for all the rest, very precarious." These permanent settlements were true camps, with trailers and temporary shelters as housing units. A centre with urban functions, but no urban life. The architect did not find any model to follow up in his journeys, but reports. Published by the companies provided Bratke with valuable information. The visits were profitable in terms of a search for models, but he did record some failed schemes from which he learned how not to establish urban agglomerations. Bratke himself was the person responsible for almost the complete arrangements and sizing of both nuclei. He systemized all information concerning the prerequisites necessary to proportion the centres, collating tables: demographic and population provision data, age-group composition, educational demands, food reserves and consumption estimates, leisure habits and frequency, etc. The architect designed a core in Vila Serra do Navio in the sense proposed by CIAM 8 in 1951, as the heart of city life. The health care system was conceived by professor Paulo Cesar de Azevedo Antunes, a Brazilian specialist of the World Health Organization. The architecture of the hospital and health centre followed the most advanced thinking in preventive medicine at the time, and these were the most advanced

and equipped medical units of the Amazonian region. The good bioclimatic performance of the buildings resulted from a careful analysis of the climate factors of the region and a pragmatic acknowledgement of indigenous practices to overcome the equatorial environment. It was the first time that an architect systemized architectural bioclimatic features for Amazonian buildings. One of these features, a kind of venetian blind made of timber, was widely imitated all over the North of Brazil. The selection of materials and construction systems derived from a rational and careful analysis of economical and empirical variables: scheduling, expenses, availability, waste minimizing, transport vicissitudes. A substantial part of the building material was brought from the northeast and southern industries of Brazil and from the United States. There was no good clay for brick and tile manufacturing in the region. Cement block-making machines were imported from the United States to produce hollow-wall blocks, and asbestos roofs substituted traditional tiles. Bratke was aware of the incompatibility of the thermal efficiency of such materials in that climate and compensated for these handicaps by taking advantage of the buildings' situation facing the prevailing winds, and designing a fine natural indoor ventilation system. The



scarcity of adequate stone reduced the use of reinforced concrete. The building structures were designed to explore the potential of timber, but as there was no technical data on rain-forest woods, the architect selected some 30 or 40 samples for laboratory tests in São Paulo. The architect was also co-responsible for the strategy of importing construction supplies. For instance, asbestos roofs were produced in Recife (in the northeast of the country), freighted more than 2.000 km in trade-route ships to the Belém harbour, and then carried a further 300 km in river-going vessels to the Vila Amazonas port with half of the cargo being damaged in the process. They then decided to ship directly from the Recife harbour to the port of Vila Amazonas in lighter sailing crafts. All the cargo arrived undamaged.

There were no workmen available for the building. The engineer responsible for the construction, Luiz de Mello Mattos, developed local workmanship by training natives in carpentry and other skills. All these people thus trained in Vila Serra do Navio remained in the region, living by their new skills. The short time available to conclude the works determined that all the houses should be consigned complete and furnished. Some of the domestic furniture was designed by the architect and manufactured in the region. There were different types of dwellings for different types of workers, according to hierarchy and family patterns. Bratke had paid particular attention to conceiving housing for lower-level workers. These people were recruited mainly among natives and were not accustomed to urban values and ways of living. The architect spent some time navigating the rivers, living with the indigenous





inhabitants along the banks of the creeks, observing the habits of the Amazonian people. To attenuate the cultural shock in the housing design he had to find a point of equilibrium between the company's assets and regional behavior patterns. The hammock was commonly used all over the region and the bedroom design was dependent on the decision of whether to preserve this custom or to impose the bed. Visiting isolated places, the architect became aware of the high importance of the bed in the social scale of the people of the region, and it was the bed that prevailed in the final design. Toilets were unfamiliar house fittings in Amazonia. People used to defecate outdoors in thickets, and there was no custom of indoor bathrooms. The architect designed two types of house with a toilet room enclosed in the volume of the building, but with external access, in the manner of an outhouse with privy. In the construction, a doorpost was left inserted in the wall between that compartment and the inner service area, so the dweller could, at any time, open this wall and have a direct passage to the toilet. In a recent visit, a young woman born in Serra do Navio asked the architect why there was no entrance to the toilet from indoors. On January 8th, 1960 Oswaldo Bratke

signed the last quittance of the honorarium for the urbanistic and architecture services. Vila Serra do Navio and Vila Amazonas were virtually ready to shelter all the people involved in the manganese mining. The urban settlements promoted by the ICOMI have a scope that transcends the economic profits of mineral exploitation. Contrary to the general practice of establishing rootless settlements as company towns, Oswaldo Bratke planned two urban nuclei to be permanent urban and regional foundations. Vila Serra do Navio's residents used to say that they lived in a paradise: a kind of controlled paradise with all the best social facilities serving the inhabitants; education, leisure and shopping facilities almost unknown in all the north region of the country; the best hospital and health care facilities, outdoing those of some capitals. After 35 years of existence, Vila Serra do Navio is an accomplished example of rational architecture and urbanism with an excellent level of acceptance from both the company and the community. Now that part of the workers of ICOMI are retired and living out of the town, former dwellers feel nostalgic. The exploration of mineral resources by ICOMI is coming to an end: the grant for mining expires in the year 2003 and the mining

infrastructure will then belong to the Federal Government. In fact, part of the dwelling and commercial structure of both towns was sold to the former workers or relatives. The health center in Vila Amazonas is no more under the control of the company. The former guest houses and clubs are now autonomous hotels. These changes were part of the ICOMI logistics to convert a company town into a normal town. Vila Serra do Navio is no longer under ICOMI's control. It has become an independent political unit with local self-government and a mayor and a city council elected in 1994.

But the municipality of Vila Serra do Navio is not only the agglomeration planned by Oswaldo Bratke. It encompasses other precarious districts in the neighborhood that were not within the ICOMI area and which lack even a minimum urban structure. This is a very contrasting framework, an envious proximity which threatens the high architectural, urbanistic and social patterns of the ICOMI settlement.

With the manganese deposits now exhausted and the goal that originated the creation of an urban centre in the heart of the rainforest achieved, what does the future hold for Vila Serra do Navio? How will an urban centre survive that was born under the sign of an activity that is dying out? There is a proposal that this, the most consolidated inland urban centre of the State of Amapá, should be the pillar of regional improvement and the growth of new economic activities. The IRDA an institute created to develop policies to maintain and valorize the legacy of the ICOMI endeavour and enhance such initiatives, proposes Vila Serra do Navio as a headquarters for a scientific research and ecological tourism centre. And that organization is concerned by changes in Bratke's architecture and is now discussing ways to preserve the urban and architectural qualities of the town. The enterprise of mining manganese, symbolized in Vila Serra do Navio and Vila Amazonas, was a complex venture mobilised with a great amount of resources, people and sacrifice. It is a testimony of rational, resolute and disciplined decision-making not free from all manner of criticism, but yet an attempt that decisively engraved the human presence in Amazonia.



Megastructure and *Genius Loci*: The Architecture of Cumbernauld New Town

Introduction

In working out DOCOMOMO Scotland's choice of potential candidates for the International Selection register, we attempted to reconcile the potential conflict between the two aspects of modernism around which this conference is polarised: the universal and the particular. We tried to treat this tension as not just a burden but also as a creative opportunity; and to do this in respect not only to individual monuments, but also to entire planned areas - something which will from now on be above all the concern of the ISC for Urbanism.

Of all aspects of the Modern Movement, it has been the environments of mass urbanism, especially those of the post-1945 period, which have in recent decades suffered the most severe criticisms of alienating universality and neglect of *genius loci*. In this paper, by contrast, I shall argue that the 1950s and 1960s were a time when some very place-specific planned environments were designed, distilled from a mixture of modern universality and consciously "national" or "local" elements. I shall focus on the example of Cumbernauld, which is one of a series of five "new towns" built in Scotland after World War II, at almost exactly the same time as the two Brazilian towns discussed in Hugo Segawa's paper. At Cumbernauld, we witness a mixture of

avant-garde 1950s/60s international modern tendencies on the one hand, and, on the other, the beginnings of a conscious, almost postmodern, vernacular evocation of place. The result of this mixture is very distinctive, and itself highly "place-specific". In the following pages I shall first discuss the context and the design of Cumbernauld. Then, I shall more briefly consider the present-day problem of conservation of this urban ensemble.

First, a little background. The New Town programme in Scotland was ultimately descended from the turn of the Century garden-city ideal, reinforced by wartime ideas of "strategic planning". The new towns represented a deliberate, government-supported diversion of reconstruction effort away from the Scottish municipalities, headed by Glasgow, whose dominant local-political concerns dictated a repetitive, mass-building approach to Modernist housing on their part - not unlike the formula in Eastern Europe after 1945. The Scottish New Towns were built by non-political New Town Development Corporations, who were assured of privileged government finance and were able to design their new environments in a more calculatedly "architectural" manner.

The first Scottish new town, East Kilbride, was a typically 1940s compromise of the kind found all over Western Europe, between the pre-Modern Garden City pattern, and the type of CIAM early modern pattern between the Wars: both these shared a desire to reject the dense old 19th-century city. At East Kilbride, there was an insistence on open space and greenery, relatively low density, housing zoned into segregated "neighbourhood units", and restrained modern design.

Internationally, however, these patterns came under increasing attack in the 1950s. Avant-garde socio-architectural critiques like those of Team Ten or the Situationists had already begun to criticise them as socially and visually crude, and to claim that the growing affluence and complexity of society demanded more dense, sophisticated urbanist responses. One possible method was to go back and update futurism with the idea of flexibility for

the consumer society. Here, one key image was provided by the "megastructure" - an artificial landscape governed by the ideals of communication and flexibility: a massive rigid frame with shifting, changeable contents. Another possible route to complexity was to look to the previously reviled old, muddled industrial cities, and take inspiration from complex "traditional" community. All this is essentially an international story, which will of course be familiar to readers of this paper: it is part of the post-war phase of development of canonical modernism.

In Scotland, Cumbernauld became a testbed for these international, avant-garde ideas of European modernism after the War. First of the second generation of Scottish New Towns, it was designated in



Town plan of Cumbernauld as existing in 1965, showing over half of the housing zone already developed (north is top left).

1955, and built from 1957 onwards, especially in the 1960s. Its designers, mostly working within the (in public-architecture terms) fairly avant-garde architects office

of the Development Corporation, reacted against the planning patterns of the previous New Towns. They aimed to get away from segregated "neighbourhoods", to cluster the town in a way which would be more dense, yet would satisfy the demands of a motorised society, with grade-separated main roads, and a separate network of foot-paths.

Cumbernauld was located on a ridge-like hill, with the Town Centre at the summit. There was limited space allowed around the Centre for expansion, but around that space, as closely as possible, were clustered the residential areas, mostly in low-rise groupings of rather "traditional" appearance, but punctuated with high towers. The overall form was strikingly different from both the CIAM rectilinear pattern and the semi-modern, semi-Garden City pattern of the earlier new towns. It was typical of international 1960s thinking in its rejection of segregated urbanism in favour of a continuous, carpet-like pattern. But its hilltop location was very distinctive, and provided the most basic element in the town's intense *genius loci*.

Cumbernauld Town Centre

I shall now discuss, in greater detail, the town's two main urban-design components: the Town Centre and the housing zone. The Centre was designed from 1958 and the first stage was built in 1963-67. The task of devising its design concept was given to a senior architect in the Development Corporation, Geoffrey Copcutt – a highly

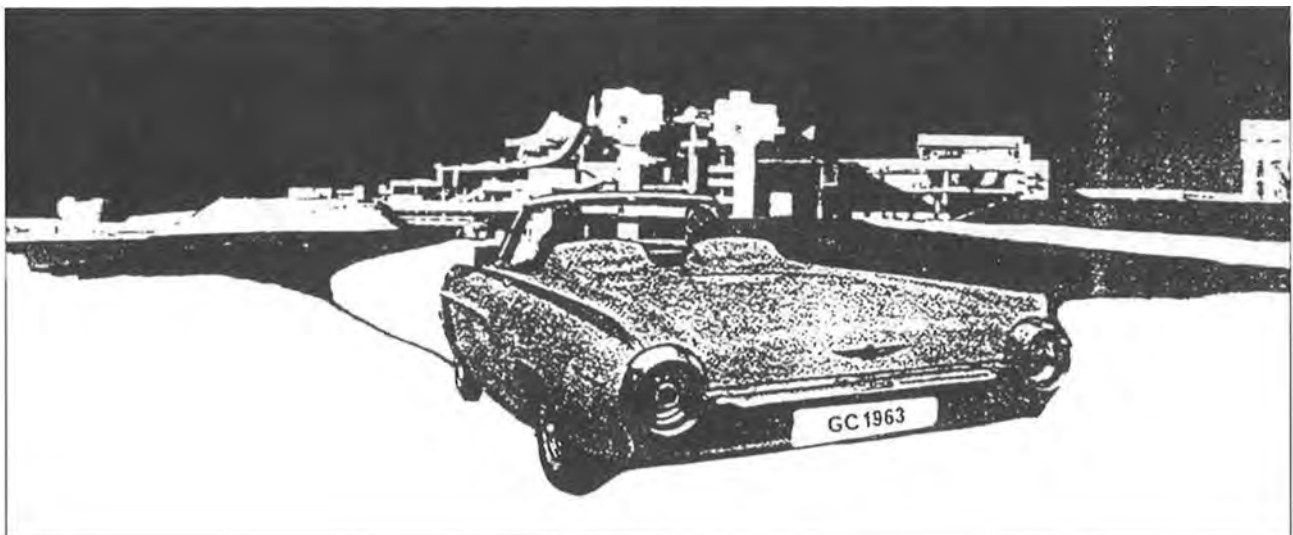


Cumbernauld Town Centre, 1963 perspective of scheme as originally proposed, showing expressway road running underneath Centre. In Copcutt's own words, 'Roads come into and through level, and all decks are perforated and interpenetrating, resulting in relatively narrow bands of development with continually changing views out of and through the Centre'. (Architectural Design, May 1963)

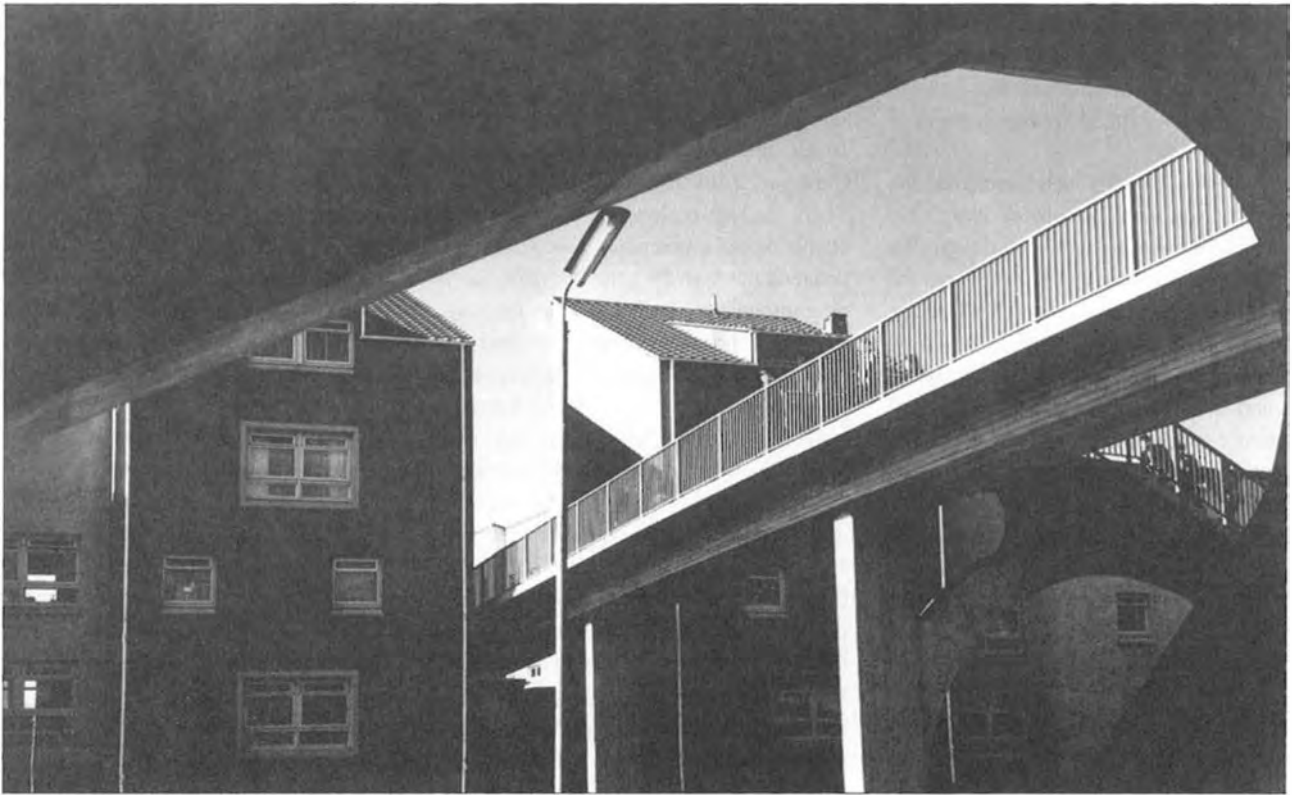
individualistic, flamboyant designer. His concept of the Centre was as a megastructure. Cumbernauld Town Centre was the first large megastructure actually built in the world. As such, it pioneered, in an exaggerated form, features which would later become commonplace in countless covered-in commercial centres. It was linear and extensible; it was multi-function and multi-traffic-mode, with vehicle routes slicing through its centre, including a fast divided-expressway, and pedestrian access ways crossing it at right angles. Its overall form, a kind of stepped or mound-like section, was very

typical of the 1960s reaction against clean, freestanding CIAM-style blocks. Yet in no respect did the Town Centre avoid monumentality; rather, it theatrically exaggerated it. For, boldly rising through the main concrete structure, a separate row of columns supported a freestanding range of pent-houses stamped across the top – an image inspired, perhaps, by Rudolph Schindler's Lovell Beach House, Los Angeles.

Copcutt's descriptions of his concept in the early 1960s were typical of the avant-garde cosmopolitan consumerist-rationalist language of those years, which mixed



Cumbernauld Town Centre: 1963 montage by Copcutt including American car.



Monumental vernacular: Abrohill 4 housing area, Cumbernauld (1968-70), designed by architects Wheeler & Sproson.

the inspiration of US West Coast modernity with the more intense images of futurism. In an article in the May 1963 issue of the periodical *Architectural Design* (an issue devoted to Cumbernauld), he described the Centre as "a single citadel-like structure nearly half a mile long...a drive-in town centre...a vast terminal facility". "All decks are perforated and interpenetrating... all planes are inhabited both above and below until the final statement is made by long terraces of penthouses. The basic structure of parallel linked frames creating a linear core within the scheme is able to accept... erupting forms, a variety of furnishings and a kaleidoscope of advertising." He speculated that, if pedestrian-based shopping became obsolete "in the extreme future", then "the centre could become a gigantic vending machine through which the motorized user drives to return revictualled."

There is no question, I think, of any of that being an evocation of genius loci, or of "national" Modernism! Copcutt's individualism belonged to that kind of modernism which stressed above all the role of the artist/visionary in contributing to international avant-garde "progress". His own

world-view was summed up in a montage he made for an architectural journal, showing the Centre with a large American car in the foreground, its numberplate reading "GC 1963" (his own initials). Only the first phase of his design for the centre was fully built, but even that was later hailed by Reyner Banham in his book *Megastructure* (1976) as "the canonical megastructure."

The Housing Zone

The prima-donna cosmopolitanism of the Centre contrasts strongly with the surrounding belt of housing. This was treated, in effect, as a muted backdrop to the fireworks of the Town Centre. It was a typical 1960s continuous "carpet" or "mesh", low in overall height, but deliberately more dense than the Garden City or CIAM patterns. Its governing concept of space was, on the whole, that of Sitte-like enclosed space, rather than of CIAM or City Beautiful open space. Cumbernauld's housing types - terraced cottages and low flats, with some high blocks - were not dissimilar, as dwellings, to the early new-town housing of (e.g.) East Kilbride; but they were treated in a more dense and place-specific way.

The town was divided into a northwest side, facing over a steep escarpment across to the Campsie Fells, and a flatter southeast side, sloping gently away from the town centre. The southeast side was given a more homogeneous and more overtly Modern treatment: many of its terraces of houses were flat-roofed with elements of *Zeilenbau* planning, and strong rectilinear design. The steeper northwest side was given a more abrupt and even picturesque layout. Some of the low blocks were in dense rows with steep, sweeping-down roofs and rows of repetitive outshots, suggestive of the 19th-century miners' housing found in nearby areas, or the older housing in small Scottish industrial towns. Others, especially in the sharply contoured Seafar area, comprised intricate courtyard-type arrangements of dwellings with split-level plans.

An extension area (Abrohill), begun in the mid-1960s, was located separately from the main housing zone, but was designed in the same low, dense manner, interspersed with woodland. Another separate, but nucleated area was the original Cumbernauld village, standing about 0.5km to the north: this dense grouping of

mainly 19th-century housing was infilled around the edges with new development, and provided an immediate, if loose precedent for some of the new patterns of the town.

The taller blocks which punctuated the low housing were of a more straightforward CIAM Modernity in their design. The point blocks were concentrated on the northwest side, dotted among the terraces, to provide a skyline "image": they were 12- and 20 storey towers built from 1964, using the contractor-designed "Bison" prefabricated concrete panel system. The medium-rise flats were more evenly interspersed. Some were arranged as isolated strips, others in denser squares. One group, Kildrum 5 (from 1959), was planned in hexagonal squares clearly indebted to the 1940s precedent of Grondal, in Stockholm.

Extensive use was made of landscaping to accentuate this "localisation" of Cumbernauld's new housing: this was designed by the Development Corporation's own landscape architect. The southeast side was treated as hard and urban, with paved squares and streets, while the northwest was dealt with in a manner inspired by Scandinavian landscaping, intended to heighten the contrast between the town and the open country: a new "forest" was interwoven with the dwellings, together with wild features like clumps of rocks.

The relatively muted character of the housing areas was emphasised by the collective way in which they were designed by various "teams" within the Development Corporation architects department – a sharp contrast with the individualistic work of Copcutt within the same office. That contrast, in turn, seemed to reflect the polarisation, within modernism, between extreme artistic individualism, and self-effacing concern with "programme".

Internationally, Cumbernauld as a whole enjoyed a period of fame in the late 1960s. For example In 1967, the American Institute of Architects awarded it the "R S Reynolds Memorial Award for Community Architecture", in competition with Tapiola and Stockholm: the jury hailed the town as "the most significant

current contribution to the art and science of urban design in the Western world. Cumbernauld... is... designed for the millennium": "the dreams of the 1920s and 1930s are being built on a hill near Glasgow." (AIA Journal, July 1967, pp. 51-8). The high contemporary international estimation of Cumbernauld, I would argue, stemmed not from the simplistic expression of cosmopolitan norms, but from the way in which its urbanist concept combined the international and canonical with the place-specific. We can contrast that with the contemporary building of modern high-rise blocks by nearby Glasgow Corporation for reasons determined by local political demands for housing output: in roughly the same manner as 1960s-80s Eastern European state housing, Glasgow reproduced the early CIAM freestanding tower formula in a massed manner, in defiance of the 1960s western, late modernist architectural trends of complexity. We can also contrast Cumbernauld with the longer-term international dissemination of Late Modernist megastructural ideas, which have reached a rather standardised formula today, especially in the prolific building in the Far East: for example, each new housing project in Hong Kong has its own individual commercial megastructure attached!

But the massed building programmes of Glasgow in the 1960s or the Far East in the 1980s/90s, and their relationship to architecturally "respectable" western concepts of urban design, transform the theme of universality versus heterogeneity into a slightly different issue – that of the canonical versus the "debased" or "provincial". That cannot be addressed in this short paper, which has been concerned with the universality-heterogeneity relationship within a strictly "architectural", designer-controlled building programme.

Present-day Conservation Issues

At this point, we pass to the question of conservation. For in Scotland, as part of the general West-European change of opinion against modernism, the estimation of Cumbernauld today has changed dramatically. Today all the nuances we traced above; between different types of modernism, have vanished from any public arena, professional or popular, and have been replaced by a blanket denigration of

modernist environments within the mass media and organised public opinion. Yet at the same time, these environments continue to be inhabited, by their residents, in a way which does not conform to this violent opposition: among residents, there are few calls for mass demolition – a solution arguably just as utopian as the building of these environments in the first place – but instead calls for practical improvements in areas such as maintenance, security and general "image".

While the regeneration of mass housing in Glasgow has included a fair degree of community participation (as also described by Rob Docter's paper, in the case of the Bijlmermeer in Amsterdam), the legacy of centralist new-town administration has so far led to a more dirigiste approach at Cumbernauld, combined with elements of free-market capitalism. The most favoured way of improving the town's "image" involves the reconstruction of the Town Centre: the central expressway is going to be filled in, as are the megastructural interior spaces. In principle, this is hardly a problem, given the importance of flexibility within the megastructure idea!

A more gradual but more serious change, however, is the way that the background unity of the housing areas is being eroded by a process of privatisation and fragmentation. The housing is gradually being sold to owner-occupiers, who naturally customise their homes. New housing of very different character, small brick boxes designed by speculative builders, is spreading on the previously open hills around the dense town. At the moment the Development Corporation can control subsequent alterations to houses that are sold to private owners, but it is due to be privatised next year. So the future of what was a designed urban environment of a very high degree of intensity and specificity seems very unclear. If no steps to protect its area character are taken, then in due course the town will no longer appear a unified "design" of any sort, whether "local" or "universal".

What should be the reaction of conservation agencies to this challenge? Scottish government policy on architectural heritage provides for two general types of protection. First, there are "listed buildings": strictly controlled monuments on a cen-

tralised State register, varying in scale from individual buildings to small groups. Second, there are "conservation areas", which are environments controlled by local authorities, often in collaboration with community groups, in accordance with a range of somewhat looser criteria focusing on general visual image. It is the view of our working-party that the stricter, listed-building type of control, and its accompanying concept of "monument", is not at the moment suitable for large environments after 1945, such as social housing areas, because of both the difficulty of "monument" definition, and the likely lack of public understanding or support for a centralist initiative.

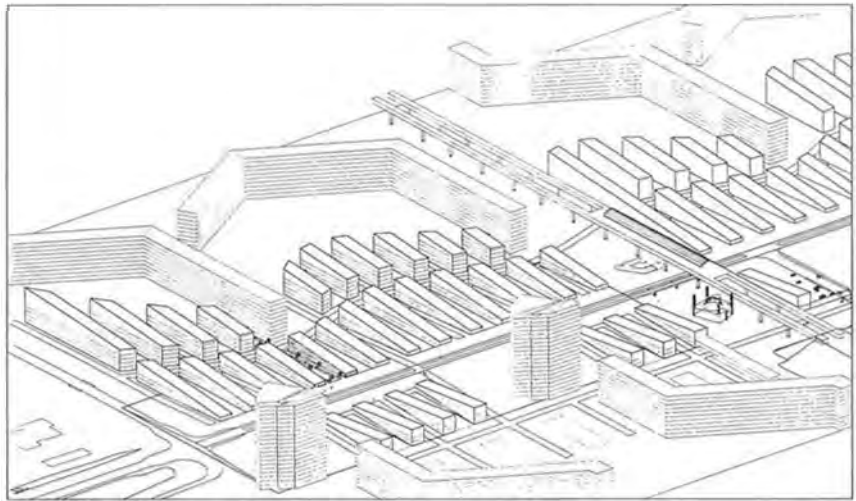
The most fruitful protection method for an area such as Cumbernauld, in our view, is to designate a large conservation area – encompassing the whole original housing zone – and to pick out only the most significant, little-altered individual buildings in that area as "listed buildings". This is precisely what the local authority responsible for the area, and the Scottish government heritage agency, Historic Scotland, are now considering. Hopefully, when we meet again in Stockholm in two years time, and focus on the theme of social building programmes, there may be progress to report in the long-term protection of the social-building urban ensemble of Cumbernauld!

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Post-War Townplanning in Its Mid-Life Crisis; Current Developments in Conservation in the Netherlands from a Policy Point of View

In the past years a number of interesting initiatives have been taken in the Netherlands to investigate and revitalize townparts from the 1950s and 1960s. The Netherlands government is now confronted with the question if, how and when conservation and redevelopment of the period after the War has to become part of a municipality's planning and urban-renewal practice. I will be making some remarks from a policy point of view. It is a standing policy in the Netherlands to stimulate local authorities, planners, architects, owners and developers to contribute to a high-quality standard in architecture, townplanning and landscape architecture. That includes taking cultural historical values into account. This stimulation policy is by priority aimed at new development, but also stretches out to conservation. We prefer to look at conservation as re-designing the existing environment, according to current needs, using existing cultural values and adding new cultural values to the built environment.



A study for redevelopment possibilities in the Amsterdam Bijlmermeer.

The urban heritage of the reconstruction period after the War (1940-1970) currently forms a very specific issue in conservation in the Netherlands. I say 1940, because the making of rebuilding plans began directly after the devastation of Rotterdam (and later during the war for other towns that had been bombed by mistake by the allied forces), but the actual rebuilding began, of course, a few years after the end of the war.

It is well to bear in mind that there is a difference in object and approach between the townparts that were built between the Wars and after the World War II. The neighbourhoods from the 1920s and 1930s are a self-evident object of urban conservation by now, while the urban environment after the War – the physical residue of the CIAM thoughts, so to speak – are a different matter. The War meant a turning-point in thinking about architecture and town planning. That is to say, before the War and after the war there were traditional and modern (functionalist) streams in architecture and town planning. They co-existed more or less peacefully, sometimes fighting each other with words in critical journals or manifestos, but never irreconcilable.

This situation continued during and after the War. There was a market for the traditional stream and one for the modern stream, and work enough for both. In fact they began to exchange ideas and solutions. It would be too much to say they integrated completely, but a close analysis of the designs and buildings will show that

the traditional stream was more modern than it would seem, while even the most hardened modernist would lean on traditional architectural basics and even apply decorations. However, architecture and town planning after the war had more to do with issues such as industrial production and the availability of building materials than with form and design.

This resulted in the main-stream (maybe even style) we usually refer to as modernism after the War (or Americanism). It also has been referred to as "shake-hands architecture". This stream fitted very well the somewhat dualist socio-cultural development. On the one hand there were the old social structures and institutions that had been dormant during the War but still were omnipresent. On the other hand there was room for a new optimism, new visions, the striving for a new world, preferably to be created after the image of amazing America, our liberator and role model.

It is my belief that this field of tension, between traditional structures and ways on one side and the urge to improvement and modernization on the other, appeared to be a very fruitful basis for the new modern western culture we had until not too long ago. "Economic and social growth, based upon a historic socio-cultural layer" may be a good definition of the character of this period.

The two mainstreams, modernism and traditionalism, were also present in the visual arts. Who does not know the unforgettable and impressive way Zadkine ex-

pressed the trauma of the war damage in his statue for Rotterdam? How very different but no less expressive are the more traditional forms used by Van Trac in his never executed design for a reconstruction memorial, expressing the euphoria of victory and society on the threshold of creating a new world.

In architecture sometimes the traditional side was placed in the forefront, as if the war trauma was to be denied, and a building form was chosen that had a close reference to the original (historic) situation. Sometimes the new society and the new city required an image that was futuristic, optimistic, the modern face of architecture.

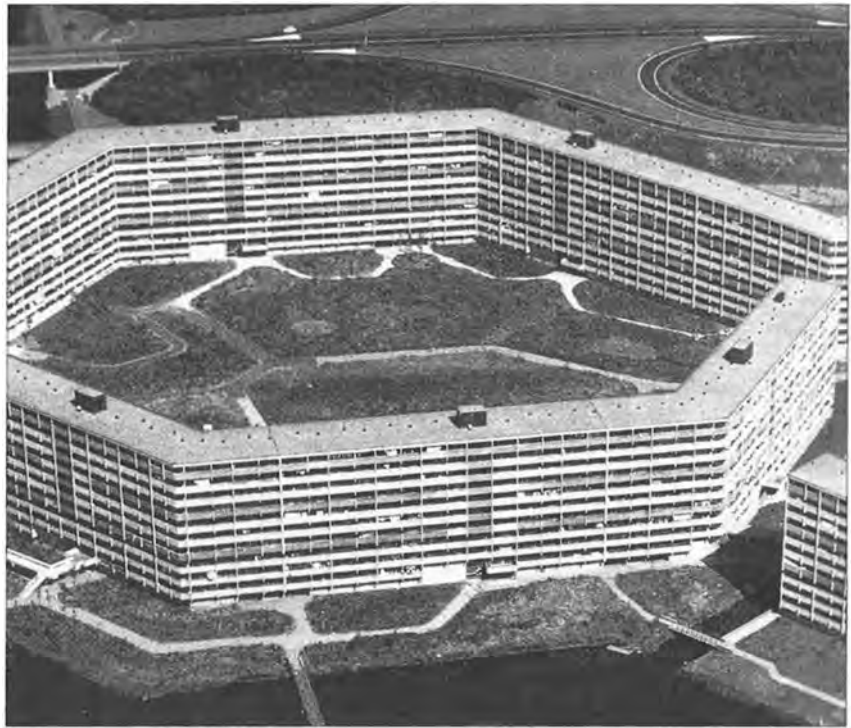
The choice had everything to do with the local cultural character of society. In several small towns that had been heavily damaged during the War, reconstruction plans fell back to what can be considered as a rebuilding of the original building image, according to the principles of the so called "Delft School", as if the demolition had never occurred. The cultural climate in a city like Rotterdam was completely different. Here also the traditional stream of the Delft School was applied, but there was also room for new ideas, for the creation of a new and modern city, as if to benefit from the large-scale demolition.

The devastation of Rotterdam created an interesting socio-cultural phenomenon. The working atmosphere, the omnipresent building activity and the futurist thinking took root easier, it seems, than in other cities that were spared. Rotterdam still has a non-retrospective urban culture, an atmosphere of creation, renewal, progress.

The recent past has not only given Rotterdam a dynamic of life that is aimed at progress and prosperity, it has also resulted in a strange sort of nostalgia for the recent past. It is funny how the townparts that came into being in the 1950s and 1960s are appreciated in Rotterdam in the same way that other cities cherish their mediaeval heart.

This is remarkably different from our experience with the large urban extensions and new towns that have been built in the 1950s and 1960s according to the CIAM principles.

The reconstruction after the War had to provide for quick and adequate housing with – as is well known – scarce materials.



The rigid separation of motorized and pedestrian traffic will be abandoned.

Modern methods of allotment and industrialized building techniques, which had been experimented with in the 1930s, could now be applied on a large scale in order to rationalize and speed up building production.

The euphoria of social, economic and urban reconstruction was a good breeding ground for bringing the ideals of the Modern Movement into practice in the field of architecture and town-planning. Especially on the "new land", the large IJsselmeer polders, and in the large town-extensions, new functional and spatial concepts could be realized. The most important principles were those of concrete constructions in open building strips. The new city was presented to, and accepted by, the public as a new, clean and healthy environment for happy family life.

In general the construction of these new townparts took place in a *tabula-rasa* situation: new polders or building lots outside the city, on flat land where the new infrastructure and building pattern could be projected at will. On the one hand this made a pure application possible of the functionalistic design principles of the Modern Movement. On the other hand, however, it meant a break with the tradition of historic stratification in urban devel-

opment in the Netherlands. The occupation of the "new land", the making of the new city was realized in one go, without a relation with underlying historic physical structures. The existing social connections could, it appeared, easily be transplanted to the new rational residential suburbs. Society was still makable – at least that is what planners, sociologists and architects thought.

Of the social idealism of those days little remains. The ideal city of the 1950s and 1960s has become today's ghetto. It is es-



Public open space will be given new use, to give a new impulse to livability. Photo: Rob Docter



An aerial view of the Bijlmermeer shortly after completion.

pecially in the post-war residential areas that the social, economic, psychological and functional problems of the city are concentrated. High unemployment, ethnic tensions, high crime rates, declining public facilities and technical decay are the symptoms here as they are in urban areas all over the world. The ideal city of the Modern Movement has in many cases not even lasted for forty years.

At first these neighbourhoods met the modern standard of their time and were very much in demand. Nowadays, however, they suffer from a severe lack of public interest. In fact they are now considered to be the low end of the residential market. Symptoms of this identity crisis are a fast decay and increase of unoccupied dwellings, social tensions, petty crime and drug abuse. The situation in some of these neighbourhoods is so serious that their demolition is under consideration.

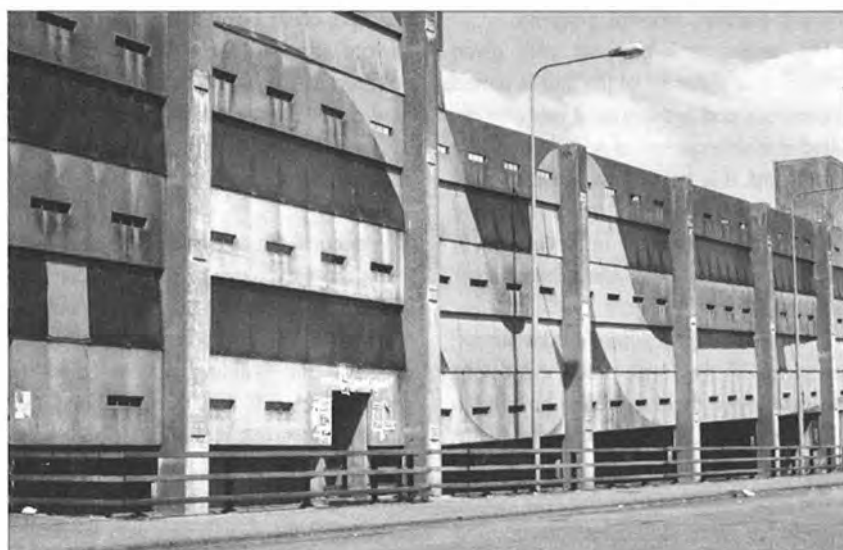
In less than 40 years this originally well-respected and appreciated part of our architectural and urban heritage has ended up in a crisis. The question now is: is there still a future for these neighbourhoods? Can they still provide in the current demand on the residential market? Can they be adapted and renovated for a new and hopefully more prosperous future, or is there no hope at all? In other words, are they just in a mid-life crisis or is this the end of the line for them?

It is our opinion that the ideas of the CIAM are no longer applicable to the present urban society as they stand. They have to be updated or even reconsidered to be able to give answers to present-day problems such as the fast and radical change of social structures, the changes in consumer behaviour or the enormous increase of motorized traffic.

The dwellings are small and lacking comfort, and – in the case of high-rise apartment buildings – the original concept of safety and comfort of the living environment has inverted into a general feeling of lack of safety. Many people who could

afford it have moved away into the suburbs with their more comfortable family houses, leaving the building stock for the lowest income groups, among which are many immigrants.

The redevelopment plans that have been designed during the past years have a number of characteristics in common. The current exercise is in the mixing of functions rather than in functional separation, in designing integration and complexity, rather than social and spatial clarity. The first priority seems to be to diversify the social structure. The second important focus of attention is the creation of employment



This parking will be torn down, to supply space for new developments. Photo: Rob Docter.

by the establishment of businesses in the neighbourhood and the upgrading of public facilities.

Recent studies have been made within the context of the debate on the future of this townpart in which the choice seems to be between radical change or demolition. One of the interesting developments in

other way around: there is a great socio-economic uniformity together with large socio-cultural differences. The divide is the sharpest between autochthones and immigrants. I will not go into that matter too deeply here; the only thing I hope to have made clear is that handling the post-war neighbourhoods is a matter to be dealt

present reality of society. Let me stress that not all of these suburbs have failed. On the contrary; many have survived and still provide agreeable living conditions, mostly for mobile families with young children. But the problems of our present urban society tend to concentrate in the old townparts and in these post-war neighbourhoods, built after the War.

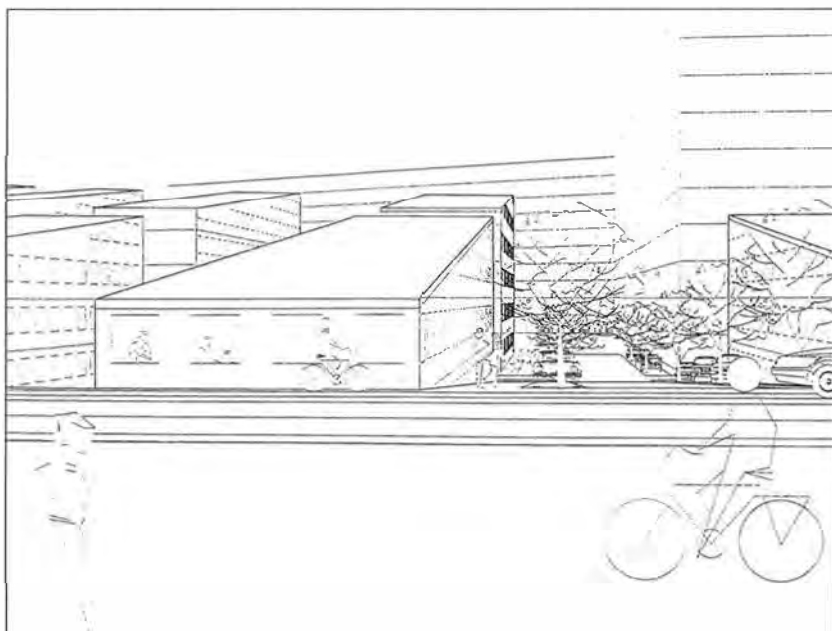
An additional problem is that public appreciation of the Modern Movement is not very great: the buildings and the urban environment are mostly regarded as ugly. There is not a large public affection, as there is with older historic buildings. The striving for preservation is often considered to be an academic peculiarity and has no substantial political acceptance.

It is imperative to further develop the Modern Movement neighbourhoods, as there is no point in preserving them as they are, since they no longer respond to current needs.

There is only one solution: to find a compromise between historic integrity and the need for functional and social adaptation and change. Conservation with consideration for the original intentions is not always possible, but we can always try to bring new life and a new meaning to these neighbourhoods with respect for the underlying range of ideas and using the potentials for further development. In doing this we must not be too dogmatic about the concepts of modernism or functionalism, but we must try to be open-hearted in building on the present historical basis.

This can be done with respect for, and with use of, the major leading principles of the Modern Movement – namely, sobriety, economic use of resources and social and technical integrity. These principles are still of topical interest and can be an important source of inspiration for new design. A contemporary application of these principles can save the urban heritage of the Modern Movement as a social, an economic and a cultural asset.

It will undoubtedly prove to have no more than a mid-life crisis if we give these townparts a second chance and redesign them to fit present needs, in accordance with the original conceptual values.



A study for living quarters, also in the Amsterdam Bijlmermeer. All drawings from Plan Kraaiennest, a study in the Bijlmermeer, Amsterdam. Design: Pi de Bruijn, in collaboration with Laura Weeber and Joris Smits. „De Architecten Cie” (1996).

thinking about the future of these CIAM neighbourhoods is the reconsideration of the allotment principle of free-standing building blocks surrounded by public greenery. Nowadays the principle of the closed building block with a quiet and semi-private inner open space is being reevaluated, because it provides privacy and safety. But this is, of course, a fundamental divergence from the original features.

Many districts built after the War like the Bijlmermeer have mainly two groups of residents: older people that have been living there mostly from the start, and newcomers – mostly young starters on the residential market and immigrants. This causes a rather fundamental problem: originally these neighbourhoods were based upon a clear concept of society and of the kind of people to be accommodated there. They were differentiated in a socio-economic way, but homogeneous from a socio-cultural point of view. Nowadays the situation is exactly the

with by sociologists and economists rather than architects and town planners alone.

It is interesting to see how disaster can bring people together. The crash of an El Al Boeing in the Bijlmermeer in 1992 has been a traumatic experience for many, but it also gave a boost to community feeling. Since then much attention has been given to processing the grief and pain caused by this horrible event, and this attention appears to have had a positive effect on the social appreciation of the neighbourhood. In its turn this has speeded up the urban renewal process. I am not saying problems for the Bijlmermeer are over, but circumstances seem to have changed for the better.

In many cases the rational layout of these neighbourhoods, with separated functions (based upon the stable social conditions at that time), appears to have borne the seed of its own decline: many CIAM neighbourhoods have outlived themselves. They no longer fit in with the

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The Influence of Modern Movement in Argentine Housing. Architectural Types and Urban Result.

Architectural history is usually based on the consideration of paradigmatic buildings that show the evolution of ideals, theory, technique or aesthetics. If we agree that architectural history is just a part of the history of mankind and that this seeks today to reconstruct the whole social, economic and cultural structures of each period, the field of study moves from paradigmatic objects to the whole habitat in which human life has developed. With this approach we find a wide field of study that will allow us to achieve a better comprehension of the evolution and present situation of our urban and rural environment. Moreover, among the general recommendations of the Seminar on 20th-century Heritage, held in Helsinki in 1995, it is stated that "... the 20th-century heritage should not be defined only with references to its architectural forms, but taking into account the broad ecological, social, anthropological, economic and cultural framework which forms the whole... Attention is required to all types and even modest examples of such heritage, and in particular to urban and rural ensembles, housing schemes and industrial heritage." (1) Taking into account these considera-

tions, the purpose of this paper is to describe the influence of the Modern Movement on Argentine housing and the interaction between architectural types and townscape. Modern Movement ideals and theories had a clear influence in the construction of the urban habitat, not only through the work of avant-garde architects but through the introduction of new types of one-family houses, often built with the participation of unknown constructors or with no professional participation at all. In order to understand the impact of the introduction of modern ideals it is necessary to make a brief reference to what could be called the traditional city and to the types of residential buildings that formed the urban tissue. The foundation of towns and villages undertaken by the Spaniards between the 16th and 18th centuries was based on the use of an urban layout whose determining features were the grid of square blocks and the central open space – the "plaza" – which was the core of the town and the place for the main buildings. Blocks were usually divided into four plots – the *cuartos* – that allowed the construction of fairly big houses and space enough for gardens and stables. In Argentina, the grid layout survived with slight changes during the republican period in the 19th century, when new towns were settled in order to occupy and colonize the vast territory of the country. Blocks were, however, divided into narrower plots according to two typical schemes, the so-called X and H models. The former was the result of the fragmentation of the primitive Spanish model, the latter responded to the will of major rationalisation. It is important to state that in Argentina, as in most Latin American towns, urban layout and the ways of division of the blocks appear as previous, basic elements for the formation and consolidation of urban tissue, so that the city is the result of individual operations of construction of buildings according to a predetermined conditioning scheme. One-family houses were and are predominant in Argentine towns. The types brought by the Spaniards, coming mainly from Andalusia, had a patio as core of the architectural composition and the heart of family life. The facade of colonial houses was intended as a plane on the front line of the plot that emphasized the boundaries between pub-

lic and private spaces. Through the 19th century and with the more exiguous dimensions of the plots, a characteristic type of urban popular house appeared, the so-called *casa chorizo* (sausage house), where the rooms are lined along one separating wall, thus forming a lateral patio. Some historians have explained the origin of this type as the partition of the colonial house in order for it to adapt to the new ways of the division land. The facade occupies the whole front of the plot continuing the colonial tradition of limiting the space of the street; the union of buildings forms a continuous line of facade, with individual buildings being distinguished by the diversity of treatments. The continuity and wide predominance of this type from the mid-19th century up to the 1930s allows us to observe the evolution of architectural languages, from the modest Italian-style facades up to Art Deco.

From MoMo pioneers to unknown constructors

The development of Modern Movement in Argentina started in the 1920s with the introduction of books and magazines from Europe. The first architectural themes developed in the country centred upon upper middle-class flats, the so-called *casa de renta* (rent building), some office buildings and particular programmes, like the group of urban and rural buildings projected and built by Antonio Vilar all over the country for the Argentine Automobile Club. Though included among pioneer ideals and projects, popular housing and urbanism were practically absent, partly due to the lack of State participation in these fields. Nevertheless these topics were essential for Argentine architects, and the interaction between urbanism and architecture became a fundamental point of departure. Their ideals and theoretical views started, as with many European predecessors, with the rejection of tradition. The ways of dividing the urban land and the prevailing types of houses became a target for these architects, who saw in tradition an obstacle to the development of fresh ideas. As early as 1927, in referring to the urbanisation of Buenos Aires one writer complained about the presence of separating walls, saying that "...they have become a bad habit and the principal obstacle to the construction of isolated buildings",

which he recognized as one of the main points of architectural renewal (2). In the magazine *Nuestra Arquitectura* ("Our Architecture"), Leon Dourge urged modification of the shape and dimensions of blocks and plots. He proposed substituting the square blocks and narrow plots with a rectangular one having wider and more uniform plots, in order to proceed to a major rationalisation of the construction. He proposed the standardisation of buildings plans, considering the diversity of shapes and dimensions of urban plots to be one of the main factors against such an aim (3). Alberto Prebisch, one of the pioneers of Modern Movement in Argentina, stated in 1931 that "...the individual organization of our cities obliges us to consider the house as the goal of Architecture... it has to be solved in a mistaken urban system which avoids any legitimate freedom in the architectural conception... in the present city, partition walls and not architects decide the plan of the building." He concluded his argument by saying that the program of any architectural renovation "separates us from the particular problem of the house and takes us to the collective conception of the desirable city" (4). In 1931 *Nuestra Arquitectura* began publishing projects by modern Argentine architects. In the presentation of the issue, the Editor declared that "...our problems of architecture are mainly problems of urbanism. In view of the lack of collective consciousness that would allow these problems to be solved, the best we can do is to build houses as well as we can in order to accommodate our modern life in blocks and plots conceived for colonial life" (5). The first project was a compact one-family house projected by the Russian architect Wladimiro Acosta, who had spent four years in Germany before settling in Argentina in 1928. In the introduction of his project, Acosta rejected the *casa chorizo*, arguing that the dimensions and the excessive height of the rooms prevented proper aeration, thereby creating an unhealthy environment.

Side by side with the publication of specialized magazines, more popular periodicals would also help to diffuse the theories and ideas of the Modern Movement. One such was *Casas y Jardines* (Houses and Gardens), which from the mid-1930s published projects for economical houses, including plans, descriptions and cost es-

timates. These projects can be considered a modest version of the influence of the Modern Movement, but they had a marked influence in the creation of new types of urban popular houses and in the resulting townscape. In this case, no consideration about urbanism was made, but it is clear that, though it may not be explicit, there is an idea of townscape. Every house should be leant on one of the lateral limits of the plot, retired from the other and from the front line. An illustration showing the possibilities of orientation gives us an idea of what was intended (6). The compact block from colonial times was broken and a more open urban tissue appeared. This kind of magazine had an influence upon the formation of constructors and upon the public itself; through the labour of the former these modest compact types would achieve an extraordinary expansion and acceptance.

The new types of houses and the urban results

Despite the preaching and the plans and projects made by the most important Argentine modern architects, individual construction on the basis of a previous urban scheme continued to be predominant. We would wait to the beginning of the 1950s to have housing ensembles conceived in the ideals of Modern Movement. Generally speaking, we may state that the influence of the Modern Movement on housing consisted in the abandonment of the patio types in favour of a compact layout. In this scheme it is possible to distinguish between the two-storey middle-class houses and the more modest one-storey ones. In the case of the first type, their authors were architects and engineers who adhered to MoMo principles. The composition of these houses was often expressed by the relation of plain naked masses. Sometimes the facade is a plain surface coinciding with the front of the plot. These houses were built particularly in urban consolidated areas, as a result of individual acts of urban renewal, so that they appear isolated or in groups, but always mixed among other previous types. In the case of houses formed by different masses, they introduce some changes into the characteristics of the urban tissue and of the space of the street, because of the presence of transitional spaces between public and

private ones. The more modest type is mainly represented by the so-called *casa cajón* (box-house), which reached its peak of predominance as a popular urban housing type between the 1940s and the 1950s, and played a significant role in urban morphology and appearance. They were predominant in areas which were in process of consolidation or in the new suburbs in the outskirts of the main Argentine cities. Despite the wide acceptance of the type over a period of twenty years, not much attention has been bestowed upon them in studies on architecture and urbanism in Argentina, and with the exception of some few contributions not too much has been said of them. (7) "Box-houses" are based on a compact layout formed by two differentiated masses; one corresponding to the "social" part of the house (living and dining room, kitchen), the other to the "private" one (bedrooms, bathroom). The house does not occupy the total width of the plot, so that there is a free lateral space whose dimensions depend on those of the plot and which is sometimes used for the building of a garage. The dimensions of the rooms are the minimum required for their function and notably small when compared with previous types; the application of the *Existenzminimum* principle is evident, as is the resemblance with Alexander Klein's schemes of the 1920s. The construction system is the traditional one, based on brick walls; concrete is used sometimes and often the roof is made of corrugated iron, more appropriate than concrete slabs for the climatic conditions of the country. The image is based on the expression of the two masses composing the scheme of the house. One of these is usually recessed so that a protected space is located in front of the entrance door. The language corresponded to the typical Modern Movement, the walls are covered with white plaster and no ornamentation is added. The urban result of the use of the "box house" type is quite different if compared with the traditional Argentine townscape. The line of construction is interrupted by the recesses, the public space is directly in communication with the private one at the back of the plot, the urban tissue has become more open and free space is predominant. In the 1940s, the plain white images of modern houses began to lose prestige. It is notable from

the issues of *Nuestra Arquitectura* that even some architects who had adhered to Modern Movement in previous decade had changed to a more picturesque language. The result in middle-class urban houses was the adoption, though maintaining the compact layouts, of images that included exposed brick or even some relics of "styles" architecture. "Box houses", on the other hand, continued to be accepted and were included in governmental plans for popular housing. Despite the incorporation of new architectural components, sometimes related to stylistic additions, they are still used as economical types.

Conclusions

The pioneers of Argentine Modern Movement dreamt of a wholly different city in which the tradition was abandoned in favour of new schemes of urban shape and land division. This came about only to a relative extent; we have no significant examples of new towns as they have been built in many countries. Some ensembles in the outskirts of the big cities are perhaps the most relevant testimonies of materialized modern urbanism. Reality was perhaps stronger than dreams; the weight of tradition, the lack of participation and

compromise on the part of the State, and the popular ideal of having one's own individual house and plot overpowered the efforts and the enthusiasm of avant-garde architects. But the introduction of new types of houses, particularly the most popular ones, implied, if not consciously, a new type of urbanism, formed on the basis of previous and very old structures. This situation can be viewed as the result of an accommodation between the modern and the traditional, with the persistence of the latter not preventing the development of the former. The continuity of some urban features was an alternative to total rupture. These urban fragments remain today as testimonies of that adaptation and of the heterogeneity of Modern Movement. What are their values? Should they be the object of conservation policies? It is certain that these buildings and urban fragments are not paradigmatic in the whole history of Modern Movement; they have not even been properly considered in the history of Argentine Modern Movement. It is clear that we cannot preserve the entire environment, particularly when the values it represents have not been taken into account by the inhabitants of the city. Nevertheless it is necessary, I think, to proceed to their prop-

er documentation and study. Perhaps they will not exist in the future, or will be thoroughly altered. But the proposed documentation will allow us not to forget a page – perhaps not the most important, but a page at least – of the history and evolution of our everyday environment.

NOTES

- 1 General Recommendations, ICOMOS Seminar on 20th-century Heritage, Helsinki, 1995.
- 2 Schiaffino Eduardo: "Urbanización de Buenos Aires". Buenos Aires, Manuel Gleizer, 1927.
- 3 Dourge Leon: "Las casas standard y el abaratamiento de la construcción". In "Nuestra Arquitectura", Buenos Aires, October 1930.
- 4 Prebisch Alberto: "Arquitectura-Urbanismo". In "Nuestra Arquitectura", Buenos Aires, September 1931.
- 5 "Nuestra Arquitectura", Buenos Aires, June 1931.
- 6 "Casas y Jardines", Buenos Aires, May 1937.
- 7 The few studies on "Box-houses" include those made by Alberto Bellucci and Dardo Arbide.

Aluminum City Terrace: Transforming Modernist Housing for America

Will America, being at the threshold of a vast housing movement, lead the future way by integrating all the many experiences made in housing here and abroad? The solution to this problem seems to be self-evident...

Walter Gropius, 1938

Three years after making this idealistic forecast, Walter Gropius, in collaboration with Marcel Breuer, was commissioned to design his first housing project in the United States. "Aluminum City Terrace", named for the aluminum industry that dominated the town of New Kensington, Pennsylvania, was designed for 250 workers as part of a government program to erect low-cost housing in industrial areas. It is a study in the transformation of a European housing prototype to the United States. Rather than being merely a *Siedlung* transported to America, however, its siting, materials, construction system and unit design reflect the change that "international style" modernism underwent as it was adapted to different countries, climates and societies.

Aluminum City Terrace was sponsored by the Division of Defense Housing. The goal of the defense housing program was to build worker's housing in proximity to industrial plants which were gearing up

for the production of war materials triggered by the onset of World War II. This program operated within the larger organization of the Federal Works Administration, a New Deal program with the objective of providing low-cost housing for Americans throughout the depression years. The sudden conversion to war-time production produced a tremendous housing shortage in industrial areas. The defense housing program sought to plan, finance and construct good-quality, affordable housing wherever it was most needed in the United States. Nearly 300 American towns were targeted for large defense housing projects in 1942 alone. Despite great pressure to start building, the Division of Defense Housing realized that innovative solutions for design and construction were needed in order to achieve both speed of construction, and acceptable quality. Mass production, standardization, defining minimum standards and optimal unit plans were carefully researched by the agency in a way not dissimilar to the experimental housing efforts undertaken in Europe in the 1920s and 1930s. The directors of this program recognized the need for progressive thinking, and enlisted the aid of some of the best architects available in the United States at the time. Richard Neutra, Oscar Stonorov, Louis Kahn, George Howe, William Wurster, Eliel Saarinen, Skidmore, Owings and Merrill, and Gropius and Breuer, were the best known of the architects to design defense housing projects. Because most of these architects were practitioners of modernism, and because the defense housing program was planning for the entire country, the result was that almost overnight whole neighborhoods of modernist housing sprung up across the United States. For example, the Howe-Stonorov-Kahn project known as Carver Court, in an industrial region outside Philadelphia, consisted of flat-roofed, ribbon-windowed apartment units set on concrete *pilotis*. Richard Neutra's project, called Channel Heights, in San Pedro, California, consists of ground-hugging one-story units of wood construction with broadly overhanging flat roofs which accentuate their horizontal line. Each unit was expected to cost less than \$3,500, but had to meet minimum space requirements. In many cases, as we see with

Aluminum City Terrace, climates and topography frequently exerted more influence over the designs than did official standards, producing solutions tailored to the regions in which they were built.

For Walter Gropius and Marcel Breuer, the commission in 1941 to design defense housing in New Kensington, Pennsylvania was the first big project for their new architectural office. With it, they could continue exploring the regional variations possible in modern architecture. Gropius' shift away from "white box" modernism began during his years in England, where he resided for three years after leaving Germany in 1934. Working briefly with the British Timber Development Council, he was involved in an experimental all-wood house intended to promote the use of wood in residential construction. He stated that the modern form of a building was not dependent on new materials, and that "the really creative architect does not tie himself up with only some special materials" such as concrete and steel. Gropius came to the United States in 1937 to chair the Department of Architecture at Harvard University, and sponsored Marcel Breuer, who arrived that same year. They were not only teaching together, as they had at the Dessau Bauhaus, but also established an office together. Their first project was Gropius' own house, in Lincoln Massachusetts, which became a calling card to the community and architectural press, announcing their arrival. Gropius studied the building characteristics of New England, and made a fairly self-conscious effort to adapt his work to his new context. A tradition of wood frame construction exists throughout North America, but in New England it is especially strong. Therefore, he chose the technique of lightweight wood frame construction, which was also inexpensive and readily available. By using painted wood siding, stone foundations and retaining walls, a brick chimney, trellises planted with vines, and that most American of features, the screened porch, Gropius blended this house into its setting. The house, and several others which followed it in the Boston area, were enthusiastically received by the architectural press, and tolerated by the genteel New Englanders who tried to understand them. When asked about the term "International Style", Gropius explained

that he was opposed to the term, for he felt that respect for regional conditions was more important than fidelity to any international precepts. He continued to demonstrate this in his design for Aluminum City Terrace.

The site selected for the project at New Kensington was on a series of wooded ridges on 45 acres of land overlooking the industrial area of town. Level land was scarce within the site's boundaries, and produced an irregularly shaped buildable area. This must have produced an incredible challenge to the architects, completely unsuitable for the German planning model they knew best. Ten years of planning large-scale housing projects had produced for Gropius and his fellow *Bauhausler* a well-defined planning strategy. Applying a rational approach to the study of housing had resulted in years of technical, economic and social research. To many from this group, the *Zeilenbau* seemed the ideal site plan. Large housing blocks were arranged at right angles to the street on an east-west axis, providing uniform solar orientation for all units. Gropius calculated the exact spacing between the rows, based on the building's height. It seemed absolute and inflexible, and is evident in the site plans of Gropius' *Siemmanstadt*, near Berlin, and in the *Dammerstock siedlung* in Karlsruhe.

How could Gropius and Breuer apply any of their site-planning experience in the hills of Pennsylvania? The cost restrictions of the project forced them to locate their housing slabs only on the most level ground to minimize foundation and excavation costs, thus making the *zeilenbau* plan impossible. What they elected to do was to situate the blocks of housing, consisting of rowhouses, so that each block had as close to a southern orientation as possible for its garden side, and a good view. No other condition of their planning model could be met, and, in fact, perfecting the siting of each block was of such paramount importance that their site plan changed four times during the production of construction drawings as new, corrected site survey information was delivered to their office. The result is an informal arrangement of buildings across a landscape, that seems at first to be random, but is, in fact, delicately tailored to the topography. It is anti-monumental, irregular and asymmet-

rical, but reveals itself as a legible organizational strategy when one moves through it. The street and parking areas form the connecting thread and common open space which tie the housing blocks together. In addition to these blocks, there are four pairs of one-story "honeymoon cottages" placed throughout the site in steep areas. Entered originally by gangplanks, they do not touch the ground at all, but are perched on tall piers at the edge of the slope, as if to further emphasize the steep topography. The gangplanks have since been replaced by wooden stairs, and open space between the piers filled in to create basements, by current residents who failed to appreciate the lyrical quality of these particular units.

The architects' attempts to produce a regional variation on modernism did not meet with an immediate acceptance in New Kensington. The two-story housing blocks, which consisted of groupings of either six or eight rowhouses formed long, thin slabs with flat roofs. The construction system was lightweight wood frame, but on three sides of the blocks they applied yellow brick as a veneer. On the south side, unpainted vertical cedar siding was used. Both stone and brick construction is very common in Western Pennsylvania, although it is not clear why yellow brick was selected. Using the brick as a veneer was indeed a typical American system to give the appearance of masonry to a wood frame structure. The colors and textures of the brick and cedar siding would have been harmonious with the wooded landscape, and may have derived from agricultural buildings in the region. This equivalence to agricultural buildings was certainly noticed by the residents of New Kensington, who derided the buildings as looking like "chicken coops" even before the construction was complete.

On the south elevation, where both stories of the rowhouse had continuous ribbon windows, wood was the most economical way to frame the long spans over the windows, whereas the windows on the brick walls are small punched openings. The ribbon windows opened up the interior to fine views and sunlight. Over the windows at both stories, continuous wood slat sunshades were constructed. This lightweight sunshade became a hallmark of later works by Breuer. Designed for the climate of Pennsylvania, where cold, snowy win-

ters and hot, humid summers prevail, the slats of the sunshades were calculated to permit sun to enter the units only in the winter months. The merits of the slatted sunshades were lost on the original occupants, who condemned them for their failure to shed rainwater.

Typologically, the rowhouses are very similar to the *Dammerstadt Siedlung* constructed in Karlsruhe, in 1929. Both plans differentiate the public side from the private or garden side, which is facing south with living and dining rooms oriented to the garden. At Aluminum City Terrace, the living room and dining room are one space. The kitchen is separated from it by a partition that does not extend to the ceiling, allowing the work taking place in the kitchen to be part of the larger family's activities. The staircase is separated from the living room only by an open framed divider. This interior open plan is very different from its compartmentalized German antecedents, and reflects a further transformation in Gropius' concept of the minimal home and the operations of the American family.

Initial reaction to the project was very negative. The local workers did not like the appearance of the buildings, and the neighbors did not like idea of government subsidized housing. Both socially and architecturally, Aluminum City Terrace was very controversial. Gradually however, the residents of Aluminum City Terrace began to appreciate advantages that the siting and the design offered, and by 1948, they purchased it from the government, making it one of the first resident-owned cooperatives in the US. Inexplicably, changes made in 1965 by its resident-owners have removed most of the original wooden features; the cedar siding was covered up with enameled aluminum panels, the wood sunshades were replaced with aluminum canopies, and the wood privacy screens separating backyards were rebuilt in brick. Today, many residents are placing additions onto the living room on the garden side, in an effort to expand their living space. Despite all the changes to the finish materials, however, the original massing and siting remain, and gives evidence of the original design. Visiting Aluminum City Terrace today, one is struck by how appropriate, even commonplace, the buildings and their siting seem. Perhaps

this is the proof of how completely suited to the regional setting this design always was.

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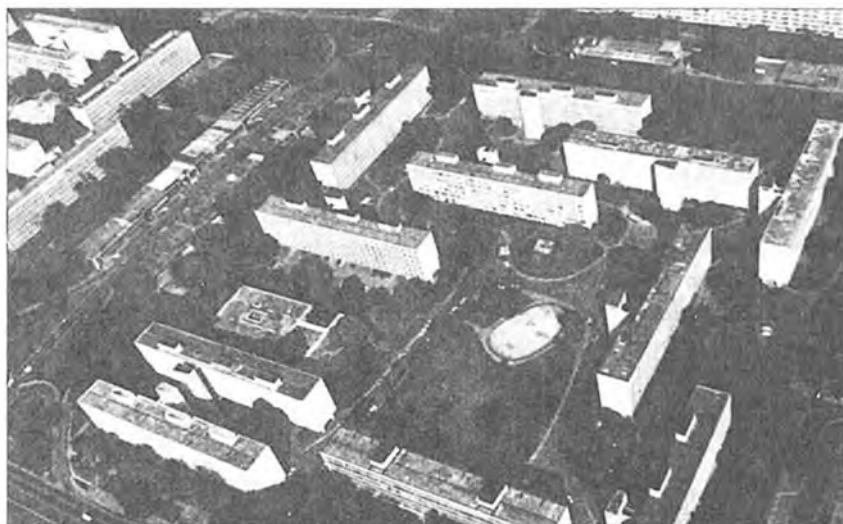
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The Conception and the Transformation of the Superblock of Brasília

This paper presents a post-occupancy evaluation research applied to the housing pattern of the Superblock. This design pattern accounts approximately for 80 % of the residential areas in the Pilot Plan of Brasília – city capital of Brazil. The inhabitants' appropriation and the transformations that occurred are studied in order to confront the plan and reality of the Superblock. The transformations in the main building design pattern of the apartment block and in the residential facilities areas are considered, such as the local commerce and green areas.



Superblock 107 South

I. Introduction

The Pilot Plan of Brasília, inaugurated in 1960, was originally planned for an administrative city of 500,000 inhabitants. After 35 years of existence, the transformations which occurred, due to rapid urbanization, are similar to those in all Brazilian metropolises. Nevertheless, in terms of its planned condition, these transformations can be identified by the comparison between the actual urban configuration and the preliminary urban guidelines, conceived in 1958 by the urban designer Lúcio Costa, in the winning project for Brasília. The city was planned in accordance with the modernistic concepts of the Athens Charter, emphasizing the separation of different urban sectors. The monumental axis is defined by the administrative areas of the

Federal Government (Fig. 1) and of the Federal District. The residential axis is defined by the neighborhood unit, shaped by four Superblocks, planned in order to integrate green areas and public services with housing. Lúcio Costa's proposal also considered the alternation of activities along the residential axis, such as public health services, movies, churches, aimed at the self-sufficiency of the residential facilities.

2. Methodological Approach

In order to evaluate the inhabitants' appropriation of the first residential areas built, the Superblocks planned in the southern part the city were studied, especially those related to the apartment blocks designed by architect Oscar Niemeyer and built in the late 1950s (Fig.2) in the superblocks 108,



Monumental Axis



Pilotis Area: Pedestrian Access to apartment block

107, 106, 208, 206 and 304. This involved ten blocks with 360 apartment units and 1,800 residents. The procedures used were focussed on the study of the inhabitants' interaction with their physical environment (Bechtel, 1986). The investigation of the causes of transformations were recorded by the identification of physical evidences, observations, and interviews with dwellers. It was observed that 82 % of the dwellings had been modified. Interviews to explain the modifications were made with 175 households. Among the questions asked were ones regarding the use of public and private spaces, the efficiency of space organization and how they optimized the use. Among the conspicuous activities questioned were the daily tasks, such as going to the store and the access of children to the elementary school.

3. Results

3.1 Inhabitants' Identity

One of the observed outcomes of this research is the peculiar middle-class inhabitant identity. This urban identity seems to come from separation into different urban sectors, and the urban skill needed to go about daily activities. This is very peculiar to Brasília, unlike other Brazilian cities, where human activities are all within city districts. This statement is valid for the middle-class

inhabitant that mostly lives in the Pilot Plan and has a monthly income average per family between 1,200 USD and 2,400 USD. In terms of these inhabitants' identity, it is interesting to observe that the monumental valorization of housing in apartment blocks does not have this connotation for the middle-class citizens of Brasília. This seems to be due to the uniformity of the buildings and the similar pattern design of the Superblocks. Due to design guidelines and architectural restrictions, the same residential block pattern from the late 1950s has been continued until recently. This situation, understandable for the mass production of housing in the earlier years, does not justify its use nowadays. Although construction of different block patterns was introduced in the 1980s, these variations are restricted to dimensions and building envelope in the northern residential area of the city. As a consequence of the residential uniformization, the monumental characterization of the political-administrative areas in the Monumental Axis has been strongly emphasized. This has contributed to a collective urban identity at a global level.

3.2 Apartment Block Transformations

The urban structure in Brasília was initially structured around public areas. This

created a particular relationship between public and private, generally limiting private spaces to indoor areas. This space characterization is also noticed in the inhabitants' appropriation of public spaces within the Superblock, such as the enclosure with shrub fences of the ground floor of the "pilotis" areas. This limited the access to blocks by restricting movement (Fig. 3). Inhabitants also enclose public areas to create recreational spaces (Fig. 4) and parking lots between residential buildings. The substitution of finishing materials and the construction of additional rooms for social and administrative purposes in the "pilotis" areas also assisted the creation of distinctions among these apartment blocks. Some improvements are also seen in the residential units, where most service areas have been remodeled. Nowadays, the middle-class inhabitants have usually substituted a permanent maid with daily services. This has caused changes such as the substitution of the maid's room for a bigger laundry room. Also, the original laundry room has left place for a new bathroom, giving the option of the creation of a wardrobe. From the results obtained in the interviews and reinforced by observations, it was noticed that some physical characteristics of the Superblock influenced the spontaneous appropriation of the inhabitants, such as children's



Pilotis Area: Enclosed public area

recreational use of shaded places near apartment blocks and teenagers' meeting places in central green areas. Sometimes these places were adapted by dwellers, being better equipped than the planned spaces originally proposed for those activities.

3.3 Local Commerce Transformations

The sectorized local commerce of each "Superquadra" was intended for daily supplies. Nevertheless, on an urban-scale level, the oversizing of the local shops had allowed further commercial expansion. This contributed to commercial specialization, and favoured the creation of inter-urban poles of attraction. As a result, choice of where to buy the same type of goods is available in certain commercial areas, in addition to the daily shops originally planned by Lúcio Costa. Among five local businesses studied, it was noticed that 80% of the original shops were modified in some way. Most of the transformations among the local shops are the expansion of the commercial areas into the public back courtyard of the neighborhood and expanding "marketing" appeal of the facades located towards automobile traffic. These entrances were originally intended to be used for stock delivery only.

4. Conclusions

The urban complexity for the Superblocks of Brasília was at first thought

to be similar to the residential facilities that exist in most Brazilian city districts (Costa, 1994). However, the sectorization of an administrative city into different urban areas restricted the physical juxtaposition and integration among urban activities, limiting the enrichment of urban ways of life. Although the urban interdependency among the residential areas of the Pilot Plan was clear defined in the urban guidelines, nowadays the relation between public and private spaces is mostly uniform in the superblocks. Some of these ideas were well known to Lúcio Costa, but could not be applied fully due to the political situation at that time which demanded that the capital be constructed within the presidential term of Juscelino Kubitschek. This can be understood from the following statement by Lúcio Costa (Interview, December, 1990):

"In a normal city, the main objective of urbanization is to create possibilities for city development, as if it grew as a plant, as a flower, and not as an imposed rational thing, as was the situation in which Brasília had to be constructed, being the result of a rational act, conceived with the specific objective of transferring the capital.."

The value of the hypothesis of this study is to provide evidence of the architectural production of the Superblocks of Brasília, demonstrating by the physical evidence gathered the intensity of the inhabitants' transformations. The results speak in support of optimizing the application of direc-

tives to satisfy inhabitants' needs, making possible future housing design guidelines which are being planned for urban expansion, not only in the Pilot Plan of Brasília, but also in newer planned cities in Brazil.

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The Reconstruction of Le Havre An Exceptional Architectural and Urban Heritage

In 1956 Pierre Dalloz declared that the new city of Le Havre was "the greatest success of the French reconstruction". "One believed that so much simple grandeur was long gone in this country. And yet Perret, having to reconstruct a modern city, rediscovers in the most natural way in the world the spirit of the *king's buildings*, and works out the layout of the sort of Versailles of housing, without the least concern for compromise or gratification." (1) A few years later, at the time of the first critical reassessments of modern architecture, these same characteristics on which Dalloz placed such a high value, became, in the view of Leonardo Benevolo, the stigmata of an outmoded way of thinking, too ready to turn problems considered specific to city planning into architecture. "Whatever scale he was working on, he always conceived the program as if it were a project of architecture, in which the whole is governed by the same criteria of symmetry, order, and proportion as hold for the individual parts." (2) According to Benevolo, what Perret lacked in Le Havre was a true methodology of city planning that would have permitted him to spread the different decisions required by the multiple scales of urban development over space and time. A fairly similar criticism was expressed by Manfredo Tafuri and Francesco Dal Co in their history of *Contemporary Architecture*, but they combined their analysis with

a symbolic dimension that attempted to interpret Perret's attitude: "The balance between technological academism and formal academism attained by Perret in the thirties preserves the neo-Cartesian method of the French master from any outburst of subjectivity. It is precisely this assurance, based on an Olympian, timeless serenity, on a *spirit of geometry*... that allows Perret's language to tackle, as a unitary ideal monument to his own dream of a new classical age, the plan for the reconstruction of Le Havre..." At the head of a large, perfectly organized studio, Perret extended to the scale of city his "*language without words, without temporality, inalterable*..." (3) These different critiques clearly underline the essential theoretical aspects of the reconstruction of Le Havre, from the classical ideal of unity of language to the utopia of an unbroken transition between architecture and urban space. However one would be tempted, after four decades of experiences of every kind, to be thankful that Perret did not have at his disposal that "methodology of city planning" of which Benevolo speaks, and that he had been able to give a sense, even an anachronistic one, to the "language without words" alluded to by Tafuri and Dal Co...

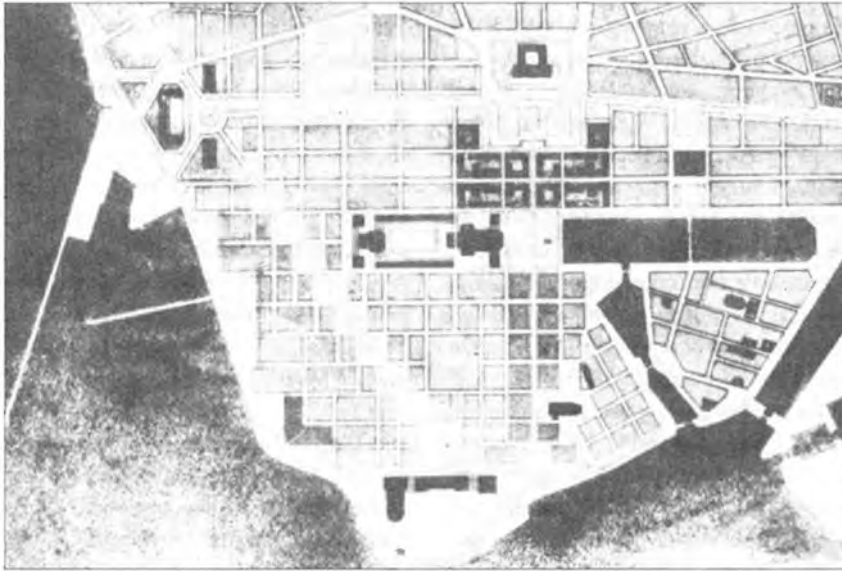
A cohesive group

It was Jacques Guilbert, former student at the Atelier du Palais de Bois (1923 – 1928), who, as far back as the spring of 1944, had had the idea of forming a cohesive group under the leadership of Perret. After consulting a number of colleagues, all former pupils of Perret, he turned to his master to ask him to accept the direction of a team of reconstruction. (4) His argument was simple: it was an obvious alternative to the untidy policy of the Government which handed out jobs to "people at random...". Given the extent of the destruction, it was necessary to form groups of architects "moved by a common spirit". Perret's pupils "who have received a special teaching" had to organise themselves to undertake "a work of very great interest" under the direction of their master. (5) Things remained at a standstill for several months, undoubtedly as a result of the great events underway at the time (the Normandy Landing, the Liberation of Paris), only to get moving again at the end of the summer of 1944. A manifesto was

drawn up (September 1944) and an association formed (December 1944) under the title of Union pour l'Architecture. This association, whose purpose was "to apply, defend, and propagate the principles of the Great Architectural Tradition as they have been formulated by Auguste Perret", was in fact the first version of the *Le Havre Atelier*. An active core (J. Guilbert, P.E. Lambert, A. Le Donni, T. Sardnal, P. Vago, G. Lagneau, and A. Hermant) got in touch with the Ministry. Two meetings were held (one on 20th Nov. 1944, the other on 26th Dec. 1944) leading, at the beginning of 1945, to the presentation of a proposal to the Minister for the formation of an *Atelier de Reconstruction Auguste Perret*. This group was to include sixty architects. A few weeks passed and, on 1st February 1945, J. Guilbert was able to announce to his friends that the Minister, Raoul Dautry, had decided to place the reconstruction of Le Havre in Perret's hands.

A receptacle space

The choice of Le Havre for an exemplary experience was far from haphazard. Owing to the strategic location of its harbor, the city had been bombed regularly during the Second World War, and had just been subjected, on 5th September 1944, to the most murderous raid that France had ever seen: 12,500 buildings were destroyed, leaving 80,000 people homeless. On the 150 hectares of the devastated zone there was not a single building that could be salvaged (with the exception of two churches, Notre Dame and St. François). The whole of the center and the port area had been reduced to rubble in the space of a few hours, to the point where it was described as a true *tabula rasa*. It was the extreme gravity of the situation that led Dautry to give responsibility for reconstruction of the city to Perret. Le Havre, the "Ocean Gate" through which foreigners discovered France, was the most badly devastated city in the country, and the one where, owing to the scale of destruction, anything was possible. The demonstrative intent of the Perret atelier, which insisted on the need for a coherent approach to reconstruction, seemed ideally suited to the tragic *tabula rasa* of Le Havre. It is interesting to note that the first evidence of this demonstrative intent (Guilbert's letter to



Reconstruction of Havre, Perret's plan 1946

Perret dated 4th May 1944) was written four months prior to the bombardment that reduced the towns to ashes: the key words in it were "coherence" and "common spirit". It was inevitable, once such an atelier had been set up, that one of France's major cities would be marked with the stamp of "structural classicism". The fact that the choice fell on Le Havre, a city that even before its destruction posed serious problems of centrality, made the task very difficult for the Perret studio, making the gaps in his overall approach stand out more than they would

have done elsewhere. The manifesto drawn up in the spring of 1944 by the group that, only a few months later, was to form the core of the Atelier du Havre, confined itself to commenting on the rationalistic aphorisms of Perret which codified, for architectural purposes, the relationships between construction, space, and language. The coherence claimed by the group for the future reconstruction team was based around a set of architectural principles. This corresponded in fact to the establishment of a school, which had been forming gradually over the course of the

two previous decades, and which, all of a sudden, faced with the scale of the tasks that awaited it, became aware of itself. This highly unusual situation conferred on the site of the experiment the strange status of a receptacle; at the time urban space was regarded as a location available for compatible buildings, compatible because they were the product of a tendency that had already amply tested its typologies and language.

Alternative plans

It was during the summer of 1945 that the Atelier set to work, embarking on a process of joint research to draw up the general plan of the city. A sort of internal competition was organized on the basis of a certain number of common ideas, concerning for example respect for the axes of the old city or the relative size of blocks. Perhaps it ought to be recalled here that Le Havre (a city created by François 1er in 1517) had already benefited from a rational plan in the 16th century (for the St. Francois extension designed in 1514 by the Sienese architect Bellamarto), that the city had first begun to expand in the 18th century, owing to the opening up of its port to commerce, and then in a more chaotic manner under the pressure of the industrial revolution. It was at this time that the major axes were built which were to serve as a starting point for the Perret studio. The atti-



Reconstruction of Havre, Rue de Paris



A. Perret in the studio at HavreA. Perret in the studio at Havre

tude of the Atelier toward old layouts was fairly conservative. Of the draft plans known to us, only one makes radical changes to the existing major axes: this is a proposal by José Imbert who seems to have directly addressed the question to centrality, laying out two grids around the Place Gambetta. Given a circular shape, this Place plays the role of a swivel joint between the two grids and, together with the Place de l'Hôtel de Ville, transformed into an esplanade, forms the new center of Le Havre. This solution has the merit of defining a clear relationship to the Boulevard de Strasbourg and the Rue Thiers, the traditional center of working-class commerce. The quarters of Perrey, St. Vincent, and Foch are treated as a homogeneous whole provided with two fine sea fronts to the south and the west. (6) A second proposal by Imbert retained the Foch-Strasbourg axis, got rid of the Boulevard François 1er, and displaced the Rue de Paris, which became a monumental route leading from the Place de l'Hôtel de Ville to a semicircular plaza created to the south in

the direction of the sea. A secondary perpendicular axis serves as an esplanade linking the Bassin du Commerce. The choice of a single grid meant sacrificing the continuity of construction along the sea front. This proposal is fairly close to those put forward by le Donne, who also extends the Place Gambetta to form an esplanade toward the west, and by Lambert who gives this axis a monumental character. But both of them keep the Rue de Paris in its original location. (7) Unlike the other architects in the group, Guilbert retains the old layouts and accepts a variety of grids which evoke those of the vanished quarters. But he gives order to this multiplicity by overlaying it with a system of eight cross-shaped towers that run across the city from one side to another of the Bassin du Commerce. This dual system has numerous advantages. It is simple and complex, it is flexible, but it remains perfectly legible. The multiplicity of grids makes it possible to follow the coastline and to treat the city as a port (by sticking closely to its topography). The scheme proposed by André

Hermant makes a radical break with the old city. The area to be reconstructed is filled with a typology of cusped buildings close to the researches carried out by Le Corbusier. This very airy system changes orientation to reconstitute the main boulevards and the sea front. The proposals of the Le Havre team are potentially very rich. At the end of this first phase, a joint study was carried out by Le Donne, Imbert, Lagneau, and Hermant. This study, in which we find the widening of Avenue Foch a rough draft of the Porte Océane, and emphasis placed on the Rue de Paris, is fairly similar to the definitive project, presented by Perret to the Municipal Council on 26 September 1945: – a grid parallel to the Bassin du Commerce extends throughout the city, filling the urban space with square blocks of 100 meters on a side. The Place Gambetta, Place de l'Hôtel de Ville, Avenue Foch, and Porte Océane have almost found their definitive form. The Boulevard François 1er, the Rue de Paris, and the southern sea front still have to evolve further. It was at this same session

that Perret tried to impose a new principle: building the city on a slab 3.50 m above the natural ground level. This solution, suggested by the proximity of the underground water table, offered a large number of advantages (easy access to urban mains and drains, traffic on two levels, garages, cellars, warehouses, etc.). This proposal was rejected by the Municipal Council on the grounds of its excessively high cost and it was not supported by the Ministry of Reconstruction (which gave rise to a certain amount of disappointment in the Perret studio). This idea of the slab should be seen in relation to another initiative, that of laying out the whole town on a grid with a standard unit of 6.24 m. This idea was justified by Perret by technical reasons and also to unify a rhythm, a cadence at the scale of the city... Generally speaking, the definitive plan of Le Havre was conservative... It gave a monumental character to the triangle of the Avenue Foch, Boulevard François 1^{er}, and Rue de Paris. It respected the memory of the old town. But, in the tense situation of the reconstruction there is nothing to show that the population would have prepared to accept entirely new layouts...(8)

An exceptional architectural quality

As one passes through the streets of Le Havre, one is struck by a series of contradictory impressions: the three operations of the monumental triangle (the Place de

l'Hôtel de Ville, the Porte Océane, the Front de Mer Sud), the Rue de Paris with its galleries (which openly imitate the Parisian model of the Rue de Rivoli), the edges of the Bassin du Commerce, the Avenue Foch, and so on – all these are indisputable urban successes. Many monuments (Perret's St. Joseph and Hôtel de Ville, Lambert's Ecole des Filles, Poirrier's Hôtel Normandie, The Musée des Beaux-Arts, the Ecole de Commerce, the Caisse d'Epargne...) and a large number of residential buildings are of an exceptional architectural quality that at times verges on the sublime... Yet this architecture is unable to express all the refined urbanity with which it is imbued. One gets the feeling too much emphasis has been laid on the empty spaces of the avenues and squares, distending fabrics whose blocks had already been made less dense. This was the result of the techniques of restructuring of which Jacques Tournant was the specialist in France. (9) Old Le Havre made up for its imbalances by the picturesque character of its streets and its extraordinary density. (10) As new Le Havre did not know to modify these structures, it brought in order and hygiene by reducing the density, thereby reinforcing the existing imbalances... Aside from the judgments passed upon it, it appears today that the reconstruction of Le Havre has left as its legacy an architectural and urban heritage of an exceptional quality.

NOTES

- 1 P. Dalloz, "La reconstruction du Havre", *Technique et Architecture* n° 3, 1956.
- 2 L. Benevolo, *Storia dell'architettura Moderna*, vol III, Dunod, Paris, 1979, 214 – 217.
- 3 M. Tafuri, F. Dal Co, *Architettura Contemporanea*, Milan 1976.
- 4 We have been to consult T. Sardnal, A. Le Donne, P. E. Lambert, P. Vago, J. Tournant, G. Lagneau, and A. Heaume. See the interviews with them in J. Abram, *Perret et l'Ecole du Classicisme Structuel*, vol. II, Nancy 1985.
- 5 The letter is dated 4th May 1944.
- 6 "La reconstruction du Havre", *Technique et Architecture* N° 7-8, 1956, pp. 333 - 343.
- 7 "Le Havre", *L'Architecture d'Aujourd'hui* n° 7-8, 1946, pp.46- 47.
- 8 Cf. "L'atelier de reconstruction du Havre", *Art Present* N° 1, 1946, pp. 31 - 35.
- 9 See J. Tournant, "Le financement et l'économie de la reconstruction", *Technique et Architecture*, N° 7-8, 1947, pp. 386 - 390 and "L'exemple du Havre", *Technique et Architecture*, N° 1-2, 1951, pp. 34 - 39.
- 10 In the old Havre a few blocks had a density of over 1,500 inhabitants per hectare, while in the new Havre the density is lower than 700.

Edwin S. Brierley

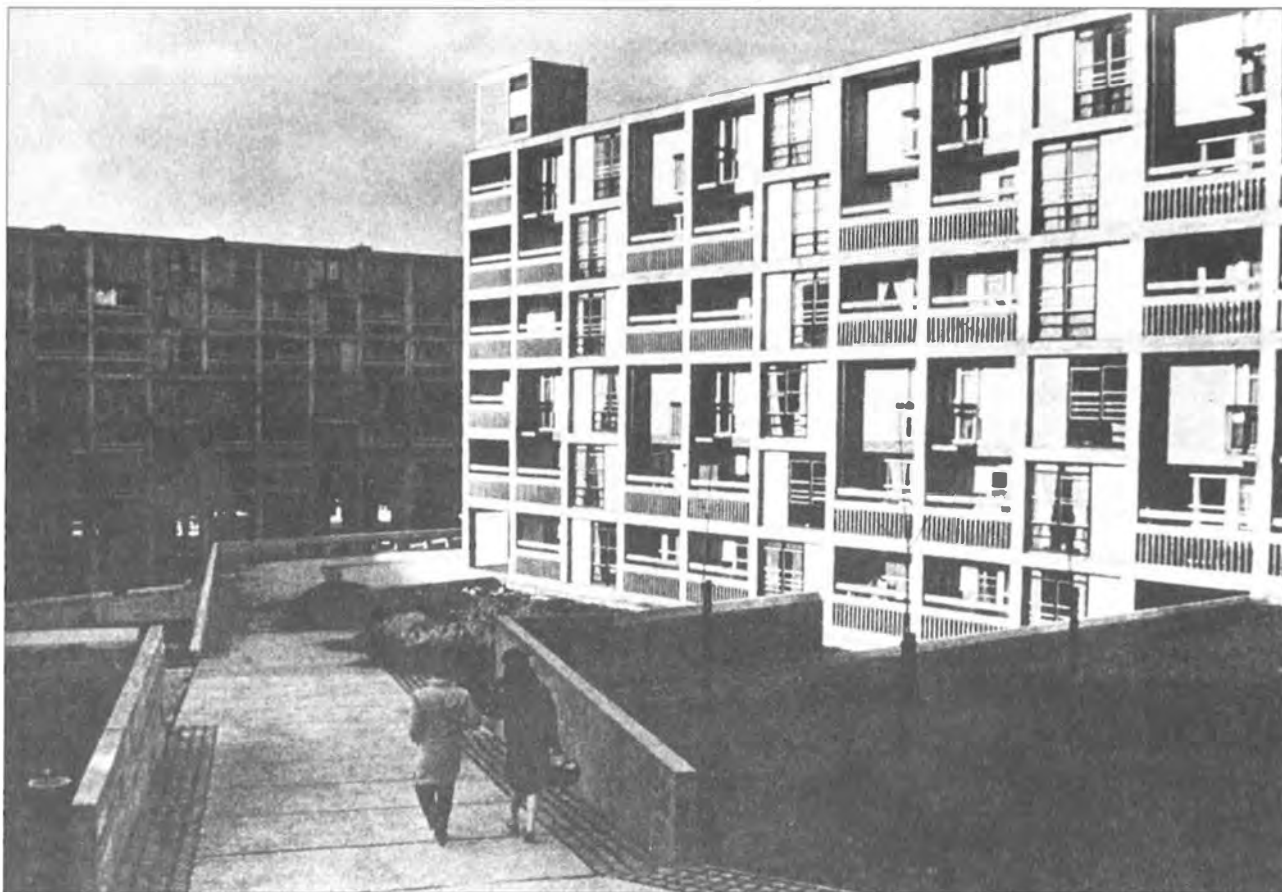
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The Significance of Park Hill Sheffield for the Modern Movement

The Park Hill Housing Project in Sheffield is the culmination of an approach to design whose antecedents lie in notions of Deck access housing and the idea associated

with Team Ten of "streets in the sky". Indeed, the precedents for Park Hill may be traced to the housing of Michiel Brinkman in Spangen, Rotterdam of 1921, and to the work of Le Corbusier. Design work in Britain at that time by the Smithsons and John Voelcker of Team Ten were also influential on the form of Park Hill. It can be argued that the scheme is the most complete project of Deck access housing in Europe. The thinking behind the design is also an example of the austere modernism after the War which was defined by Reyner Banham and others as neo-brutalism. Park Hill also demonstrates an attitude to design which is based upon both social and cultural factors. The scheme reflects the Modern Movement's concept of spaciousness and the application of modern techniques of building. Designed by Jack Lynn and Ivor Smith working for Lewis Womersley of the Sheffield City Architects Department, the scheme was designed from 1953 and completed in 1960. It is presently being advocated to the Department of National Heritage as a project worthy of listed-building status by English Heritage. The topog-

raphy of the site was particularly receptive to a deck access scheme. There is a steep fall to the north which is the approach to the city centre. A series of interconnecting open courts are formed which increase in scale from the south to the north and this is reflected in the height of the blocks. The roof line of the project remains constant from four story to fourteen storeys and the increase in height is determined by the fall in the site. Decks are placed at every third level so that three of the four decks have access from ground level. This is made possible due to the topography of the site. The blocks of maisonettes are joined at a 120-degree angle which gives the characteristic form of the courts and allows sunlight on at least one facade of the courts at some time during the day. One of the concepts of the proposal was that the cultural and social interaction found in the traditional street pattern of low-cost urban housing would be reflected by that of the Deck access system. A theoretical framework for this can be seen in the Team 10 Primer (Smithson 1962) and also in the Unité d'Habitation projects by Le Corbusier. Jack Lynn, one of the designers



One of the courts of Park Hill in Sheffield. Photo: Roger Mayne, for Architectural Design of September 1961

of the project, acknowledged the influence of Le Corbusier. At the time of the design of Park Hill CIAM was still in existence, however Team Ten had only recently been formed. It is possible to argue that although Park Hill has been associated with the thinking of Team Ten it was also influential on their work. Arguably the scale of the project and the social basis for the scheme may also reflect the utopian thinking of Fourier and Guise in the 19th century and also the social housing megastructures of 1930s Vienna. For, the Park Hill project contains not only 994 dwellings for families, but also a shopping centre, a primary school, community hall, laundry and a number of pubs which are integral with the housing blocks.

A Social Attitude to Design

The idea that the quality and form of the environment could affect the social well-being of the inhabitants was central to the thinking of architects with a social attitude to design. That mode of thinking was at the core of the RIBA annual conference which was held at Sheffield in 1963. It was this general approach that would be ascribed to by the design team of Park Hill. The thinking is best illustrated by the modernist planner Walter Bor, who found it difficult to find any conclusive evidence of the way the environment influenced social well-being, but felt that "by providing the best possible physical surroundings we can only hope to make a partial contribution towards better social productivity" (Bor 1963). Jack Lynn's thinking is to be found in his observation at that conference that in some way social needs may be defined and that the architect may then in some way be able to apply them. In this field they may ask sociologists to help them in order to draw attention "to the need for research into the functional uses of space between houses, or the groups by which houses should be put together and matters of that nature... (that) would be useful to housing architects" (Lynn 1963). In the immediate years after the War there was a concern for the economic value of design decisions and utilitarian values which were related to a period of austerity and established in a way an ethical approach to design in which aesthetic values were seen in the honest expression and use of materials. There certainly was a European and Scandinavian influence at the time (Banham 1966). The idea of Park



A view of the deck. Photo: Roger Mayne, for Architectural Design of September 1961

Hill was one of redeveloping an area on a hillside to the east of the centre of Sheffield of what were seen to be unhealthy slums. Jack Lynn felt this area to be the worst of the slum-clearance areas which was "a mixture of back-to-back houses built around small courts or against the steeply sloping sides of the hill" (Lynn 1962:449). The motivation behind the concept was based upon both a social commitment to design, of egalitarian values, and of modernism in the way in which the proposals were to be conceived and implemented. To a large extent the proposals reflected the spirit of the times after the War. Although the 19th-century housing to be redeveloped had been classified as a slum, there had been a strong community feeling in the area, and when the new scheme was built it was "interesting to find that of the former residents who had to move from their slums to outlying Corporation estates many... returned to live on Park Hill" (Crooke 1961: 393).

The Deck Access System.

The evolution of the deck access system at Park Hill is generally accepted to result from the idea of the Smithsons which was developed in an architectural design competition for Golden Lane, London 1951. By placing the deck on the exterior of the block the position was considered to alleviate the problems encountered with the "rue intérieure" of Le Corbusier's Unités, that of a dark corridor lacking views out.

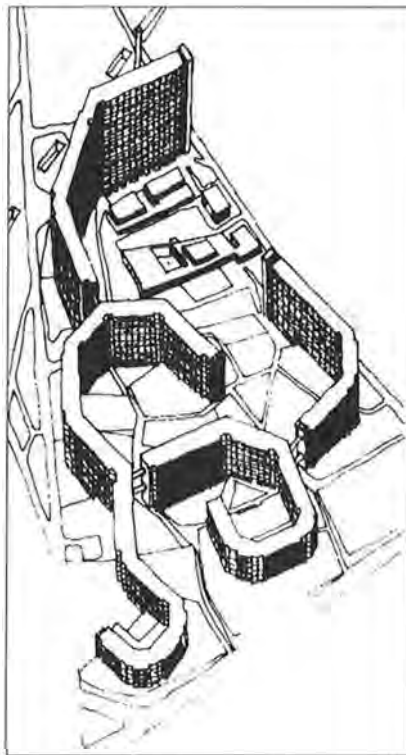
It is interesting to note that the concept of the "rue intérieure" had a precursor in the utopian project by Fourier of 1808 for public housing known as the phalanstery. In that project, Fourier incorporated internal galleries, "rue galerie", as a connecting walkway through the scheme. The concept of the exterior deck was also used in the competition for Golden Lane in a scheme submitted by Jack Lynn and Ivor Smith, and it is felt that this scheme ultimately led to their appointment at Sheffield (Banham 1966: 42). Lynn acknowledges the influence of the Smithsons on their work which they further implemented in a large scale study for the Rotherhithe area of London's docklands that developed the street deck by incorporating shops, pubs, and play areas. In that study they emphasised the socio-economic advantages of large-scale urban development, and Lynn states that it was "this Rotherhithe study which was instrumental in our joining the staff of J.L. Womersley at Sheffield" (Lynn 1962: 448). One of the precedents for the Deck access system is that of the Spangen, Rotterdam housing scheme of 1921 designed by Michiel Brinkman. Although Jack Lynn does not refer to this project in the context of Park Hill, the Smithsons would be familiar with the design. They were in contact with Bakema, the leading advocate of the Brinkman scheme, from 1947 and from 1953 to 1959 were in regular contact with Bakema and others of the CIAM group who were preparing for

the tenth meeting of CIAM which ultimately led to the formation of Team Ten. This period coincides with the design, from 1953 to 1957, and building, from 1957 to 1960, of Park Hill. It is of some interest to note that Bakema's article on the Spangen scheme appeared in the Dutch magazine *Forum* in 1960 (Bakema 1960) after the completion of the Park Hill scheme. Bakema, however, did not visit the Sheffield scheme until 1965. One further reference to Bakema's discussion of Spangen is useful in order to illustrate the way in which the experiential awareness of the environment was reflected in the narrative commentary. In his description of the access galleries at Spangen, he uses the term: "streets-in-space" in a similar manner to the way that Team Ten and their followers referred to Deck access housing. Bakema's description of Spangen has a sense of immediacy, of involvement that came to be associated with the Team Ten notion of place: "While walking through the many, rather gloomy streets of the district of Spangen it suddenly happens that the street wall, the size of which cannot be sensed, becomes a communication in space with walls and windows of rooms, undersides of galleries, green strips of gardens, a gateway leading to a square ... Then high up, you see a street wall with grown-ups wheeling their bicycles or tiny tots playing ball. Walls of rooms and streets determine one another. First and foremost they make the total space in which they were shaped inhabitable and therefore safe" (Bakema 1960). That description is also evocative of the Smithsons' illustration of their Golden Lane scheme, and could almost be taken as referring to Park Hill. During the first years of occupancy the scheme was studied by a sociologist who lived in the project. The sociologist, Mrs. Demers, made several positive points in her assessment. One of the good things of the deck system was that the dwellings were arranged so that "People could have maximum privacy or maximum contact whichever they wished" and the younger children could "play quite happily on the decks" where they could be seen and were safe (Demers 1963). In a recent review of 1995 of the way the scheme has worn over time, Cruickshank agrees that despite the repetitive and at times dispiriting appearance of the decks, some tenants do use them as Lynn and Smith intended, and al-

though "it has become the convention to dismiss the deck access system in public housing as a failure... Park Hill shows this system can be made to work" (Cruickshank 1995: 59). The decks which were intended to provide the setting for communal interaction, in a way to recreate the life of the terraced housing and pavements, are cut off from the dwellings and no windows overlook the decks. However lively incidents do occur on the decks, milk floats deliver to the doorsteps and assemblance of street life is to be found.

The Appearance of Park Hill

The appearance of Park Hill reflects the contrasting values of austerity and optimism associated with the years after the War. There was the concept of utilitarian



An aerial view of Park Hill. Photo: Roger Mayne, for Architectural Design of September 1961

values and of the ethical stance of truth to the nature of materials which led to an expression of brutalism. However, a major influence upon the form of the scheme resulted from the decision not to use a large panel-system build approach which had been given some consideration by Lewis Womersley. The slope of the site and the need to provide a framework within which a variety of types could be accommodated

led to the use of an in-situ concrete frame which delineates the formal expression. Contained within the concrete frames are simple brick panels and storey-high window frames which are relatively free of requiring maintenance. The brick panels vary in colour with the deck level, the lighter coloured brick panels being at the higher levels. Some of the panels are set back from the facade and balconies are provided to kitchen spaces and some of the bedrooms. The planning of the levels is divided into three zones, the central of which is composed of circulation spaces, staircases, toilets and bathrooms and generous service ducts. The deck is located on either the northern or eastern side so that the living rooms receive sunlight during some part of each day. Bedrooms are located in general above or below the decks in a zone of 2.800 metres (or 10 feet) and overlook the internal courtyards of the scheme. The two main points of criticism which are made of the plan arrangement are that the servicing and circulation zone effectively cuts the living areas off from the deck and that noise from the decks can invade the privacy of the bedrooms. Jack Lynn was fully aware of the social implications of the typology of housing form – and particularly so when, as at Park Hill, the dwelling unit would be mass produced. He recognised that up to that time collective housing was not a traditional English habitat and that dwelling type affected community structure (Lynn 1962:448). In achieving a flexible structure which would support the varying storey heights and both the range of dwelling types and the ancillary functions of pubs, shops and so on, the choice of an exposed concrete frame seemed appropriate. This also reflected socio-economic considerations as well. Banham, whilst recognising that the brutalist aesthetic of the design was innovative in aspects of the design and not simply a direct influence from Le Corbusier, considered that the way the concrete frame expressed the cellular nature of the grid was such that "it simply looks as if the architects had more important things on their minds than facade-patterns". Probably the image of Park Hill is more concerned with reflecting the internal arrangements than abstract notions of architectural expression (Banham 1966: 132). Over the years the concrete has weathered, the board marks from the shut-

tering has given the structure a tarnished quality, and twice a year the spalling concrete is removed and repaired, but the challenging vigour of the brutalist architectural expression is in a way a clear definition of post-war utilitarian modernism. A further area of innovation at Park Hill was that of the servicing system of the dwellings, in particular the district heating system and a kitchen waste disposal system known as the Garchy system. The Boiler House was designed to be fired by fuel oil and district heating was intended to be supplied to over 2,300 dwellings, shops, public houses, laundries and schools. The system was designed as a hot water flow distributed system and on the whole worked quite well. The Garchy waste disposal worked on a suction principle – from the kitchen sink and from a series of pipe ducts the waste was collected at the lowest part of the site near to the Boiler House. Unfortunately, over the years and with the use of disposable nappies by the young families of Park Hill, the pipes of the Garchy system became clogged up and that way of waste disposal had to be abandoned and a more conventional means of rubbish collection was adopted (Snow 1995: 61).

The Significance of Park Hill

The aims of Womersley, Lynn and Smith reflected the avantgarde after the War. They accepted modernism in an uncompromising way and were rigorous in the development of the concept of Park Hill, but they also were committed to improving the living conditions of the people. At the time of its completion a perceptive piece of criticism appeared: Park Hill "is not attempting to be Architecture with a big abstract A; but more directly building which has arisen from observations and propositions to do with specific people in a particular place, and the environmental tools

they need for life and community" (Lewis, 1961: 397). The scheme was not intended to be a proposition about architectural style, rather the appearance of the scheme reflected the content of the design, and there is a feeling that the designers were not concerned with making judgements about style. The same was not true of other housing projects of the 1930s, such as the Viennese superblocks and social projects in England such as Quarry Hill flats in Leeds, which had stylistic influences. Indeed, unlike other design work of that time, the architects of Park Hill did not attempt to consciously create a neo brutalist building, yet they were concerned with the socio-economic and functional implications of their work. Possibly there is an influence from the analytical CIAM thinking before the War. Banham identified the thinking that led to Park Hill to be based upon the convictions of the designers and the commitment of the architect to the needs of society. "The moral crusade of brutalism for a better habitat through built environment probably reaches its culmination at Park Hill" (Banham, 1966: 132). There is also a social ideal which Park Hill represents. This ideal is a realistic one, it is not utopian in the sense of Fourier's of the 19th century. The redevelopment of Park Hill set out to replace the existing slum housing and thereby provide social housing in the centre of Sheffield, but it did so in a manner that provided social and communal facilities for the people. One of the strengths of the scheme has been the sense of place and identity created by the design. Perhaps not all the social aims have been achieved – particularly so if we consider Lynn's approach: "Are there sociable and anti-social forms of access to houses? In our zeal to erase the evils arising out of a lack of proper water supply, sanitation and ventilation, we had torn down streets of houses which despite their sanitary

shortcomings harboured a social structure of friendliness and mutual aid" (Lynn, 1962: 448). This attempt to reconcile the culture and social issues within the context of housing form was central to then contemporary discussions of the CIAM meetings after the War and to the 1960s thinking of Team Ten, and in this respect the significance of Park Hill should not be undervalued.

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GARDENS AND LANDSCAPE



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Green Modernity: The Transcendence of the Work of Burle Marx

The Brazilian modernist movement was a broad based-phenomenon, affecting large areas of our cultural expression; its most effervescent period was from the 1930s to the 1960s. Unlike in other countries, where it manifested itself with vitality in only some cultural fields, in Brazil there were no restrictions. During these years, our landscape architecture, visual arts, architecture, literature, and music were equally intense and significant. They did not stagnate, but dialogued, relating and mutually influencing each other. This can be understood in light of the process of change operating at the international level, a process directed by the need to adapt the universalizing proposals of the vanguards at the beginning of the 20th century to specific



Praça Euclides da Cunha. Recife, Brazil, 1935.

realities. The Spanish critic Josep Maria Montaner recalls that in architecture, and especially in the period after the World War II, "we witness the symbiosis of modern ideas with the specific approaches of the contexts, cultures and identities, their tradition, their culture of space, their available material, their state of technological development and their creative capacity." (1) This same unrest was permeating most areas of culture. Assimilating the possibilities opened by the historic vanguards, the Brazilian modernist movement embraced the goal of consolidating an essentially Brazilian vision. It promoted self-knowledge regarding territorial and cultural diversity, and chose Brazilian subjects as matters of interest, simultaneously denying the foreign. From the visual arts to landscape architecture, running through literature and music, tropical nature became one of the most privileged themes. It found a truly singular expression in the work of the landscape artist Roberto Burle Marx. Until the first

three decades of this century, native Brazilian flora had little value for most of the population. Although there were more than 50,000 species, autochthonous vegetation was absent from public and domestic Brazilian gardens. As a rule, exotic plants brought from distant lands were most esteemed, preferably those with the European style and seal of approval. The starting point for Burle Marx was exactly to seek to counteract this prejudiced mentality, creating a new vision of tropical nature, following the opening created by Auguste-François-Marie Glaziou, a French landscape artist who worked in Rio de Janeiro at the end of the 19th century and pioneered a different perception of tropical flora, using it for some public spaces he designed in the capital. Named director of parks and gardens for the city of Recife in the northeastern region of the country in 1935, Burle Marx



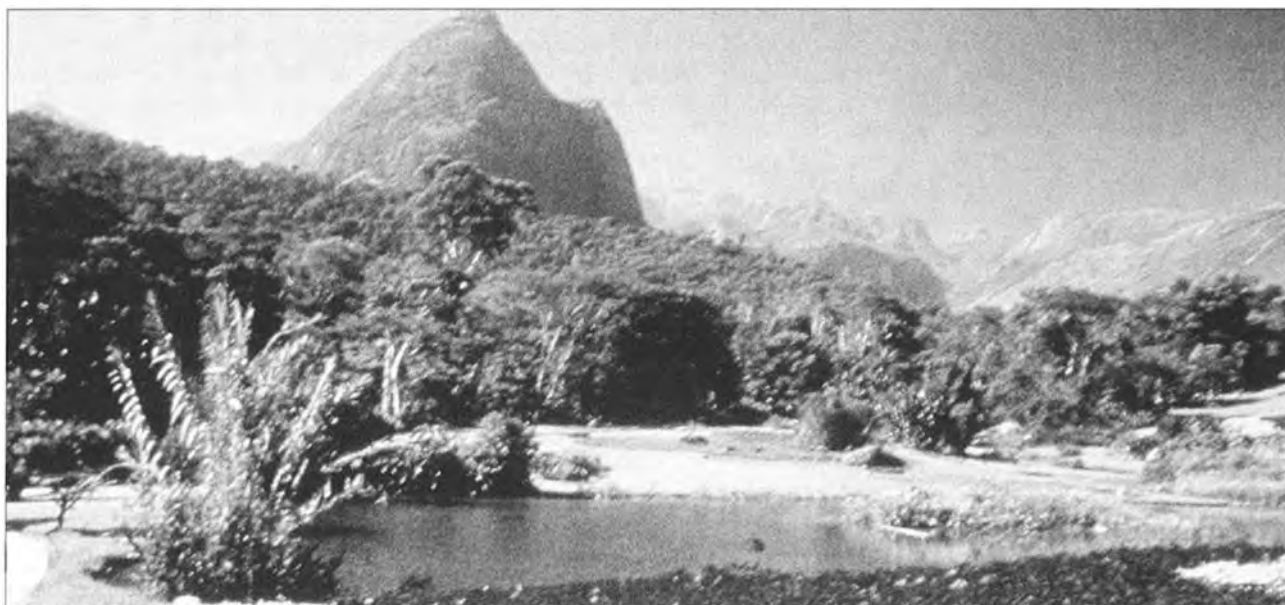
Gardens of the Ministry of Health and Education. Rio de Janeiro, Brazil, 1938-45.



remodeled old squares and local public spaces, and implanted his first gardens with plants typical of Brazil. The Praça Euclides da Cunha and the Jardim da Casa Forte are from this period, the latter employing vegetation characteristic of the northeastern brush, especially several varieties of cactus, such as the mandacarus. With their phallic forms, asymmetrical and slightly pot-bellied, these same mandacarus that had been repudiated less than a century ago as some strange structures created by local nature, were then studied in the paintings of Tarsila do Amaral beginning in 1923, and reinvented as symbols of national modernity. Burle Marx knew these surrealist works, he knew the *Abaporu*, from 1928, evoking a seated human figure alongside a mandacuru and his vision was no doubt influenced by this experience. Nevertheless, Tarsila's biomorphic compositions were not fertile sources of formal inspiration for his gardens. His contact with Hans Arp's work from the 1920s was much more important in consolidating one of the main features of his production from the 1940s to the 60s, – the curve as the structuring element of the landscape. Valuing above all the role of masses of creeping vegetation and of bushes in landscape composition, Burle Marx took Arp's essays as a starting point in establishing during this period an innovative syntax based in organic forms, whose first expression can be seen in the gardens of the Ministry of Health and Education in Rio de Janeiro

(1938-45). For this Brazilian architectural landmark created by Lúcio Costa and his team, in consultation by Le Corbusier, the landscape artist designed gardens at the ground level and on the roof covering that become emblematic due to their integration and dialogue with the architecture of edification – a characteristic feature of Burle Marx' work, which he maintained up to the end of the 1960s. Architecture and landscape art joined forces to create spaces with identity, to create places. But they were allied mainly "to transform the American non place into place" as Montaner pointed out. (2) Although other equally significant factors were decisive in the development of his landscape work, a peculiar feature of Burle Marx' personality stands out. He not only dedicated himself to landscape art, but to painting, drawing, sculpture, engraving and tapestries. These multidisciplinary interests enriched the body of his production. For example, he tried out in painting and engraving themes inspired in nature, and, at the same time, transposed his refined artistic sensibility in harmonizing color, form and volume to his garden projects. Some still persist in a misunderstanding, confusing the gardens with two dimensional structures, as if they were simple paintings placed on the ground, conceived to be fully fluid only from an aerial views. But this is not correct. Anyone who has walked through one of his gardens knows that Burle Marx not only capably handled the potential of the tropical flora in spatial terms, but

also took the observer walking through the space into consideration. He just used diagrams and two-dimensional plans as architects do when they represent their buildings in blueprints. On several occasions, he composed gardens without an overall plan or without fully working out the details beforehand – he defined them directly in the field, even when dealing with highly complex works over extensive areas. Icons of modern Brazilian landscape architecture such as the summer residence gardens of Odette Monteiro in Correias, Rio de Janeiro (1948) or the gardens at the home of Olivo Gomes in São Jose dos Campos, São Paulo (1950) were created in this way. Throughout the history of the gardens, the structured enclosures for vegetation have always been considered much more of a problem of form than of color. In the traditional hierarchy of compositive values in garden art, color has always played a supporting role, often restricted to the dominant green characteristic of most vegetation. Formal gardens and not chromatic gardens have been constructed throughout the centuries. Great extensions of color were rare proposals, and even when they existed, such as in the parterres of the French baroque gardens, their mission was limited – accentuate the form. In this respect, Burle Marx diverged profoundly from landscape traditions, looking at the potential and chromatic diversity of tropical nature. He thought of colors as structural and dynamic values in the garden lay out, often approximating



Summer residence gardens of Odette Monteiro. Correias, Brazil, 1948.



Flamengo Park. Rio de Janeiro, Brazil, 1961.

the chromatic autonomy as a visual phenomenon tried out by Henri Matisse in his paintings. The gardens of Odette Monteiro are those which best translate this radical transformation. Exploring harmonies based in extreme contrast as a guiding strategy, he emphasized the significance of color not just in the (temporary) flowers but also and mainly in the leaves (especially of perennials) whose tones range from yellow to red, from white to gray. Surely his proposals would not have been possible without a full understanding of plants as living beings, without the botanical and landscape research that he undertook. On several occasions, Burle Marx went to meet Brazilian flora in its natural habitat. He organized scientific expeditions with multidisciplinary teams who traveled throughout the Brazilian countryside, especially in the regions of the Amazon, Mato Grosso, Goiás, and Bahia. Beyond studying the vegetation in its environment, these expeditions aimed to gather samples for later use. These initiatives were directly responsible for the discovery of numerous plants until then unknown to science

– different species of helicon and philodendrons, for example. The partnership with botanists frequently extended to the garden projects. With them, Burle Marx learned to observe the behavior of plants, to understand the relationships that plants establish among themselves, to verify their specific needs in terms of substrata, light, water and nutriment for their proper growth. In the Araxá Park in the state of Minas Gerais (1943), for example, he worked with the botanist Henrique Lahmeyer de Mello Barreto, his tireless teacher. The ample park, structured in accordance with ecological concepts, grouped indigenous Brazilian plant families, until then practically unknown to the public, into 25 sections (of which only 15 were completed) – plants placed among rocks, brush, desert and other settings. The concern with humanizing the quality of life in the cities by means of projecting green spaces and parks was a recurring theme in his work. He conceptualized two of the major urban green areas realized on the Latin American continent in this century – the

Parque del Este, developed on 70 hectares in the heart of Caracas, Venezuela (1956-61) and the Flamengo Park created on 115 hectares along the water's edge in Rio de Janeiro (1961). From 1949 until his death in 1994, Burle Marx also dedicated himself to the construction of the Santo Antônio da Bica farm in Barra de Guaratiba, Rio de Janeiro. He lived there for a large part of his life, maintaining it as his research laboratory. On 800,000 square meters, he cultivated species that he brought from his expeditions and other forays into the outside world. It constitutes the largest collection of Brazilian plants known, still today larger than any other Brazilian or foreign botanical garden. Taking advantage of the topographical and environmental diversity of the tract, he composed a series of garden spaces that function autonomously, or can work together. He also built greenhouses for the study of specific plant families, such as begonias, orchids, and the bromeliads. Today this work is maintained by an institution created by his friends and collaborators, but it has not yet been possible to open it to researchers and the public at large, as the landscape artist desired. An understanding of landscape architecture in the 20th century necessarily involves an evaluation of the legacy of Burle Marx. The growing interest in his landscape production manifested today by international critics points to this fact. In 1991, the Museum of Modern Art in New York dedicated a retrospective and book-catalogue to Burle Marx. For us, as Brazilians, the work of Burle Marx represents various challenges. We do not know the real extent of his works, how many gardens he designed, how many were neglected, or how many have been preserved. His work demands that we keep it alive, deepening our understanding of its significance in our cultural context through new studies.

(Translation: Ann Puntch)



Santo Antônio da Bica farm: Research Laboratory and home of Burle Marx. Barra de Guaratiba, Brazil, 1949.

NOTES

- 1 Montaner, Josep Maria, *Después del Movimiento Moderno*. Editorial Gustavo Gili, Barcelona, 1993, page 8.
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Landscape for Living; The Landscape of the Modern Movement in the Netherlands

Introduction

The aim of this paper is to review Dutch landscape architecture of the Modern Movement, and to investigate modernity with regard to residential planning and design, the environment of the home. The study investigates the way foreign influences

were amalgamated and adjusted to fit regional characteristics. It will then proceed to uncover where the main Dutch contribution lies. The Netherlands is one of the most densely populated countries in the world, but it has not been totally built over or spoiled with development. Indeed the country has retained a centuries-old tradition of horticulture and agriculture, and is famous for its tulips, tomatoes and cheese. This is reflected in landscape terms in the Dutch being careful managers of the land, and reclaiming land where possible. The Dutch are renowned as builders of dikes and polders. As a result of the reclaiming of the natural landscape for agriculture by engineers and mathematicians, it is generally divided in rectilinear plots. Nevertheless there are considerable regional distinctions and the manner of colonisation and parcellation vary locally, in relationship to environmental conditions; the level of the water, existing vegetation, and the soil. So whilst there is a "typical" Dutch landscape (flat, with large skies, windmills, avenues of trees, and of course sailing boats) this is not typical for the whole of the Netherlands. (Fig.1) This artificiality of the landscape, the absence of remaining untouched wild tracts of land, the intensive cultivation of available ground, and the pressure provided by

ever extending towns have given the Dutch a very specific appreciation of nature. They have been quite willing to accept semi-natural, or any unbuilt landscapes, as "nature". From the end of the 19th century this resulted in a special appreciation of heathland, a semi-natural landscape resulting from sheep farming practice. It also meant the classification of the 17th- and 18th-century country seats with the former plantations and avenues interspersed with agricultural fields, once the embodiment of an ideal Virginian landscape, as "natural beauty". This apparent contradiction has been maintained throughout the 20th Century, with nature conservation being the popular result, heavily promoted by a biologist and teacher, Jac.P.Thijssse. The definition of what a modern landscape consists of is difficult to answer: a caricature of the modern house is easier: concrete (new materials), white, a flat roof, cantilevering, etc. However problems occur with a branch which is now more and more recognised as a strain of modernism, so-called "organic modernism". This is generally characterised by using local traditional materials, but perhaps looking at new ways of applying them and achieving new forms. With landscape this is similar, and we might define modern landscape



A typical Dutch landscape near Rotterdam.

architecture as a search for new forms, unbound by historical conventions; looking for new ways of living, a relationship with nature fitting the cultural and political developments of the period. In 1993 the landscape architect Hans Warnau published an essay in which he attempted an analysis of the modernist tradition. In a convincing way he managed to note a number of criteria which formed a basis for the design philosophy: legibility; the ordinary, not ornamented; against the sterility in public greenspace; the duty of the designer. He then continued to list the external characteristics of the ideas of the modernists, with notes on the straight line; the relationship between inside and outside, the terrace and the margin; the beacon; and land art as the final point of the era. It would take too long to review and rephrase these criteria and characteristics, but there will be reference to those throughout the paper. (1)

Historical Background

During the first quarter of this Century, the landscape style of garden design was still being promoted in the Netherlands, particularly by the influential landscape architect Leonard A. Springer (1855-1940) who was rather conservative and remained an advocate of the more informal layout. He noted that the contemporary German architectural gardens which influenced the Netherlands from around the turn of the century were depressing and that they "negated all natural beauty". (2)

Springer maintained that gardens ought to be in harmony with their environment, and hence the only artificial, i.e. architectural gardens permissible were those in the artificial environment of the city, and in the smallest gardens where it would not be possible to emulate nature in a satisfactory manner. Springer gave his views on landscape architecture historical credibility by illustrating (in 1924) that art and nature had become one, and that the Netherlands was so beautiful because of its historic estates (the result of garden art). These estates were being recognised as nature by the population at large. (3) Simultaneously, from the end of the 19th Century onwards, there was a school favouring the so-called nature garden, which was promoted by landscape architects such as J.O. Hazekamp and Geertruida Carelsen, and H.O. van der Linden van Snelrewaard. These gardens

were laid out "according to the laws of nature", included native plants, rejecting cultivars and traditional pruning régimes in order to obtain a more natural appearance. The main concern was that a garden should display natural beauty, but contrasted thereby with Springer who had generally agreed with the principles but noted that there was no use doing this between the walls in a small garden in the city. (4)

Sources of inspiration

Springer is one of those who constantly commented on developments abroad. He referred to geometric English gardens as harking back on times past, lacking a sense of proportion to the environment, referring to the English as extremely conservative, and to the designs by Lutyens as small-minded and too detailed. He also noted his work was readily absorbed by Dutch designers. (5) Searching for contemporary examples the number found which actually display these English characteristics is slightly disappointing. One is shown at Remmerstein in Rhenen by the landscape architect Tersteeg (6). Other examples appear to show a dominance of German influence. Commenting on the German example, Springer referred to the "ultra-modern points of view of division and decoration of the latest gardens" as designed by Leberecht Migge, but noting that there was no grandness of ideas. Here we see how Springer was unable to acknowledge the social implications of Migge's proposals, or recognise the significance of Muthesius or Olbrich, whom he similarly accused of being small-minded. (7) It might be obvious that the gardens designed by French artists would also be out of favour, Springer denouncing the "derailed conceptions" where nature was excluded from the garden (8). If Springer's texts would have been taken to heart, foreign influences would have had little effect on the Netherlands, but in a 1930 article the landscape architect J. T. P. Bijhouwer explained how foreign and national influences were being amalgamated, but not copied, in the creation of a distinct Dutch style. (9)

Achievements before the War

One of the main points of discussion in which Dutch landscape architects sought solutions was planting design, and how this related to the landscape. New ideas

emerged from the German Willy Lange and the Dutchman Hartogh Heys van Zouteveen. Lange in his book *Garten-gestaltung der Neuzeit* (1907) had proposed the arranging of plants according to "physiognomy; the external character of the plant as it is determined by its living conditions." Van Zouteveen suggested the selection of plants which occur in the temperate zone in similar plant communities. In the following years the popularity of nature gardens was increasing in various forms, with so-called phytogeographical plantings and gardens attracting great popularity, where plants were arranged according to their countries of origin and the natural plant communities or associations. These had particularly been promoted by the curator of the Amsterdam Hortus Botanicus, A.J. van Laren. A well-known contemporary example of this method of planting was the Arboretum of Tervuren near Brussels, and was proposed for the Amsterdam Bosplan, and carried out in the Zuiderpark in The Hague. At the same time Thijssse promoted the educational use of so-called "instructive gardens" which contained native plants originating from the locality. In short it is clear that Dutch landscape architects saw their inspiration for a new style in garden design as originating from the new philosophy regarding planting. Bijhouwer had noted that whilst a new style had not developed yet, this was being sought in native art forms and nature. He suggested that the cottage garden, the square and public park find their inspiration in native art forms; the modern landscape garden would find this in natural vegetation. Bijhouwer's slogan for a new landscape architecture was "Back to nature and native art!" The lack of a conception for modern design in the period before the War can be clearly illustrated with the commissioning of the design for the Amsterdam Bos, one the largest of the contemporary public parks. The architect Cor van Eesteren had been asked to produce a design, and went to Bijhouwer, who was then chairman of the Society of Garden Architects, for advice. The latter recommended: "I would but do it, you would probably do it as well as one of us, or probably better". (10) The executed design for the Amsterdam Bos followed Bijhouwer's general recommendations, and moved away from both monumental symmetrical



The Kralingse Plassen, Rotterdam, ultimately designed with the involvement of the landscape architect J. T. P. Bijhouwer.



The garden village Vreewijk in Rotterdam consisted of a total of eight types of houses repeated throughout the scheme, which was made interesting through the way the houses were arranged and the variation in the arrangement.



Mixed housing development in Haarlem by Van Loghem, with generous streets, front gardens and rear gardens joining onto communal spaces.

design and the landscape style of layout following the English example, which was unsuited to Dutch conditions, and attempted to find a new national style. Van Eesteren produced an outline plan which was worked out in detail by J.H. Mulder, with great attention to levels and slopes. Appropriate slopes were not only of visual importance, but were also required to enable efficient

drainage so that open areas could be used for recreational purposes. Thus a park was conceived directed by functional constraints, which in layout achieved monumentality, without harking back to historical styles or German examples. The Amsterdam Bos of course was intended as part of the system of parks proposed for Amsterdam, amongst others by the architect H. P.

Berlage. Like all other major European towns in the early twentieth century, there was a great concern about park systems to improve air circulation in the town, for recreation, and contact with nature. Rotterdam was another of the more progressive cities, which had already executed a Bos plan in the Kralingse Plassen in which an earlier design by Springer was rejected for a more formal, less designed approach as proposed by Granpré Molière, Kok and Verhagen, with the assistance of Bijhouwer and Koops. (Fig. 2) A few years later Rotterdam first presented its greenspace plans prepared by the delegates of the Opbouw at the CIAM conference in La Sarraz in 1936, and at the Paris Conference in 1937. Its main concern had been the provision of recreation facilities; the requirement was established for the different age groups, and subsequently the distance within which the provisions for these groups ought to be provided. The provision of greenspace per head of the population was calculated, with a hierarchy of parks; neighbourhood, district and city parks required. (11) This is much inspired by the system developed by Martin Wagner who first measured and classified these functional requirements for Greater Berlin in 1915. (12) The influence and idea of providing different types of greenspace for functions for different age groups can be seen at some of the more progressive housing of the period. One of the best known examples was garden village Vreewijk, Rotterdam. Unlike the English garden cities, the Dutch garden cities were merely an extension of existing towns, and forming a district immediately adjoining it. Vreewijk was one of the best examples of a social housing scheme largely built between 1916 and 1919, designed by Granpré-Molière, Verhagen en Kok, in a traditionalist-classicist style, later named the Delft School. A total of eight types of houses were repeated throughout the scheme, which was made interesting through the way the houses were arranged and the variation in the arrangement. The layout also provided greenspace in the range from private, communal, and district. The overall appearance however is much more urban and much tighter than the English garden city schemes. (Fig. 3) Granpré-Molière became professor at the Technical University of Delft in 1924 and

formed a main opposition to functionalism. Whilst functionalists argued that "the architect served society", Granpré-Molière, a converted catholic, stated that a human could not serve another human being, but should serve God. Due to his position in Delft Granpré-Molière was an extremely important force, which did not really diminish until his retirement in 1953.⁽¹³⁾ Despite this a considerable number of modernist projects were realised; some of the better known ones included Betondorp in Amsterdam (with Van Loghem for overall responsibility) and a mixed development in Haarlem (by Van Loghem) (Fig.4). These developments are of a much smaller scale, but what is noticeable is the fact that the attitude to and provision of greenspace is fairly similar to what was provided by the example at Vreewijk.

Achievements after the War

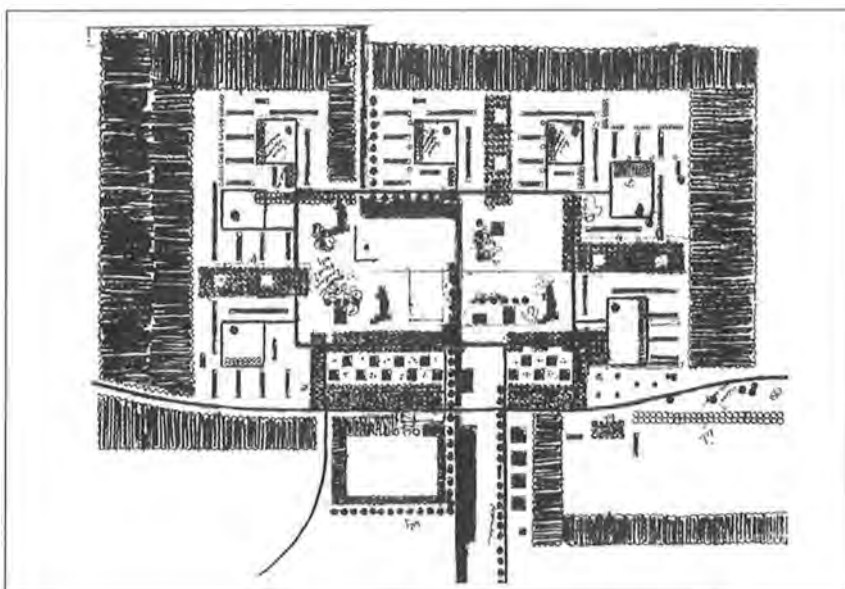
The period after the War heralded a new period of expansion of thought and experimentation for new ways of living. The large quantity of houses required necessitated the rational building methods experimented in the 1910s and 1920s, and required speed in building, and flexibility in usage which included the provision of ample greenspace. One such example

is the housing development at Frankendael in Amsterdam by the architects B. Merkelbach and P. Elling, in association with the landscape architect Mien Ruys in 1949, and the architect Aldo van Eyk detailing the playgrounds. Here two-story terraced duplex houses were built, intended to be converted back to single family homes once the housing shortage had diminished. The terraced blocks arranged in two L-shapes formed a central square which would be accessed by a road on one side only, the other houses backing onto the square and providing a frontage on the other side of the blocks. The arrangement left a reasonable sized square with diagonal walks and planting designed by Ruys, who was here clearly inspired by Scandinavian examples. The two branches of the CIAM in the Netherlands, Opbouw in Rotterdam and De 8 in Amsterdam were both involved in collaborative work in producing ideal layouts. The war had left Rotterdam devastated and open to redevelopment. Unlike other towns where the Delft School reigned, the rebuilding of Rotterdam was left to the modernists Van den Broek, Bakema, Van Tijen en Maaskant. Pendrecht was presented to the two successive CIAM conferences in Bergamo (1949) and Hoddeson (1951). The design explored the community aspect

within the neighbourhood, providing a mix of accommodation (and people). Mainly intended for harbour labourers, the majority consisted of three-story apartment blocks, some high-rise blocks and some individual houses. The whole layout was tied together and divided in communities by the street configuration in association with the green structure. The overall appearance is urban, but the generosity and provision of greenspace provide a sense of the edge of town. (Fig.5) One of the first developments to further explore the community level within a neighbourhood was Klein Driene in Hengelo by J. H. van den Broek and J. B. Bakema (1951-1958). At the same time De 8, the branch of the CIAM in Amsterdam was exploring the possibilities for a new village in the new Noordoostpolder. This polder had been started before the World War II and carried on throughout the war. The planning principle consisted of polder being planned for the bicycle with the main consideration being that the all the villages should be within half an hour's reach of each other. Thus the Noordoostpolder consisted of Emmeloord, a capital in the centre, surrounded by a ring of self-contained villages. Whilst the influence of the Delft school is clearly measurable in most of the



Pendrecht in Rotterdam, a model development of the CIAM, particularly regarding its landscape concept which holds it together, and the generosity of the provision of greenspace.



Plan of the village of Nagele by the landscape architect W.C.J. Boer (1954) (Dept. of Special Collections, Library Agricultural University, Wageningen)

new architecture, De 8 was left to plan Nagele, one in the ring of villages. The significance in the design rested in the importance attached to the central open space, the connection with the outer landscape and the arrangement of the house blocks. Whilst the group produced many different plans for alternative layouts, the ultimate plan accepted was produced by the landscape architect Wim Boer (1952-1955). (Fig.6) In the east of the Netherlands, a group of architects, concerned with the rise of car ownership and resulting impoverished life in the city developed the so-called *woonerf* in Emmen. Here the architect N. A. de Boer and André de Jong separated cars on the roads, with pedestrians, cyclists on a separate network, and the grouping of the housing in such a manner that the spaces in between become real meeting places. This housing was associated with an extensive system of greenspace in which children's playgrounds and schools were located, so that access to these would be provided without encountering the dangers of the car. Similar principles were maintained by Reichow in Germany, who designed the so-called *autogerechte Stadt*, a city calculated towards the car, and separating it from the pedestrian and public areas. The arrangement of this, however, was "organic" as opposed to a more rectilinear design in Emmen. Another example of this in the Netherlands is the rather clever arrangement of Het Dorp near Arnhem, a village for handicapped people, which

beautifully achieves the interrelationship between the surrounding landscape and the built landscape, making optimum use of the severely undulating site. Whilst a progressive group of landscape architects headed by Professor Bijhouwer, and including Mien Ruys, Hans Warnau, Wim Boer, Hein Otto concentrated on working with architects, and achieving better places to live in, they also concentrated, with another group of landscape architects on providing contents to open space. During the war years the discussion on plants and planting design had continued, and particularly due to the continuing influence from Thijsse, further gardens with native plants arranged according to their natural habitats were laid out. The town Amstelveen, just south of Amsterdam, provided a lead in the provision of "heemparks" as public parks, such as De Braak and the Jac. P. Thijssepark. The group of landscape architects involved with this and similar projects were mainly employed as civil servants, the case of C.P. Broerse, J. Landwehr and C. Sipkes. The attitude to landscape design by this group provided a counterweight to the structural landscape work by the aforementioned landscape architects and their influence can be readily measured, particularly in the work of Mien Ruys. The use of native plants was given further credibility in a publication by Van Leeuwen and Doing Kraft, entitled *Landscape and Planting in the Netherlands* (Landschap en beplanting in the Netherlands) (1959), which listed

native species to the different phyto- or plant geographical districts in the Netherlands. Thus landscape architects were able to compose plantings which were both scientifically and aesthetically acceptable. Nevertheless non-native plants were not thrown out, but it became a convention that they would be avoided in the open landscape and in forestry, whilst they would be accepted in parks and gardens, since this would otherwise impoverish them.

Conclusion

In considering the above in relation to the key words of the conference – universality; heterogeneity and regionality/regional reflections – it is possible to draw some conclusions. There was a certain universality in the appearance of the architecture of the modern movement, however it will probably be possible to prove that there were national and perhaps regional variations. In fact architects were generally reluctant to copy something from a different country, or even different designer, without modifying it to suit the location or local traditions. With landscape the situation is slightly different; a landscape has got to adapt to local conditions in order to become established. Certain plants require particular conditions in order to grow. This means that gardens have always got regional variations in the type of plants grown in them; we can therefore speak of regionality. This was also reinforced by literature on plants appropriate to specific districts. But what about regionality in design terms? We have noted that layouts in the landscape style became undesirable because of their associations and romantic inferences; nor did landscape architects before the war accept the architectural approach – symmetry and axuality sometimes applied in the newer German public parks – in that it had baroque connotations in the domination of an owner over the landscape. Also little applied were the so-called *gezwungen Linien*, the slightly curved lines, similarly popular in German design before the War. Instead the Dutch managed to reach a sort of compromise in the designs of the Amsterdam Bos, whilst at the Rotterdam equivalent, Kralinger Plas, the arrangement might be considered to be more comparable to a relationship with the Stijl art group in working with straight

lines, achieving approximately square areas which might be used for play, and not entirely being consistent with this since at the same time the natural features of the land were being acknowledged. It was the use of existing features that was another extremely important aspect of functional landscape design. It is this factor of working with the existing landscape which provides heterogeneity, and reinforces regionality. Universality and modernist Dutch landscape design were incompatible. One of the main aspects with regard to modern landscape architecture was that it investigated and experimented with new ways of living; it attempted new relationships of people with nature; and people with their cars. It is obvious that not all these trials were successful; however they served an important function in that they challenged these various relationships. Even now they are of significance in that there remain many lessons to be learned from them. It is only too easy to make the same mistakes again, and besides that the occasional re-assessment of something that was considered unsuccessful or successful at an earlier stage may actually produce a different result under different circumstances. Some of the Dutch experiments have resulted in international influences; the "woonerf" is one these. An invention of the late 1950's, it has become a generally standard detail to those work-

ing in urban landscape in other countries, from the 1980's onwards. Before that, in the 1970's, the Dutch became known for their ecological gardens and plantings. This modernist legacy had great following in other European countries. Unmentioned because it is outside the scope of this paper, is the 1950s and '60s influence in the field of landscape planning, with Roelof J. Benthem as the international figure. Before this the reputation of landscape work mainly rested on that of large-scale reclamations and – rather contradictory perhaps – in the conservation of natural landscapes. From this it is clear that the Netherlands in the 20th Century have contributed significantly to a certain attitude towards landscape, but that its contribution to designed landscape for living is fairly well restricted to the era after the War.

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Challenging High Modernist Universality: Landscape, Art and Architecture at La Fondation Maeght

„The Parthenon: stark, stripped, economical, violent; a clamorous outcry against a landscape of grace and terror. All strength and purity.“

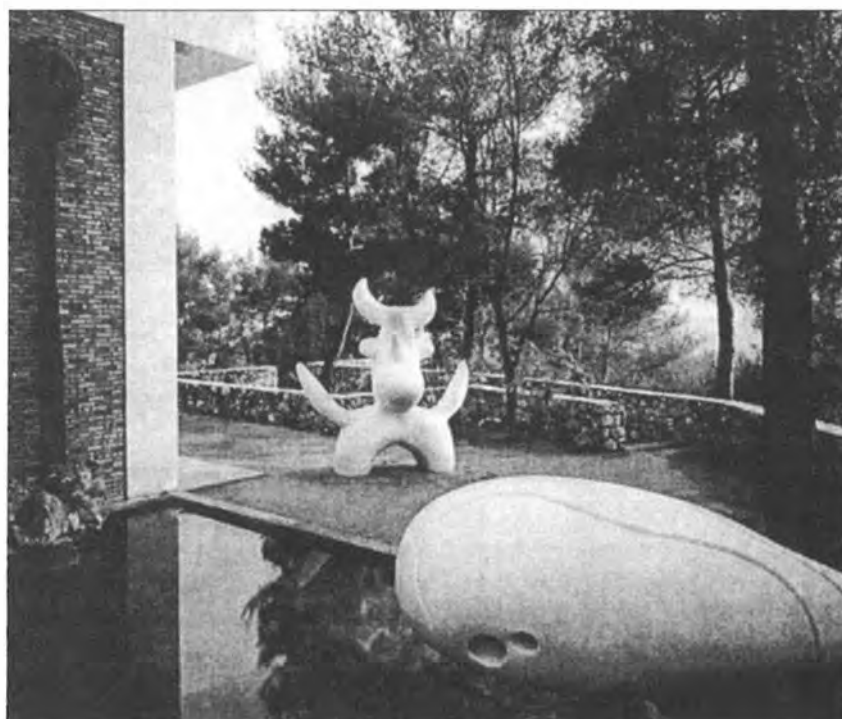
Le Corbusier's statement encapsulates High Modernist ideals: architecture as a perfect world within the world – pure, abstract and unpolluted – a world free of contradiction: a modern *temenos*.

The *Fondation Maeght* (1960-64) by Josep-Lluís Sert seems to be exactly such a universalist Modernist *temenos*: elevated on a hill, overlooking the Mediterranean, enclosed by a wall, driven by a vision, even dedicated to a saint. Sert was indeed a close collaborator and friend of Le Corbusier.

But here finish all similarities with universalist High Modernism. *The Fondation Maeght* brought together in the 1960s a group who had worked together at the Pavilion of Republican Spain in 1937: Sert, Miro and Calder. *The Fondation Maeght* provided Sert with a second opportunity to explore his ideas about a different relationship between art and architecture; thus André Malraux emphatically pointed out at the inauguration: „*Ceci n'est pas un musée.*“ This involved a close collaboration



The Braque Rooms at the Maeght Foundation. Photo: Jan Birksted



The Miró Garden at the Maeght Foundation. Photo: Jan Birksted

with Miró and Calder, which extended to other artists such as Braque and Giacometti. The resulting exhibition spaces at the *Fondation Maeght*, including their light conditions, are therefore artist-specific.

For example, the lighting conditions in the Braque rooms, and their form and sequence, create spaces following Braque's idea of „tactile and manual space“ in which „you measure the distance separating you from the object, whereas in visual space

you measure the distance separating things from each other“: in the smaller rooms, the edges are lit up and the centre left in shadow; in the longer rooms, shadow and subdued light alternate due to the barrel-vault roof construction drawn by Braque. These exhibition spaces are constructed of „Braquean“ layers of folded space.

Another example is the Giacometti Terrace. Here too we find a personal vision

of space. Giacometti has described the experiences that transformed his vision. One must remember here Simone de Beauvoir's description of Giacometti, who suffered from extreme vertigo, walking down the street and holding unto lamp-posts and trees so as not to fall down. Giacometti's described the memorable, indeed visionary moment that transformed his life and art, in the following words: „On that day – I still remember exactly how I walked out into the Boulevard Montparnasse – I saw the boulevard as I had never seen it before ... Everything was different. The depth of space metamorphosed the people, the trees...” And, describing a similar experience while he was watching a model, Giacometti wrote: „He shot up in front of me... He seemed immense to me, all out of proportion to normal size. An unknown person sat there, so that I no longer knew whom I was looking at and what I saw.” Central to Giacometti's sculptural concern with space and distance, size and perspective, mass and immateriality, is the importance of movement, since weight and balance are a function of gravity and movement. Again, Giacometti said: „A man walking in the street weighs nothing, much less anyway than a man lying down who has fainted. He is in equilibrium on his legs. One does not feel his weight.”

And it is precisely this spatial quality that is found in the Giacometti Terrace. The strong directionality of the Giacometti terrace – oriented by its length, its panorama, and its water cascade towards the horizon – creates both a sense of direction and of movement which contrasts with the walking sculptures, and a sense of directed enclosure which highlights how the sculptures face all different directions in an apparently random way.

From the Giacometti Terrace, we enter Miró's garden, the „Labyrinth” through an abrupt and narrow opening in a rubble wall. Here, strange beasts – the „Solar Bird”, the „Lunar Bird”, the „Goddess”, the „Lizard” – intermingle with trees and plants on different terraced levels. Some grow directly out of the soil, others stand in water, some spout or gush water, others crawl up stone-walls. They peep over the terrace parapets, stare down from the walls, glare around corners, hide in nooks and crannies. These are not simply Miró sculptures in a garden or landscape; they are the inhabitants of a Miró world. In the Labyrinth, like in his paintings, Miró develops his notion of fields of space in which objects merge with the background instead of the traditional figure/ground relationship. As one sits on one of the stone benches in the Labyrinth, surrounded by a kind of Baudelairean world of strange

and familiar symbols, a surprising feature common to all these gargoyles, beasts, and creatures appears: silence and immobility. It is this feature which is central to Miró, who himself said: „Immobility strikes me. This bottle, this glass, a big stone on a deserted beach – these are motionless things, but they set loose great movements in my mind... Immobility makes me think of great spaces in which movements takes place which do not stop at a given moment, movements which have no end.”

So, just as the spaces and the light in Braque's rooms matches his work, and the Giacometti terrace matches its Giacometti sculptures, so the Miró Labyrinth embodies Miró's concept of space. The architectural and/or landscaped surrounding extends the vision of the work of art, and thereby complements and completes it. These spaces are not just designed with abstract space in mind, but with specific spatial and experiential qualities so that a variety of spaces is created.

But not only does the architecture extend the specificity of the works of art, it also develops the specificity of the site. After initial designs, full-scale mock-ups of the buildings were erected and moved around the site for one whole year. In this way, the many different levels and views on site are developed both inside and outside. Courtyards, terraces and gardens link the interiors to the exteriors. Sert also used regionally-produced and locally-found materials. Sert had planned to use exposed concrete, but when he realized how many stones were available on site in the ground and from old ruined buildings and terrace-walls, and when he discovered a local factory producing hand-made wood-baked bricks, he decided to incorporate these materials.

During the building period, discussions were taking place between Sert and Miró, Braque, Calder, and Chagall, about special commissions for the Foundation as well as the lighting and exhibition conditions inside. Building started on September 5th 1960. Even then, discussions continued: when architect and artists met on site, new discussions and ideas would develop even when the buildings were beginning to be laid out. Full-size replicas of Miró's statues



The Giacometti Terrace. Photo: Jan Birksted

were placed in site on the unfinished terraces to make sure that their proper place in terms of scale and in terms of their relationship to each other and to the architecture, had been found.

In keeping with this – and here I quote from Bastlund who worked with Sert at the time – „it was decided that utmost use would be made of the sloping site. The garden extensions would be part of the museum itself. The artists represented in the Galerie Maeght would contribute pieces especially designed for the gardens, courts and interiors. The plan of the Maeght Foundation would rather resemble that of a small village, and volumes would be many and differentiated. The outside spaces around the buildings would be well defined so as to be used as extra exhibition rooms or patios.“ We can see how not just the process of building but the design process itself took place on site as opposed to the abstract flat surface of the drawing board.

The result of this site-specificity and this programme-specificity is that the usual ba-

sic opposition between unified interior space and unified exterior space is replaced by a variety of spaces along an inside/outside continuum: some interior spaces are external in character; some exterior spaces are internal in character. The very notions of „external space“ and of „internal space“ become not a description of where they are, but a description of their spatial quality. The notions of „internal“ and of „external“ become qualities adaptable to either interior or exterior spaces. In this way, the surrounding gardens, courtyards, groves and terraces, and the different views towards the landscape, form with the exhibition rooms a complex and graded system of spaces encompassing internal interior spaces, external interior spaces, internal exterior spaces and external exterior spaces.

Let me summarise. At *the Fondation Maeght* the architecture and the gardens and the distant landscape are subsumed into an overall unified design based on (1) site specificity, (2) a complex and systematic structure of spatial contrasts and (3) a multiplicity of spatial qualities – the

Braque rooms, the Miró garden, the Giacometti terrace – such that the basic opposition between inside and outside is replaced by graded variations of internal and external experiences.

These spatial experiences are the very opposite of any notion of universalist space. *The Fondation Maeght* – through its site-specificity and its programme-specificity and its model incorporating landscape and based on collaboration – proposes an alternative to the abstract universality of High Modernism. *The Maeght Foundation* stands as a challenge to any High Modernist ideal of universality.

This model of a fusion between architecture, landscape and art is one to which other art foundations of the 1960s also aspire, such as the Gulbenkian Foundation in Lisbon and Louisiana in Denmark. And this raises the issue of whether these particular art foundations could be said to offer a new architectural typology. All these cases throw a challenge to the contemporary universalist „orthodoxy of neutrality“ which rules museum design today.

Landscapes of Modernity in Europe and America

1. The word landscape has several related but distinct meanings corresponding to distinct phases in the evolution of the spatial consciousness of its users. The 1923 edition of the *Royal English Dictionary* gives the following definition: "...the part of a country that can be seen from one place at one time; a picture of part of a country." In 1993, the *Petit Larousse illustré* more or less confirms it. The conclusion of this short exercise that could be repeated in most European languages seems clearly to point to a common understanding: A landscape is: a) an exterior space that is looked at, and b) a representation of that space.

From this common usage, geographers have derived a more complex and complete scientific notion. They added to the "gaze" a more precise analytical dimension and an interpretation of the given space as configured historically by the action of nature and/or man.

All this concerns us in more ways than one. Historically, architecture has been associated to landscape both as space and representation. The former interacts (technically, aesthetically, etc.) with the building and the way it is perceived. The latter provides it with tools for design and dissemination: history and theory feed on representations of architectural landscapes (which may include some poisoning).

Every architectural culture develops landscapes: real or represented; realized, projected or simply imagined or dreamt. The Modern Movement generated its own. They can be experienced in the renderings, sketches and, above all, in the new and significant uses it made of photography. But, I would like to propose, furthermore, that it has, or at least, some of its members have introduced into architecture a new "geographer's view" of the landscape.

2. The Modern Movement definitively (or so it believed) rejected the antique and its imitation as a fundamental determinant of the architectural project, installing in their place function and technology on one hand; on the other, it adopted in its dealings with the space surrounding the building an attitude of respectful detachment and contrast. Both orientations were related to what I call the geographer's view. This, by the way, implies no rejection of history, but rather its integration into a more complete space-time analysis of the "site" of architecture.

Landscape is a modern idea. Since the Age of Enlightenment, it has been associated with all the manifestations of modernity in science, painting, politics, literature and more. Whatever the object of his quest, the modern individual is more inclined to look for it in the spectacle offered to his senses than in traditions. To name but two founding figures of the modern view of architecture, both Viollet-le-Duc and Ruskin were passionate and quasi-scientific observers of landscapes, natural or man-made. Landscape, from Turner to Cézanne was the main laboratory of pictorial modernity. Is it not then reasonable to propose that the authority of landscape, both in its romantic guise as direct, concrete, authentic experience of nature and in the rationalized version of natural sciences did actually displace, at least for some modern architects, the authority of the architectural past as foundation of their practices and theories? On the eve of the Modern Movement, Adolf Loos (*Architektur*, 1910) brings architecture before the tribunal of Alpine landscape and finds it guilty of non-culture, and Frank Lloyd Wright builds a whole theory of organic architecture based upon a morphological analysis of the regional landscape of the Prairie.

3. Moreover, the Modern Movement actually created a new landscape in the design of buildings and the planning of cities. This landscape has been often questioned, and not always without justification. I will not attempt to settle this matter here, but merely recall briefly the roots of the new landscape the Movement strove to create. One such root is to be found in the English tradition of the garden with its corollary: picturesque architecture. The other, also first associated with the English garden but deeply modified in the course of the 19th century, is the tradition of urban reform illustrated by Haussmann's hygienist, social and political re-design of Paris, and the third is the American scale and territorial design.

The urban landscape projected by the CIAM, for instance, appears as a combination of these three elements: on the one hand, it allows vast expanses of "nature" (actually well-groomed English garden type landscape) to flow through the entire space. Then, as is the case in rural settings, the "machines" required to satisfy human needs (buildings and various functional areas and networks) are distributed across it according to their own "unnatural" scale and geometry. In fact, the un-sentimental rural landscape of geography has been combined with the English aristocrat's park to produce a landscape for the modern metropolis.

This view of the urban landscape is, obviously, first and foremost that of Le Corbusier whose buildings, drawings and writings open a particularly wide door onto the geographer's view. Indeed, the teachings of his master L'Éplattenier and the following travels were intended to make him into a sort of natural geographer, in the tradition of John Ruskin. In 1907, after contemplating the Bay of Naples, he writes: (my translation) "*A picture always remain inferior and a landscape always superior to the idea one may conceive of it.*" But his own conception of the landscape will soon move far away from Ruskin's. The ones he prefers are immense, open sun-drenched vistas which his sketches reduce to a few lines in search of the bare bones (relief, light, colors). In 1929, '35 and '36 his sea and air travels to the Americas will result in enthusiastic pages

on the immense and monotonous landscapes of Argentina, Uruguay and Brasil. To him, landscapes had become, as much as technics "*l'assiette même du lyrisme*".

4. As we know, the American experience of Le Corbusier was not without precedents. As I recalled earlier, the landscapes of America, whether real or represented, provided essential elements to the Modern Movement's projects.

Founded as extensions of Europe, the colonies of America were confronted with a problem of cultural identity when they undertook to break away from their European mother countries. Nature and landscape had always been central issues in the conquest of their immense empires and in the survival of their settlements. But they did not think of this nature as specific, much less so as inhabited and trans-

formed by native cultures. Now, in true Enlightenment fashion, this free and virgin nature became the perfect setting for the republican utopia. Instead of loyalty to the crown or to a common history, language and culture, the legitimacy and identity of "America" was going to be founded upon Nature and Reason.

In the United States of America this foundation did not remain an abstract concept. It was given a concrete form through the 1785 Land Ordinance which is, by far, the most grandiose and ruthless piece of landscape design ever executed. Indeed, it applied a rectangular grid to vast areas of the country and created a landscape which can be described in terms (simple, standardized, functional, orthogonal) which will sound familiar to any student of the Modern Movement. The mind behind this grand scheme, as we

know, was that of the architect-president Thomas Jefferson, a man whose architectural and planning activities were closely related with the political construction of the nation's identity.

The political and aesthetic legacy of Jefferson were transmitted to the Modern Movement through the landscape of Chicago and the Prairie, and through the architecture of Frank Lloyd Wright. But at the same time, Wright himself was exploring the landscapes of his country beyond the heroic generalizations of the Frontier. This, understandably, escaped the European avant-gardes who adopted his forms as a model for their modern identity. With less justification, it also escaped the attention of the American "International Style" propagandists who cast him in the decorous role of the ancestor but chose to ignore his search for modern American regional identities. But this is another story...

TECHNOLOGY



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Towards a Worldwide Network

The building technology of the Modern Movement is a part of a continuing technological development. It can not be regarded separately from the past, the present, nor a future technology. Moreover, Modern Movement technology must be considered in connection to both general architectural as well as social and cultural developments.

It is therefore important to gather information on the history of building technology of the 20th Century, and the present performance, treatment and maintenance of the constructions it produced. Knowledge on the mutual benefit of the encounter of the new technology and the Modern Movement could serve the proper maintenance of this architecture today and, at the same time, provide a source for new developments in architecture and contemporary technology.

To this end, the DOCOMOMO International Specialist Committee on Technology (ISC/T) has initiated the production of a database of expertise on Modern Movement technology. Such expertise is regarded by the ISC/T as both historical knowledge, studied mainly through written sources, and hands-on experience with its preservation, restoration and maintenance.

Inquiry

Data continue to be collected through an international inquiry. The inquiry is aimed at specialist institutions and practising professionals, including architects, material scientists, historians, conservators, specialist contractors and so on.

The inquiry form contains sections on personal data and the name and nature of the project concerned. This could be a research program on a specific topic, but just as well an actual restoration case that generated specific knowledge from practice.

The last section of the inquiry gathers data on an eventual printed evaluation or report of the project, in order to obtain references in professional literature. It seems increasingly important that such written evaluations contain a summary in English, in order to make wider access possible.

Nature of expertise

An important section of the inquiry is dedicated to the nature of the expertise, which is defined by answering three multiple-choice questions.

The first deals with the subject, which could be:

- materials (concrete, glass blocks),
- constructions (building parts, such as windows),
- systems (composed of building parts, such as facades, heating system),
- methodology (e.g. industrialization, standardization).

The answer to this question defines the scope of the expertise.

The second deals with the aim of the project, which could be:

- historic documentation (what was there?),
- consolidation/conservation (how to save what is left),
- restoration/reconstruction (how to get back what got lost),
- maintenance/management (how to keep it for the future).

The answer to this question tells us to what extent the expertise could be of help in solving certain specific problems.

The third question deals with the way the project is actually carried out, which could be:

- desk-top research, making use of written sources, models etc.,
- laboratory research, mainly scientific analyses, tests and so on,
- hands-on experience, through field testing, experimental applications or actual restoration cases,

- developing operational applications, for instance ready-to-use products developed by construction companies.

The response to this question indicates the level of operability.

Together, the answers to these three questions provide a rather comprehensive idea of the nature of the knowledge of the expert concerned.

Analysis

The inquiry has been distributed amongst all the national working parties, through which a number of individual specialists have been reached. This has resulted in 40 completed files, from 11 different countries. Of these, 36 are from Europe (Bulgaria, Denmark, Finland, Germany, Italy, Sweden, Switzerland, the Netherlands and the United Kingdom), whereas only four as yet are from non-European countries (Brazil and the USA).

From an analysis it could be concluded that according to the inquiry results:

4.1 The projects are mainly dealing with: 72.5% specific materials (concrete, steel, plaster), 67.5% constructions (composed materials: building parts such as window frames etc.), 30% systems (facades, foundations, heating etc.), 17.5% construction methodology (industrialization, crafts versus industry, mechanization etc.).

Of the participants, 62.5% indicated they were involved with various subjects, while 32.5% tackled only one subject, and 5% did not answer the question.

4.2 The project objectives are indicated as: 75% historic documentation (what was there?), 39% consolidation and conservation (how to save what is left), 45% restoration and reconstruction (how to get back what got lost), 55% maintenance and managing (how to keep it for the future). All participants answered this question. 62.5% tackled more than one option, one third only one.

4.3. The way the project is being carried out is: 85% desktop (archive, literature, models etc.), 20% laboratory (analysis, tests etc.), 37.5% hands on experience

(field tests, experimental applications, case studies etc.), 30% operational for field use (ready-to-use technical solutions). 47.5% indicated more than one option, while 32.5% tackled only one. Everybody answered the question.

The analysis of the inquiry shows that significant research on Modern Movement technology is being done, both as theoretical studies and through actual conservation, restoration and maintenance.

Even if the study of the Modern Movement and its technology is still a relatively young subject, more than half of the inquiry forms indicate references to as many as 39 publications.

The amount of the reported work currently in progress is 52.5% and this seems to indicate that a lot of work on technology is being done and will be published in the near future.

Furthermore, there are indications that a lot of expertise that relates to the technology of the Modern Movement still has not been reached by the inquiry: the database includes projects from only 11 working parties out of a total 36.

It is therefore the hope of the ISC/T that these hidden sources of expertise will soon contribute to the database and become a part of a growing network of experts on Modern Movement technology.

Database

This first printed result of the inquiry constitutes an initial and still modest database of specific expertise on Modern Movement technology. It will hopefully result in a worldwide network of experts in this specialized field in the course of some time, to be available through Internet.

The database is like an index that can be entered through studies of references and publications, either by further contacts with the ISC/T, or by direct contact with the registered expert concerned.

It can therefore be used to get specific information on a concrete subject (through the index by key word on the last two

pages), but also to establish contacts between researchers and/or professionals. The information gathered will serve four levels of activity:

- a. A general source of information for those involved in conservation of 20th-century structures.
- b. An assessment of the range of research being carried out, which will provide useful reference points for further projects and identify gaps in the current knowledge.
- c. Provide an international list of contributors and contact addresses to encourage cross-fertilisation of information and ideas related to the conservation of modern buildings.
- d. Provide a reference work to the objectives of the architects and engineers of the Modern Movement who sought to establish a rigorous examination of the principles of modern design, to arrive at a better understanding of the past for the future.

Research fields

An aim of the project is to identify gaps in the available knowledge on MaMo technology and preservation. This should provide information to stimulate researchers to initiate surveys on certain topics. We also hope it will advance international cooperation or at least coordination of research projects.

Analysis of the database shows that research should be stimulated in the following fields:

- systems; most projects concentrate on materials and buildings parts, while only a few deal with a more comprehensive analysis of systems as a whole; especially in the field of facade renovations it seems vital that such knowledge is stimulated; also, the knowledge on early climitization systems is still extremely poor;

- the issue of methodology is a more theoretical one that deals with the impact of construction methods on architecture; this is a field that we feel is still insufficiently explored; it is however necessary to get a better understanding about the relation between construction and architectural expression;
- as regards the aim of the projects, most are concentrating on documentation rather than strategies for conservation and repair; if we want to safeguard the heritage of the Modern Movement, we will have to develop more adequate methods for conservation;
- in terms of operability we can see that it is necessary to concentrate more on hands-on expertise and operational repair methods;
- as far as specific topics are concerned, it seems there is a considerable gap in knowledge on glass, both in terms of conservation of salvage glazing and of replacement glazing.

The ISC/T would welcome cooperation with the ISC/Education to see if the identified knowledge gaps could be covered in training programmes for MaMo preservation.

Future developments

The database is an open-ended system that will continue to grow by linking up with other similar sources and by continuing to encourage DOCOMOMO working parties and individual experts to participate in a creative process for which this database is intended to provide a basis.

It is our intention to have the database, too, accessible through Internet soon.

The expectation of the ISC/T is that the database will become an aid for practising professionals as well as for research on Modern Movement technology, both in order to maintain existing buildings and to advance a continuing development of technological knowledge.

ISC/Technology

Inquiry on Technological Expertise; january 1996

1. SUBJECT (5 words maximum):

.....

.....

2. Personal data of contact person

2.1 Summare, title, first name:

2.2 Affiliation, institute, practice:

2.3 Professional address, street, number:

2.4 Postal code, city:

2.5 P.O.Box, postal code (if available):

2.6 Country:

2.7 Telephone/Fax:

2.8 Private address (optional):

2.9 Private Tel./Fax (optional):

- 2.10 Member of:
- DOCOMOMO International
 - DOCOMOMO Working party of (country/region)
 - ISC/Technology
 - Other relevant memberships:

3. Technological Expertise

3.1 Name of the project:

English translation:

3.2 Brief description of the research or specific restoration expertise (max. 25 words):

.....

.....

3.3 Names and roles of those involved in the project:

.....

3.4 Is the project related to:

- National research program:
- International research program:
- TICCH
- CIB W70
- Others:

turn to reverse

ISC/Technology

Inquiry on Technological Expertise; january 1996

4. Nature of expertise

4.1 Is the expertise mainly on (please indicate):

- Materials,
- Construction (building parts; composition of materials),
- Systems (e.g. facade, heating, foudation),
- Construction methodology (e.g. industrialization, craft industry, labour intensive or mechanized construction),

4.2 What is the main issue of the project:

- Historic documentation (What was there?)
- Consolidation/ Conservation (How to save what is left?)
- Restoration/ Reconstruction (How to get back what got lost?)
- Maintenance/ Managing (How to keep it for the future?)

4.3 Does the project mainly involve:

- Desktop research (archive, literature, models, etc.)
- Laboratory research (analysis, tests, etc.)
- Hands-on experience (field tests, experimental applications, cases, etc.)
- Operational applications for field use (ready-to-use technical solutions)

5. Progress

5.1 What is the status of the project:

- Proposal
- In progress
- Being reported/ evaluated, result expected by 19
- Report/ evaluation available

6. Progress (if available)

Please send copy if possible.

6.1 Title of report/ evaluation:

6.2 Brief English translation of title:

6.3 Year, publisher, city:

6.4 Language (summary in other language?):

7. Publications (if available)

Please list some selected publications, resulting from or explaining the project, and only if relevant in an international context. Give the name of the article, autor, publication, year and language.

1.
2.
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Concrete and California Modernism

From 1910 to 1930, a series of important architects strove to develop a modern architecture for Southern California. They had an important connection: Frank Lloyd Wright and Chicago.

Irving Gill, Wright and his son, Lloyd Wright, Rudolph Schindler and Richard Neutra came to Los Angeles from the center of innovation in American design and construction and saw in the rapidly growing Southern California region a series of fascinating challenges: inventing an architectural language appropriate to the area's complex history and demographics; developing construction methods for an area naturally devoid of lumber; and housing the middle class which greatly dominated the swelling population.

For all these architects, except Neutra, the material of choice for their work was concrete. And in each case, again with the exception of Neutra, the new modern language they sought was deliberately referential and historicist. Because unlike Europe, where the convulsions of the early 20th century cried out for a break from the past and its attendant social and economic ills, the Americans coming to the largely unpopulated west sought connections to the past and reminders of home. For the architects, historical precedents (Mayan, Japanese, Pueblo, Spanish) became the justification for the rightness of their particular stylistic choices. (Neutra, because he

arrived in California after World War I, and because of his own temperament and vision, brought a purer, more clearly European modernism with him. And he also arrived without the affection for thick-walled buildings of the desert southwest which the other architects held.)

Irving Gill, who had worked with Wright at Louis Sullivan's office in Chicago, arrived first. From 1910 on, he experimented with various forms of concrete construction, including tilt-slab and poured-in-place technologies, marrying a cubist vocabulary and modernist vision of domesticity and society to the traditional forms of the Spanish Missions. His most important buildings include the Banning and Dodge houses, La Jolla Women's Club, civic buildings for Torrance and Oceanside, and Horatio Court Apartments.

Lloyd Wright, who had been trained as a landscape architect, came to California to work on the 1915 Panamanian Exposition in San Diego. Although another team got the project, Wright stayed, and worked for Irving Gill. On his own he did two expressionistic concrete homes in 1922 for the Bollman brothers. When his father started work on Hollyhock House, he became project architect, briefly, and then helped develop the textile-block system, which he used himself throughout the 1920s, both on his own home and studio, and on a series of homes in the Hollywood hills which married the technology to the house type of the Mexican Rancho. In 1923, he designed the Oasis Hotel in Palm Springs in a lift-form technique, using an expressionistic Art-Deco style.

Frank Lloyd Wright came to Los Angeles to work on Hollyhock House and 13 other projects for Aline Barnsdall in 1918, although he did not move his office to Los Angeles until 1922, when he finished work on the Imperial Hotel. Although, due to client concerns, Hollyhock House is not concrete (despite the claims of Hitchcock in *In the Nature of Materials*), He began working on the Textile-Block system in 1921, and built four concrete block hous-

es which again married cubism to history, in this case the architecture of the Maya. The system, besides seeking justification in the climate and history of the region, also was Wright's second major attempt to address what he would write was the greatest challenge of the American architect: housing the middle class. The Textile-block technology was actually intended to be a do-it-yourself kit system. It would take 25 years before Wright found clients who actually did build his block homes themselves.

Rudolph Schindler came to the United States to work for Wright, and was brought to California to work on Hollyhock House. His own home, designed in 1921-22, was innovative both socially and technologically. It was a double house with a shared kitchen, and rooms identified by inhabitant, not use. The other family which shared the dwelling was Clyde and Marion Chace. Clyde Chace was an engineer working with Irving Gill on the Horatio Court Apartments. The construction system for the home involved pouring concrete wall on a slab, tilting them into place, and completing the volume with redwood ceilings and walls with panels of canvas, glass and celotex. Schindler went on to use the tilt-form system on Pueblo Ribera, an important apartment complex in San Diego, and poured-in-place concrete on the renowned Lovell Beach House.

Today, these early modernist works in concrete are suffering from a combination of flaws in construction and materials, exposure to acid rain, earthquake and other environmental stresses, and poor maintenance. The Schindler-Chace Double House, and Wright's Millard, Freeman, Ennis and Storer houses have either recently undergone, or are currently undergoing, significant restorations. The paper will examine the ideas behind the design of all the concrete buildings mentioned above, the difficulties encountered, in constructing and inhabiting them, and, specifically, the technological and theoretical problems encountered in restoring one: The Freeman House by Frank Lloyd Wright.

Folk Roots in MoMo's Technical Innovations: a Case Study

Communications in the late 19th Century and the first two decades of the 20th Century were to be instrumental for the early development of the novel European architectural ideas on an international scale.

South America was not foreign to this situation, due to the ever-growing links set up by the steamship companies and the net of submarine cables that drew this part of the world ever closer to the cultural centers of change after the World War I.

New ideas in book or magazine form, and sometimes hand in hand with the authors – who now dared to travel to “far away places” – helped local intellectuals to set up restructured cultural frames of

thought and principles that would draw new guidelines for architecture in Latin America.

Yet MoMo's claimed universal challenge was to be re-elaborated by local circumstances: geography, climate, vegetation and, last but not least, building traditions and inherited identities.

Argentina – as the case of Mexico and Brazil can also show – points to different approaches having to do with deep-rooted national identities with the past. These, mainly in the form of a folk architecture, were to play a significant role in the field of architectural design.

The vastness of the Pampas could only be conquered by man with technology and

architecture, and the Estancia – our counterpart of the Ranch (USA) or the Station (Australia) – is a document of a pragmatic approach relating to rural building as well as a response to the climatic-geographic-construction requirements.

Armando Williams, having been asked to conceive a proposal for three hospitals for the province of Corrientes (North Argentina) – a sunken grass savannah studded with interconnected lakes, marshes (esteros) and rivers, and with significant rainfall and hot climate, etc. – drew his ideas from the region's long-time folk solutions which he merged with MoMo principles and the local technical experience in reinforced concrete of the day.

Sergio Poretti,
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The Debate on "Autarchy" and the Heterogeneity of Italian Architecture

Modern architecture in Italy develops individual characteristics quite different from those of the International Style represented by the Modern Movement. Historically, this heterogeneous version of modernity was motivated by the conditions imposed on architecture by fascism and was considered an incomplete and imperfect modernity in comparison to the European examples. Instead, in light of current research, this architecture should be viewed as an individual product and should be analyzed in relationship to the particular historical conditions from which it emerged, without a biased identification with the regressive fascist culture and the quality of the artistic production of that time.

According to this theory, autarchy assumes an important role in determining the originality of modern architecture. It is indeed because of that phenomenon that in Italy the shift from traditional to modern construction follows an individual development.

In order to reconstruct fully this development it is not sufficient to consider only the phase of autarchy that began in 1936 with the economic sanctions imposed on Italy after the invasion of Ethiopia, but it is necessary to go further back, to 1926, when the system of autarchy is presented as the foundation of corporative economics. In

fact, two distinctive phases of autarchy can be identified: first, a more flexible tendency towards economic self-sufficiency, and later, the more severe policy of wartime autarchy. However, both phases, in different ways but just as deeply, influenced the individual characteristics of modern Italian construction.

By controlling technology, autarchy contributed also in determining the heterogeneity of modern Italian architecture. But in what ways? And in particular what were the repercussions (of the position of autarchy) on the first version of modernity outlined between 1931 and 1934? And what was the influence on architecture of the more severe policy of the second half of the 1930s?

Corporativism and the debate on new materials (1926 – 1934)

The policy of autarchy is innate to the corporative strategy that begins in 1926-27 with the revaluation of the lire to "quota 90", and replaces the first brief liberal phase of the fascist economy. The strong intervention of the State in the economy, justified by the "supreme interest in the defense of the country", is a result of the aim to expand the internal market and eliminate imports (substitute imports with Italian products) and implies the direct and continuous control of technological developments. In order to activate this plan, the building sector – whose management assumed a strategic role – must be transformed into a corporative system. And thus, first the Federations, which united similar industries and availed of their own technical organs were instituted, followed by the obligatory Consortium of producers and merchants, both subject to government control, and finally, in 1934 corporations were formed, uniting under the aegis of a product the representation of all the categories of workers. The transformation of the building sector occurs at the crucial moment in which, within the grand program of public works launched between 1931 and 1934 to address the economic crisis and while the clash between modernists and traditionalist initially favors the former, the last step is taken in the passage from traditional to modern construction. The corporative structure is formed in the very moment that the first model of modern

technology in Italy is defined. Therefore, it is inevitable that the position of autarchy should play a decisive role in that development.

In the first place, autarchy is at the basis of the choice of reinforced concrete and consequently of the totalitarian and absolute character of that choice. Referring to the studies promoted by the Federations of concrete, lime and plaster and the Consortium of concrete manufacturers, the economic convenience of reinforced concrete for buildings with fewer than 20 stories is generally accepted. Thus, the exclusion of the steel structure is almost universal despite the efforts of the National Fascist Federation of the Iron Industrialists and the vivid support of several representatives of modern architecture, with Giuseppe Pagano in the forefront.

Furthermore, the choice for autarchy inspires the relaunching of the Italian marble industry. In 1928 the State – with the aim of compensating the drastic reduction of foreign demand caused by autarchy itself – intervenes directly in favor of the modernization of the system of production, imposing the formation of a Consortium and launching measures intended to increase internal consumption, such as prescribing the use of marble facing on public works. Finally, autarchy influenced the process of complete renewal and the great expansion of the repertory of intermediate building products between 1928 and 1932 following the process of industrialization of the sector and in response to the need for light and insulating materials imposed by the widespread use of the independent skeleton structure.

An initial debate is kindled within the technical sector, the architectural environment and spreads to the entire public consciousness regarding the new materials and their national character. No other subject inspires the nationalistic spirit to such an extent as does autarchy. In 1931, the *Ambrosiano* publishes a discussion of the new materials stimulated by the sophisticated Milanese engineer Carlo Emilio Gadda, who illustrates the characteristics of light and very light metals and then at the request of Arnaldo Mussolini identifies aluminium as a native Italian product and promotes its use. At the same time, exploiting the strong stimulus given to the glass

industry in 1928 with its industrialization, publicity is given to the many types of new Italian glass put on the market, inventing new uses: glass block, thermal glass (such as Termolux), safety glass (such as Vis-Securit), and glass for wall facing (such as Desagmat domino, Fontanit, Opalina and Vetrosmalt).

Equally important was the advertising campaign for the numerous new industrial products for light walls and facings, made with Italian primary materials, such as Eternit, Eraclit, Masonite, Populit, Spugnocemento, litoceramica, linoleum, bakelite, artificial marbles such as Lincustra, and "special" plasters such as Terranova and Silexine.

This first debate belongs to the vast propaganda operation which imprints the seal of Italian origin on industrial products not unlike those of international modern technology (Anticoroda, Ferrofinestra, Terranova plaster), thus emphasising a presumed native origin that often is not borne out by the production process, such as glass and concrete, whose manufacture requires in large part imported primary materials.

Autarchy and Modernity

What are the consequences on modern Italian architecture of the early 1930s of the debate on materials promoted by autarchy?

Despite its strong propaganda character, the choice of autarchy during this period, in particular regarding the debate on architecture, develops a fundamental role in the definition of those unique elements that distinguish modern Italian architecture from international examples.

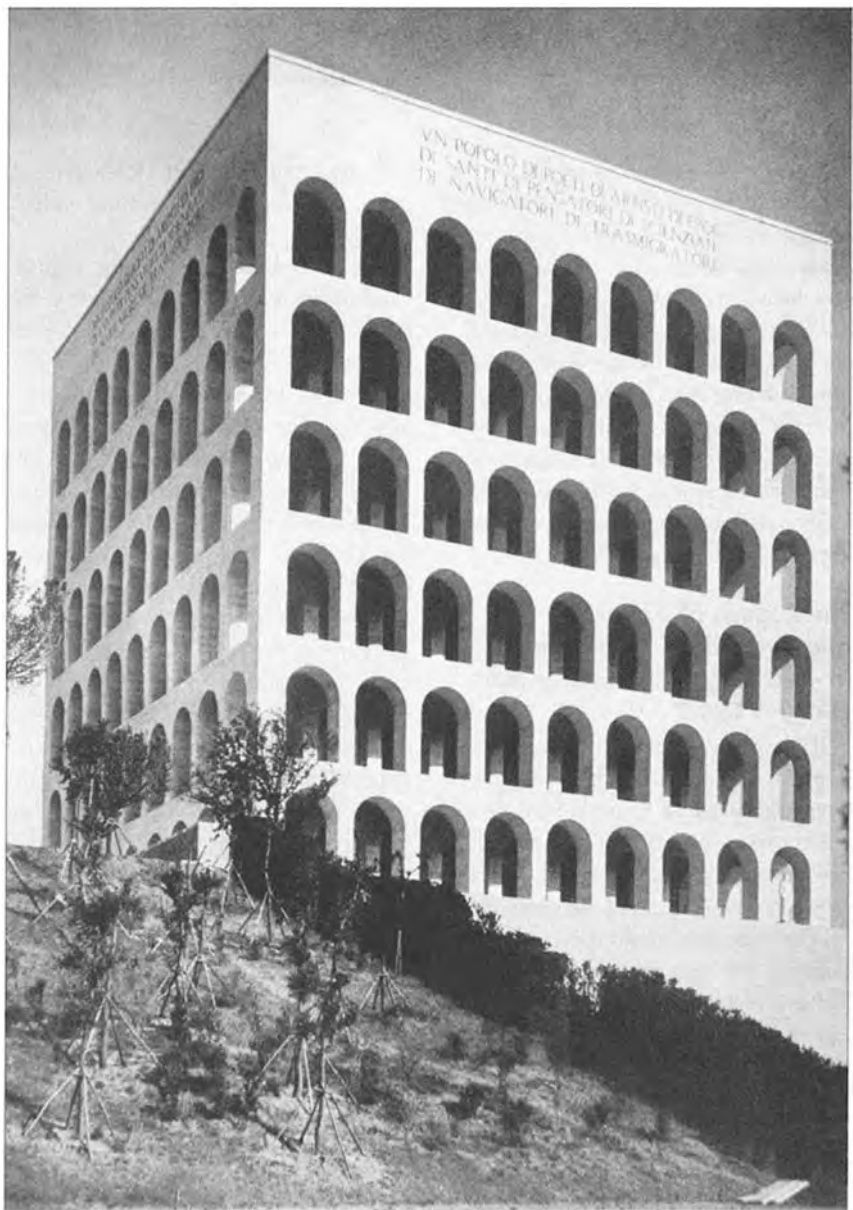
In the first place autarchy, favoring the combination of reinforced concrete and marbles, influences the types of wall. In modern Italian architecture, reinforced concrete is used in a unique way, not as a framed structure independent of the walls, but as an actual trabeated wall system. Consequently, the modern aspect is not determined by creative uses of volumes, by projections or by freedom in the choice of plan as in the international models, but by new architectural rhythms, the thinning and lightening of the traditional walls. The system of pilasters in the final version of the facade of the Palazzo Postale (Post Office) in Naples by Giuseppe Vaccaro, the perforated surfaces in "pietracimento" of the

Palazzo Postale (Post Office) in Rome by Adalberto Libera and the graceful loggia on the main facade of the Casa del Fascio (Fascist Headquarters) in Como by Giuseppe Terragni are the original elements of the heterogeneous Italian modernity.

In the second place autarchy affects the figurative aspects of Italian modernity. Contrary to the international style, where neutral plaster surfaces enhance the stereometric articulations rather than the organic form, based on the visible construction, in Italian architecture the expression is completely entrusted to the wall facings and to figurative effects created by the various combinations of new and traditional mate-

rials. This results in different color tonalities in the combination of Vallestrona, diorite and large windows realized by Vaccaro, the juxtaposition of slabs and blocks of travertine violaceo di Predazzo and glass grating in the building by Libera, and in the contrast between glass blocks, Botticino marble and oak in the masterpiece by Terragni.

The facades of the Palazzo Montecatini in Milan by Gio Ponti reveal that the wall structure and the figurative elements of Italian architecture can be related in large part to autarchy and to the corporative economy. The two elements that form the facades, the large slabs of Apuan cipolli-



Napoli, Palazzo Postale, G. Vaccaro, 1928-36



Milano, Palazzo Montecatini, G. Ponti, 1935-38

no marble – an exemplary solution to the problem of very thin facings on skeleton structure buildings – and the double windows in aluminium alloy, not only represent the union of traditional and industrial autarchy, but are the symbolic products of the State industry. In fact, the Montecatini firm took over the Carrara marble quarries after the bankruptcy of the Consortium instituted to reorganize production and distribution, and was also the owner of the factory in Porto Marghera that produced elements in aluminium alloy.

The Regime of Autarchy and the debate on the price in gold of Construction Systems (1935 – 1942)

The invasion of Ethiopia and the resulting sanctions imposed on Italy by the League of Nations, marked the transition from the so-called virtual autarchy of the preceding decade to an authentic régime of autarchy. Mussolini himself outlined the program in his *Piano regolatore della nuova economia italiana nel prossimo tempo fascista* [Scheme of the new Italian economy in the next stage of fascism], presented during his speech to the national assembly of corporations on the morning of March 23rd, 1936. This marks the beginning of a more severe autarchy, motivated by reasons of war.

The debate shifts its focus from the use of materials – the Federations promise to

limit imports from abroad – to the price in gold (or its foreign equivalent) of various systems of construction.

The official position of the régime, which maintains a constant interest in the debate, foresees limiting the use of steel as a structural system. On the basis of this position, the elimination of the steel structure becomes definitive (a circumstance which however does not prevent the undaunted Pagano and others to continue its use until the outbreak of the war) and because of the steel present in reinforced concrete, its use is again put into question.

Between 1936 and 1939, the comparison between the price in gold of the wall system in reinforced concrete and the traditional wall structure dominates the entire architectural and technical debate. As an indicator of the interest that autarchy inspires in Italy, the debate spreads widely in July 1938 when *the Giornale d'Italia* publishes a succinct exchange of opinions among Marcello Piacentini, who favors the increase in the use of stone, promoting its industrialization, of Gio Ponti, who applauds the period of experimentation promoted by autarchy, and Pier Luigi Nervi, who urges a scientific evaluation, without prejudice, of the price in gold of the various systems of construction. And indeed, in the meantime the debate becomes more focused and prompts detailed technical and economic analyses of the various

construction procedures. Thanks to the concrete manufacturers, who were looking out for their own interests, the amount of steel in reinforced concrete is proven to be negligible both in its overall cost as in comparison to the amount used in the non-structural building elements. On the other hand, the price in gold of materials promoted by the autarchy, such as brick and mortar, is quite high when all the primary materials necessary for their production are considered. However, the efforts to diminish the price in gold of reinforced concrete is useless: the increased need of the war industry makes the economizing of steel necessary. Thus the strategy of autarchy proceeds with increasingly severe limitations in the use of reinforced concrete. This is followed by prohibitions and limitations of possible waivers.

Furthermore, the wartime autarchy, decidedly more severe in its regulations than the preceding policy, is however just as inefficient in their enforcement and therefore despite the prohibition, reinforced concrete continues to be used widely, and a return to a traditional wall structure is limited to the few examples of public residential buildings.

At the same time, the demand to build without steel results in a widespread increase in experiments with concrete, reducing or eliminating the reinforcement or substituting it with materials accepted by autarchy. On the one hand, the aim to conserve steel stimulates the refining of the theory of reinforced concrete, the evolution of the regulations, and the perfecting and control of its production; on the other hand, it prompts numerous experiments that revive the pioneering beginnings of reinforced concrete. In several cases, such as the Marchino floor, the static quality based on the arch effect allows for the reduction of steel by two-thirds. In other cases, such as the Miozzi floor, the steel is eliminated and the stress is absorbed by the layer of denticulated bricks arranged diagonally on the underside of the floor structure. In yet other more frequent instances, steel is substituted with materials promoted by autarchy, for example, weak alloys, wood, strips or tubes of asbestos concrete, or slate elements. And an attempt is made at the suggestion of the colonist and engineer Alessandro Paolini after detailed studies

and experiments to reinforced the concrete with bamboo rods.

Experimentation is one of the involuntary positive effects of autarchy and leads with alternate results to progress in the technology of reinforced concrete, and which will provide the foundation for more advanced research by Italian structural engineers after the war.

Architecture of Autarchy

What are the effects of autarchy on modern Italian architecture of the second half of the 1930s?

In the historiography, the architectural production of this period was indiscriminately given a negative interpretation as the result of a regression towards forms and models of construction of the past.

In fact, this severe phase of autarchy is underlined by a recovery of traditionalism in architectural theory and the ensuing building programs show evidence of an artificial and ideological return to traditional forms.

An interpretation based in particular on the consequences of autarchy cannot but confirm this theory. It is true that the bans on the use of reinforced concrete are for the most part eluded, but it is also true that the campaign for a construction without steel provokes a total transformation of the

modern technology perfected during the first phase of autarchy. The tendency to consider reinforced concrete as an internal element to the wall structure is emphasized. Projections are avoided, reduced floor spans are preferred, solids over voids in the walls are favored, and Piacentini's recommendation for a more frequent and rational use of Italian stones is heeded, in particular his maxim *santa faticosa intelligente italianissima manodopera* [holy labored intelligent Italian craftsmanship] (stone-cutters, masons, mosaic workers,

painters, wood-carvers, cabinet-makers of pure local origin).

Various types of architecture derive from this tendency to bring attention to the types of wall structure. A certain rural influence is seen in public residential construction. The "littorial style", the 20th-century version of historical eclecticism, has a new outburst in the attempts to reintegrate the areas surrounding the demolished city centers. And a more ostentatious monumentalism, intended to conceal the decline in number and to provide a primarily rhetorical quality, is used for the second generation of public works for the régime. However, despite this process of overall regression, there are numerous "exceptions". And it is in these "exceptions" that one finds the more successful examples of original Italian modernity. This does not include the well-known European programs, where architects such as Daneri, Cosenza or Baldessari were able to avoid the conditions of the régime. On the contrary, very Italian works, such as the Tubercolosario (Sanatorium) by Gardella, the Casa Malaparte (Malaparte House) and the Palazzo dei Congressi (Convention Center) by Libera, the Danteum by Terragni and Cattaneo, mirror the cultural climate of autarchy and at the same time remain completely free from the stereotyped or pretentious character of the current architecture of autarchy. The more distinctive characteristics of Italian modernity are found in these exceptions. Types of wall construction are at the basis of the imagery, which indeed become the subject of a veritable representation in which the abstract figures that evoke the classical and mediterranean tradition reflect the official political policy in a purely metaphysical realm, beyond history.

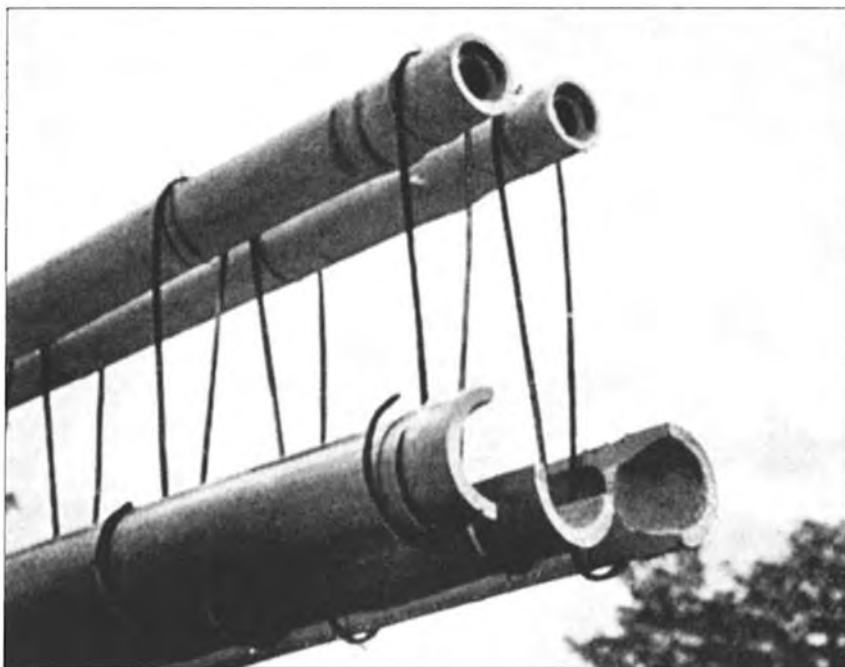
Perhaps the Palazzo della Civiltà is the clearest example. More than in the final version, which is the result of the intervention of Piacentini, this is obvious in the original plan where the arch, archetype of the heavy bearing wall system, assumes in its repetition the indefinite abstraction of the grid, the symbol of the stretcher of reinforced concrete.

The Monumental Arch

It is impossible to synthesize the changing influence of the various policies of autarchy



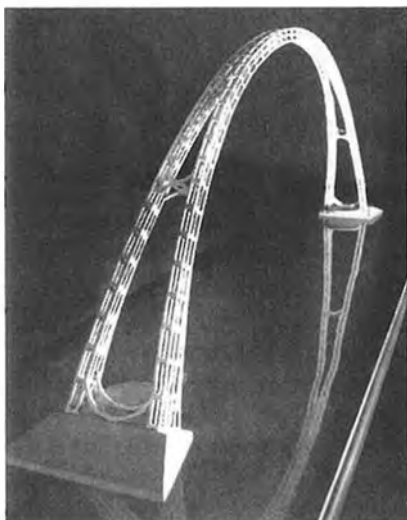
Framework with bamboo rods in a concrete beam, 1939



Palazzo della Civiltà, E. La Padula, G. Guerrini, M. Romano, EUR 1937-40

on the heterogeneous and diverse Italian modernity. However, the monumental arch planned for EUR represents a literal metaphor. In this arch the ideals of autarchy would find their most spectacular symbol. The vicissitudes which resulted in the rejection of the first proposal of 1937 reflect the unreal, purely propaganda nature of autarchy.

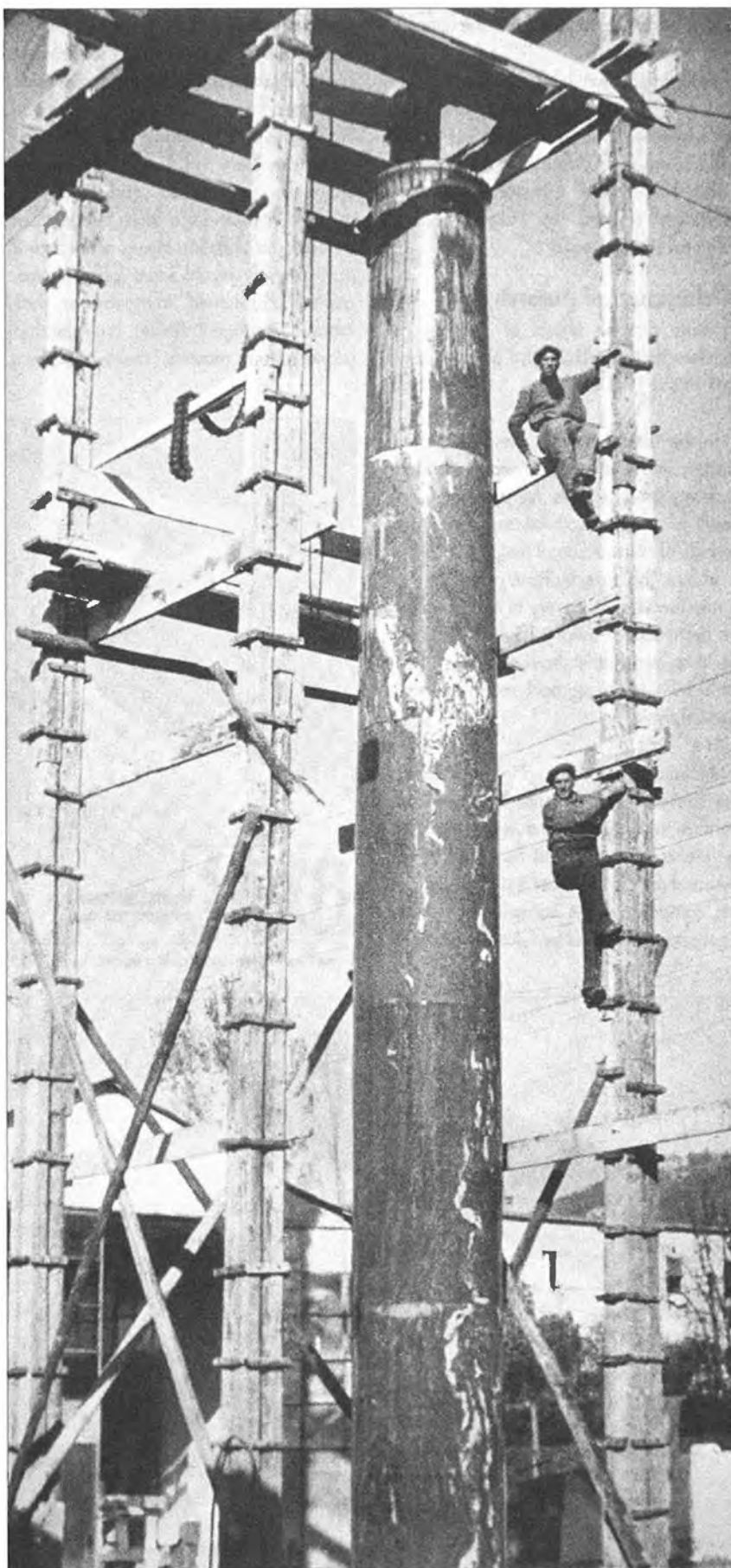
In March 1938 Libera and Di Bernardino drew up the plans for a structure in reinforced concrete with a 200-meter span. In order to realize the plan, Nervi devised a system of cut stones in non-reinforced concrete. Arturo Danusso ascertained its stability, the Ferrobeton company carried out the geognostic investigations. The following year the plans, although they called for a minimum quantity of steel, were re-



A building site at the EUR, 1937

jected in favor of a structure in aluminium with a span of 330 meters because, as Gaetano Minnucci explains, this "would represent the demonstration of absolute autarchy since aluminium is an entirely Italian metal." However, based on the aerodynamic tests and those done on the sample in Avional D, and on the advice of Aristide Giannelli, the prohibitive cost of the arch in exclusively native materials is determined and thus it is decided to insert steel elements. In the final plans, the arch is a structure not consistent with the policy of autarchy: steel faced in aluminium.

The paradox of a symbol of autarchy made with materials antithetical to their policy represents the contradictory character of autarchy itself. Its failed realization reflects its inability to succeed.



Model of the aluminium arch at the EUR, 1939

Wide-spanned Structures in the Modern Movement – Structural Optimization

The formal, functional and – last but not least – the economic principles and aims of the Modern Movement required the development of new technologies. This can be illustrated, for example, in two fields of architecture.

1. Steel constructions for housing projects and social buildings (1 – 4 levels) with very optimized filigran structures combined with concrete and brick, mainly finished in plaster on the facade (examples designed and built by Otto Haesler, Walter Gropius, Hans Poelzig and others). These steel struc-

tures (skeletal and framework) will be described in terms of material, joints, structural behaviour including stability, calculation methods, corrosion and so on. The research work in this field is a vital foundation for the repair and reconstruction of existing buildings.

2. Partly parallel with – and partly independent of – modern architecture, engineers and companies developed new construction and calculation methods for various materials such as steel concrete, pre-stressed concrete and timber. Especially for wide-

spanned structures architects of the Modern Movement integrated these new developments into their designs and competitions, partly in projects. Structures such as shells, tents, three-dimensional grids, steel glass shells, hanging buildings and roofs were built by architects such as Gropius, Corbusier, Rasch, Wachsmann and others, and by engineers such as Dischinger, Freyssinet, Zollinger, Schuchow and others.

In this aspect it is interesting to discuss whether there is a modern movement in structural engineering, too.

Technical Responses to Typical Conservation Problems or Architecture in England After the War – Current Research and Case Studies from English Heritage

English Heritage is the organisation responsible for the preservation of ancient monuments, historic buildings, conservation areas, historic gardens and for archaeology in England on behalf of the government. In addition to managing our estate, which includes some 400 properties, English Heritage is responsible for the protection of the country's heritage through the listing and the legislative process, the provision of grants for repairs (worth some \$63 US million per annum) and for a wide range of activities concerned with the care and conservation of 20th-century heritage. This includes: technical advice, research, training, and the production of guidelines.

Our current work involves protection of some 600 buildings built between the Wars and 150 buildings built after the War, listed on the register of the national estate, and we are currently preparing additional listing proposals for buildings built after the War. The listing of architecture

Table 1. Reconciling authenticity with repair: philosophical difficulties for modern buildings.

PHILOSOPHICAL/ PHYSICAL PROBLEM	CAUSE OF CONFLICT
Material Failure	* use of new materials with unproven performance records * use of new materials without knowledge of best practice methods for use * use of traditional materials in new ways, or in combination with new materials * poor workmanship and quality control (new materials chosen for reasons of economy)
Detailing Failure	* lack of knowledge for best methods of detailing new materials to ensure long term survival * adaptation of traditional materials to new detailing to achieve aesthetic
Outmoded Production	* rapid development of materials and equally rapid supersession of materials * use of environmentally unfriendly materials now banned * lack of salvage industry yet established for modern buildings
Maintenance Failure	* naivety regarding maintenance requirements for new materials and building systems * failure to implement maintenance recommendations
Patina of Age	* comparative accelerated aging of modern architecture * short term performance of modern materials * unrecognised nostalgia for aging modern buildings * material problems for deteriorating modern buildings
Design and Functionalism	* adaptation for new spatial and planning requirements (open plan and glazing expanses) * upgrading for modern environmental performance requirements (energy conservation) * health and safety requirements
Life Span	* "throwaway architecture" – intentionally designed for short lifespan * poor technical performance of materials and systems * economic viability * conservation versus recording
The Unknown	* lack of experience * lack of knowledge of modern materials and their performance over time * lack of knowledge of repair systems in the longer term * undeveloped repair methods to meet conservation aims * availability of resources (salvage) * presence of the original architect (wish to restore and improve)

built after the War has introduced a huge number of new technical issues and materials into the conservation repertoire which need to be dealt with if we are to fulfill our role as principal advisors to the government on heritage issues.

Of all of the tremendous number of new materials and building systems introduced over the past century, reinforced concrete is by far the most dominant material, and as a result is causing the most urgent, the most common, and the largest-scale problems in conservation terms. Previous conferences have covered the repair of typically rendered concrete buildings built between the wars. There are now reasonably well established principles and methods for coping with their repair, although perhaps not adequately dealing with the question of material authenticity, but that is another story. It is now the exponents of modernism built after the War which are causing more

difficult problems, and which will be discussed here.

The difficulties of achieving the Venice Charter's aim of handing down our cultural heritage to future generations in "the full richness of their authenticity" for MoMo architecture has been discussed at various conferences and gatherings ever since DOCOMOMO's inauguration. (1) We are all familiar with the characteristics of modern architecture which make achieving authenticity problematic, as summarised in the following table. This paper concentrates on the specific difficulties of resolving the material versus aesthetic authenticity, or to put it another way, preserving or prolonging the life of the building at the expense of the original fabric and/or design integrity for those concrete buildings of the era after the War.

Many of the exemplars of modernism after the war in Britain followed Le Corbusier's lead at the Unité d'Habitation, where fair

faced concrete became a fundamental part of the language of modernism. Le Corbusier's "*beton brut*" emphasised the material qualities of concrete, its rawness and roughness which imparts an organic quality, in a manner completely different to the careful crafting of the Modern Movement rendered concrete buildings.

Despite the austerity of the era after the War the welfare state in Britain offered opportunities for official or public architecture to realize many of modern architecture's aims. Adopting industrial production on a huge scale, the new architecture was able to fulfill the reconstruction programme after the War, and successfully provided larger housing projects, new towns, schools, hospitals and public amenities. In England after the War, modernism did not really begin to exert itself until the early 1950s with the Festival of Britain in 1951 as its launch pad. Fair faced concrete was accepted as the logical material to achieve moder-

Table 2. Conservation solutions for reinforced concrete building typologies

ARCHITECTURAL TYPE	PERIOD	PHILOSOPHICAL PRIORITY	CONSERVATION SOLUTION
A Concrete frame/traditional cladding	before the war between the war after the war	aesthetic integrity	restoration
B Concrete frame/traditional infill (exposed)	before the war between the war after the war	material = aesthetic	preservation and repair
C Concrete frame/traditional infill or block work (rendered)	between the war	aesthetic	restoration*
D Concrete frame/concrete infill (exposed)	before the war between the war after the war	material = aesthetic	preservation and repair
E Concrete frame/concrete infill (rendered or painted)	between the war	aesthetic	restoration
F Monolithic concrete (rendered or painted)	between the war	aesthetic	restoration*
G Monolithic concrete (exposed)	before the war	material = aesthetic	preservation and repair
H Monolithic concrete/precast	between the war	material = aesthetic	preservation and repair
I Frame/precast	after the war	material = aesthetic	preservation and repair

* With particular attention to surface finish features such as texture

nism's aims. Economy was the principal catalyst, although the early material failures of the rendered buildings of the Modern Movement had been recognised by the mid-1930s as being problematic, particularly in the damp English climate. After the War concrete coped with the shortages of timber and steel, and the dearth of skilled labour, facilitated the speed of construction and utilised raw materials which were locally available in unlimited supply. The so-called New Brutalists consolidated the importance of the honest expression of materials, and concrete became the undisputed material of this period.

By the mid-1950s the use of precast and monolithic concrete in combination was increasingly popular. Despite the interest in precast work, in Britain the two-man weight limit on lifting equipment restricted the use of large scale prefabricated components until the 1960s. This meant that in-situ concrete continued to be used extensively, either to provide the entire building as at the National Theatre, by Denys Lasdun, of 1965 or with other materials such as brick, steel, glass, and stone cladding. In addition the association of precast concrete with the temporary housing of the immediate period after the War, had established it as a low status material, a perception which took some time to shift.

This emphasis on the honest expression of the concrete is today the crux of the problem in terms of material authenticity for modern buildings built after the War. Where the structure of the building is expressed and the concrete surface provides not only the conceptual and structural intention but also the detail, material authenticity and aesthetic authenticity are inseparable. The following table is an attempt to categorise reinforced concrete construction, and pinpoint areas of philosophical difficulty encountered during conservation. It relates to the range of reinforced concrete buildings in Britain since 1900.

In order to better explain these problems two case studies are presented which we are currently involved with, but for which we have not yet achieved wholly satisfactory answers.

Alexander Fleming House was built between 1959 and 1966 to the designs of Ernő Goldfinger. Built for the Department of Health, it is a complex of 5 buildings south of the river in central London, in a some-

what hostile environment. Goldfinger, who was originally from Budapest, arrived in London in 1934 from Paris where he spent time in the atelier of Auguste Perret.

The building, which has been under consideration for listing for many years, is one of Goldfinger's most important. It employs a Miesian curtain wall with a carefully articulated exterior frame, governed by a grid based on the Golden Section. The coherence and discipline of the buildings with the careful recession and projection of different members of the frame is accentuated by the high-quality bush hammered concrete frame, with ground floor granite cladding, and the thick plate glass of the entrance foyers. The present owners are proposing refurbishment to apartments, which has already gained approval by English Heritage. The planning and structure of the building lends itself well to reorganisation, with minimal intervention to the structure or visual impact. The repairs to the external fabric are, however, more problematic.

In Britain the use of concrete in the period after the War suffered from financial pressures in terms of material and construction costs. Cement content was reduced, the depth of cover specified by the official recommendations was well below what we know today to be good practice, and the speed of construction and often poor workmanship have all contributed to what are the typical problems of concrete buildings from this period. Porous concrete with minimal cover to reinforcement does not perform well in the long term, and the technical problems are difficult enough, without adding the requirements of conservation into the equation. Here the exposed concrete frame exhibits many of these problems typical of its era, leaving it vulnerable to carbonation resulting in extensive latent and patent damage. The proposals adopt the standard approach for concrete repair, that is cutting out around spalled areas of concrete and areas where carbonation has progressed to a level to put the reinforcement at risk of corrosion, then cleaning down and repair of the reinforcement followed by patch repairs and the application of an opaque anti-carbonation elastomeric coating to protect the building from continued and inevitable deterioration. Arguments for the opaque coating were that it would cover the patch repairs and "lift" the ap-

pearance of the building, and that it was necessary technically. This visual uplift by painting was of concern to us, constituting the loss of original surface finish, and also introducing a long term maintenance commitment, which in our experience are not always honoured.

The concrete frame to first floor level is clad in granite. This means that for the most part the concrete surface is exposed from first floor level only. In addition the band of precast exposed aggregate gutter units around the first floor of the building further articulates the different forms of material expression. We required that the repairs acknowledge, and as far as possible attempt to conserve these differences. The precast gutter units require only minimal patch repairs. Exposed aggregate finish is also easier to camouflage in patch repairs and the role of a covering vehicle could not be justified by the low levels of patent damage, therefore a clear coating could be used to allay the future deterioration.

In this particular case, the patching of the concrete frame was so extensive, and the porosity of the concrete so variable, that it would be very difficult to insist on "invisible" patch repairs and the application of a clear protective coating, given that there was every likelihood that they would not be able to achieve visually satisfactory results, and the developer was concerned it would look like a patchwork quilt. The somewhat unsatisfactory compromise that has been agreed is that the opaque coating will be approved to the main frame, and is to match the original concrete colour as closely as possible. The coating does manage to maintain the texture to some degree, but leaves a plasticity finish. Politically this project is something of a hot potato, and it was not the case that experimentation was possible. The situation is not ideal but the loss of aesthetic authenticity by obscuring the original finish has had to be balanced against the long term survival of the building. Until the building is listed it was difficult to exercise a more conservative line, and the danger of not reaching an amicable compromise was that the building would be left in its present state of obsolescence and accelerating decay.

In other cases we are able to take a firmer line. The University of Sussex, designed by Basil Spence from 1960 uses

insitu and precast board marked concrete in combination with red brick to provide a rich expressive language, clearly influenced by Le Corbusier's *Maison Jaoul*. A number of buildings have already been repaired, following a traditional concrete repair approach as at Alexander Fleming House. The Meeting House, was repaired a few years ago now. The result is most unsatisfactory, as the contrast of the board marked concrete building which sat between its large brick and concrete neighbours has been lost and the building is now a cream painted one which has no meaning in the context of the original architect's intentions. The technical problems are, like Alexander Fleming House, typical of the era.

At present the repairs to Falmer House, which is listed Grade I, and therefore subject to the most stringent conservation controls, are under consideration. The approach is the same method employed for the Meeting House. In our opinion the University has not yet shown conclusively that other repair options have been investigated thoroughly enough. There are other options for repair which can provide less intrusive options and may be appropriate here. Cathodic protection, where the reinforcement is continuous, and the wiring can be located in joints or features, has great potential, and may not even require a coating. Realkalisation offers the opportunity to reverse the carbonation process and is relatively non-destructive. The new corrosion inhibitors potentially offer the most optimistic conservation solution for fair faced concrete buildings. These colourless, odourless coatings claim to penetrate the depth of the concrete and reinstate a passivating layer to the reinforcement steel.

Where concrete has already spalled there is no alternative but to patch repair. Much of the reluctance to provide visual matches for concrete is that since the early 1980s in Britain concrete repair has been based on proprietary bagged mixes. Matching aggregates and finishes is difficult and requires more care. In today's world, where the difficulties of obtaining good workmanship are often acute, and with the reliance on proprietary guaranteed repair systems, contractors are reluctant to adopt such an approach. Although this is not the case in traditional building

conservation. However, in some instances it is possible, with care and attention, to achieve suitable patch repairs. There will always be some obvious signs of a patch repair, after heavy rain for instance (an important factor in the UK). Is it so terrible to have some signs of weathering and age on a building? Perhaps it is the fact we are not yet used to a patina for recent buildings which causes the reluctance to attempt such an approach.

The obvious area of development in concrete repair so that material authenticity can be assured is in developing suitable methods of patch repairs, and in coatings. In addition, the failure to approach technical repairs as a part of a design problem can often be much of the difficulty.

There are many examples which could be used to indicate the importance of an individual and design-led approach, based on a clear understanding of the architectural intention, a willingness to think laterally, and to challenge existing approaches.

Another important area of research for us at English Heritage is the conservation of mosaic clad concrete. The use of mosaic as a cladding for concrete was increasingly prevalent from the 1950s, both in England and internationally, as a way of providing a weatherproof monolithic skin to concrete. Buildings such as the Liverpool Cathedral and the Chagall Monument in Chicago are now suffering from loss of original fabric and there are no viable means of repairing the existing skin.

Triggered by the problems with the mosaic cladding at the Metropolitan Cathedral of Christ the King, Liverpool, English Heritage initiated a programme of research into the repair of mosaic clad concrete. The research attempts to understand the architectural use of mosaic, determine the application methods used and investigate why and how it deteriorates, and lastly attempt to identify suitable economic and practical methods of repair. This work is nearing completion and will be published shortly, but at this stage we have not been able to identify any tremendously positive methods of ensuring such claddings survival. (2)

Conclusions

The extent we intervene to conserve a structure is dependent on, firstly, the

measure of decay and how the decay is likely to continue, the future role of the building, and the finance and knowledge available to carry out the intervention. Generally we subscribe to the idea that the less intervention the better for the structure. However, when dealing with modern buildings and their particular material problems which have a limited life span without intervention, we may need to reconsider. Increased understanding of the many technical issues and the development of economically viable repair techniques will clarify some of the controversial philosophical issues that have been discussed on many previous occasions. The fact we have not yet challenged standard building practice to approach repairs in a way which accommodates conservation aims is an important factor. Arguments concerning authenticity will subside as less intrusive repair methods are developed, and the acceptance that loss of material authenticity may, in some instances, be necessary.

Unlike other forms of material degradation, concrete and other modern materials do not yet have developed, universally accepted methodologies for their investigation, or for approaching repair. All too often the repairs are based on a cursory investigation, often done as a free quote, and with little information supplied as to the nature or even the extent of the repair work. Concrete repair is a specialist activity. Specialist contractors are usually aligned to, or holders of, licenses for the various repair methods available, such as desalination, realkalisation, and cathodic protection. Their patch repairs or traditional repair method virtually always uses a proprietary bagged product, bought off the shelf, with various standard requirements of use which form part of a guaranteed system.

Such an approach – that is, one which uses a standard repair method – is a misnomer in conservation terms. We rarely use standard off-the-peg products in conservation work and argue that every building must be assessed on its own specific problems, and the response will be an individual one. This ensures the specific causes of the problem are addressed, which ensures the most economical approach in the long term.

All too often there is a poor analysis of the problem which does not identify the

cause of the decay, and the action addresses the symptom and not the cause. This can often lead to inadequate repairs, and is unlikely to have recognised the qualities of the building which need to be conserved. There are various causes of concrete deterioration and to determine the most appropriate treatment for the requirements of each case there are a number of issues which need to be covered in the investigative process. The methodology is the same for carrying out any other historic buildings investigation and includes broadly:

1. Selection of an appropriate consultant

A concrete specialist should really be independent, which ensures there is not a conflict of interest between conservation aims and choosing the best repair method or system for the job. It is not considered appropriate for representatives from companies which manufacture and market insecticides to inspect and specify the repairs to a timber building (although this unfortunately does occur), why should this be acceptable for a concrete building? This said, there are a few companies which offer a complete range of repair systems which may under certain circumstances be suitable to consider as consultants during the investigative stages, just as sometimes the specialist conservator/ contractor may be brought in to assist with other areas of work.

2. Information gathering (historical)

It will be important to determine changes to the concrete, its environment and its functions over its history. Most importantly, changes in chloride levels, levels of carbonation and any changes in its chemical and physical characteristics will be useful in understanding patterns of deterioration.

3. Physical inspection and examination

A thorough physical investigation will be required to quantify the physical damage to the concrete. Mapping of defects such as spalling, delamination, cracking, depth of friable surface layers and other defects will offer information about the nature and extent of the problem. An experienced consultant can determine much from the

patterns of damage – reinforcement corrosion, alkali silica reaction, structural damage etc. Such a survey will also assist in building up costs for rehabilitation.

4. Diagnostic investigation

In order to determine the cause of the problem and the nature of the materials' resistance to decay non-destructive and sometimes destructive testing will need to be carried out. The types of tests which may be required are likely to include:

- * estimate of compressive strength (core or dust samples)
- * chloride ion concentration levels and profiling of these (core samples)
- * depth of cover to steel reinforcement (calibrated cover metre survey)
- * depth of carbonation (simple on site chemical test)
- * petrographic examination of core samples for visual inspection and determination of freeze thaw and alkali silica reaction

5. Interpretation of results

The importance of the experienced consultant in interpreting these results is paramount. Tests should obviously be implemented in a manner which causes least disruption to the fabric. Core samples should be agreed with the Architect.

6. Selection of repair strategy

As with any conservation project there will be a number of different repair options available, each with advantages and disadvantages, and the choice will be determined by the results of the investigation works, the severity of the deterioration, the risk of future deterioration, required life expectancy, practicality of applying the repair option, aesthetics and suitability to a listed building and finally, but almost always most importantly, cost. A useful exercise is to list all the repair alternatives – from no action to the most long-term solution – and then set these against their respective anticipated service lives and the advantages and disadvantages of each option. This summary proves the best means of focussing attention on the short- and long-term aims of the works against current resources.

As yet there is little written information specifically dealing with the technical problems of modern buildings. We need to push

forward technical barriers which limit what is achievable in conservation terms and to enable the aims of minimum intervention and retention of authenticity to be realised. We need to appeal to industry to work with us to achieve these aims and develop financially viable solutions if we are going to secure the future of many of our important buildings.

The establishment of knowledge networks such as the DOCOMOMO Database is already underway and will enable us to learn from each other. We need to carry out further research into the history of modern architecture, develop our understanding of the materials and their deterioration mechanisms and experiment with repair methods.

Lastly, we must accept the adage that conservation is a process not a finite act. If we are confronted with a problem which appears insurmountable today, it must be remembered that a solution may be found in the future; thus, where possible, the principal of reversibility should be attempted.

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NOTES

1 The International Charter for the Conservation and Restoration of Monuments and Sites. (The Venice Charter) Venice. 1964

2 A paper of this research project will be published in the *English Heritage Research Transactions*, to appear later this year, and available from: English Heritage, Architectural Conservation, 429 Oxford Street, London, W1R 2HD.

The Use of the Brise-Soleil in Brazilian Modern Architecture

The brise-soleil is an architectural element that was used intensely by the Brazilian Modern Movement. Its aim was regulating sunlight at the same time that it allowed a soft ventilation into the building, very appropriate in tropical climates. The name, which means something like *sun-block*, was given by Le Corbusier. It was first proposed in the year of 1929, as vertical blades disposed horizontally. In 1930, in the north, a prominent young architect called Luis Nunes and his team developed the application of a hollowed pre-fabricated block of cement on a secondary external wall, with identical function as that of the brise-soleil, although much more inexpensive and accessible for low-income construction. The name given to this element was *combogó*.

The purpose of its use had a well-defined functional background which found a decisive motive for its dissemination while incorporating formally a new aesthetic proposition coherent with the architecture principles elaborated at the beginning of the 20th Century. Here two main points can be observed. First, the lack of references of modern architectural faades at the time regarding especially hot and humid climates. The few examples then of brise-soleil elements were – only as drawings – by Le Corbusier in 1929 for the Ville

à Carthage and after that – more thoroughly developed – the plan of Urbanization for Algeria. In terms of the local context, the Modern Movement remained basically as a group of contestation to former colonial influences. Second, there was the problem of the nationalist affirmation; the “still-in-formation” character and value of the Brazilian culture; as this should be a profile yet to be created, there was no alternative other than the rationalistic posture as a reaction with which to forge the new face.

Both points make evident the need of an external aspect that should translate the change of position. Although it was very clear within the first organized manifestations of the new architecture that the finished building should simply make evident its constructive process, it was still a problem to advance this commitment without enabling the solution to the matters that motivated a new point of view: the changes of an emerging society, the construction of a modern society. The intense flux of immigrants fleeing from several European countries, the still very recent experience of slavery (about 30 years between its official end in 1889 and the week of Modern Art of São Paulo in 1922), the Republic, etc. There was the will for a new city, strongly defended by a reduced though influential group of people.

The formal solution of the brise-soleil and its various experiences with new materials (concrete, ceramic and even synthetic materials such as PVC) made it an extremely flexible idea and one enriched at every new application. Conceived not only as a single element, but as an ensemble which should be malleable enough to adapt itself, not only to variable spans but also to different architectural programs, from, for example, commercial buildings and hospitals to individual and ensemble housing. The brise-soleil and the *combogó* were soon widely used in all areas of architectural practice, and because of the low costs it achieved, it was easily applied to popular construction. Its great accessibility and convenience in terms of production and installation did not entail any loss of technical qualities, and it stimulated a very creative and intelligent use of the element, even in different ways on a same building, taking into consideration the dif-

ferent incidence of winds and sunlight throughout the year. This is exemplified in Rio de Janeiro by the MEC building by Niemeyer, Costa, Reidy, Leão and Moreira and the ABI of the Roberto Brothers.

The brise-soleil, however, was not something entirely new thing for Brazilian architecture. A very similar element had previously been very widespread in the country. This was the *muxarabi* (pronounced *musharabi*), which had been previously used by the Portuguese, generally in colonial housing called *sobrados*, as an Arab influence. They were built externally to balconies, covering all openings with fine thin wood, crossed over each other, forming different patterns.

It is interesting to note the changes made in this element and how they came about, how the new rationalistic principles reappropriated a relatively defunct colonial precedent of the brise-soleil, bearing in mind that the endeavour, as a whole, was that of leaving behind a past that represented submission. The former *muxarabi* had a very limited use. It was applied usually to residences and it allowed the entrance of soft ventilation and shadows. It was present mostly on big houses called *sobrados*, and restricted to families of position and wealth. The use of the *muxarabi* had a clear objective of social division, where the people (especially women) could observe the daily life of the street without being seen. At that time in Salvador, for example, only the slaves were supposed to walk on the streets; their owners would be always carried by them on those same streets.

The brise-soleil and its variation, the *combogó*, had the same characteristic of regulating the natural climatic resources – wind and sunlight – without obstructing the view to the outside from the inside of the building. We have, then, two fundamental changes: the technical and the cultural. Technically, the function is maintained and improved. The elements are conceived as separate modules as single blades or hollowed bricks that can be combined, regulated and even articulated to form bigger panels. Air voids and crossed ventilation are favoured by free plan projects, and new materials are researched in order to obtain lower weight, lower costs and ease of production.

The use of the brise-soleil produces an immediate visual impact. It follows the norms of the new architecture at the same time that it is able to form a new vocabulary in the city landscape. At first we have a very sober facade, as in the examples of the MEC and the ABI previously quoted. Subsequently, as the style of the Rio de Janeiro group is more keenly improved, the brise-soleil turns becomes an element subject to aesthetic exploration. In the Parque Guinle from 1948 (ensemble of apartment buildings project) by Lucio Costa, for example, *the combogó* and the blades are combined in panels that intercalate soft pinks, blues and greens. These elements also favor the use of the curve which will be later qualified as *the baroque modernism* of Niemeyer.

As an interface between exterior and interior, instead of being an element of separation, as *the muxabi* was, the brise-soleil worked as an element of transition. Especially in the case of tall institutional buildings, which would be expected to have an absolutely independent life from the streets, they were able to create an ambience of exchange without affecting their common use. And to this must be added the Brazilian attachment to street life – at least, that is, until the recent shopping centers and the urban violence. But that is a discussion for another time.

After the 1940s the brise-soleil was so excessively applied that many critics ques-

tioned whether the purpose of its use was not merely aesthetical; as its original functional objective had been left aside. In Brasilia in the late fifties the brise-soleil was no longer used by the architects that had turned it into a signature of Modern Brazilian Architecture. They preferred to place their bets on air-conditioning systems, and this, unfortunately, was a mistake.

The trajectory of the use of the brise-soleil in Brazilian Modern Architecture is very illustrative in the sense that it opens up the view of what functionality can mean. As long as the concept is alive in the designer's mind, the meaning is retained exactly in the possibility of the change of form.

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A National Material and Its International Trend

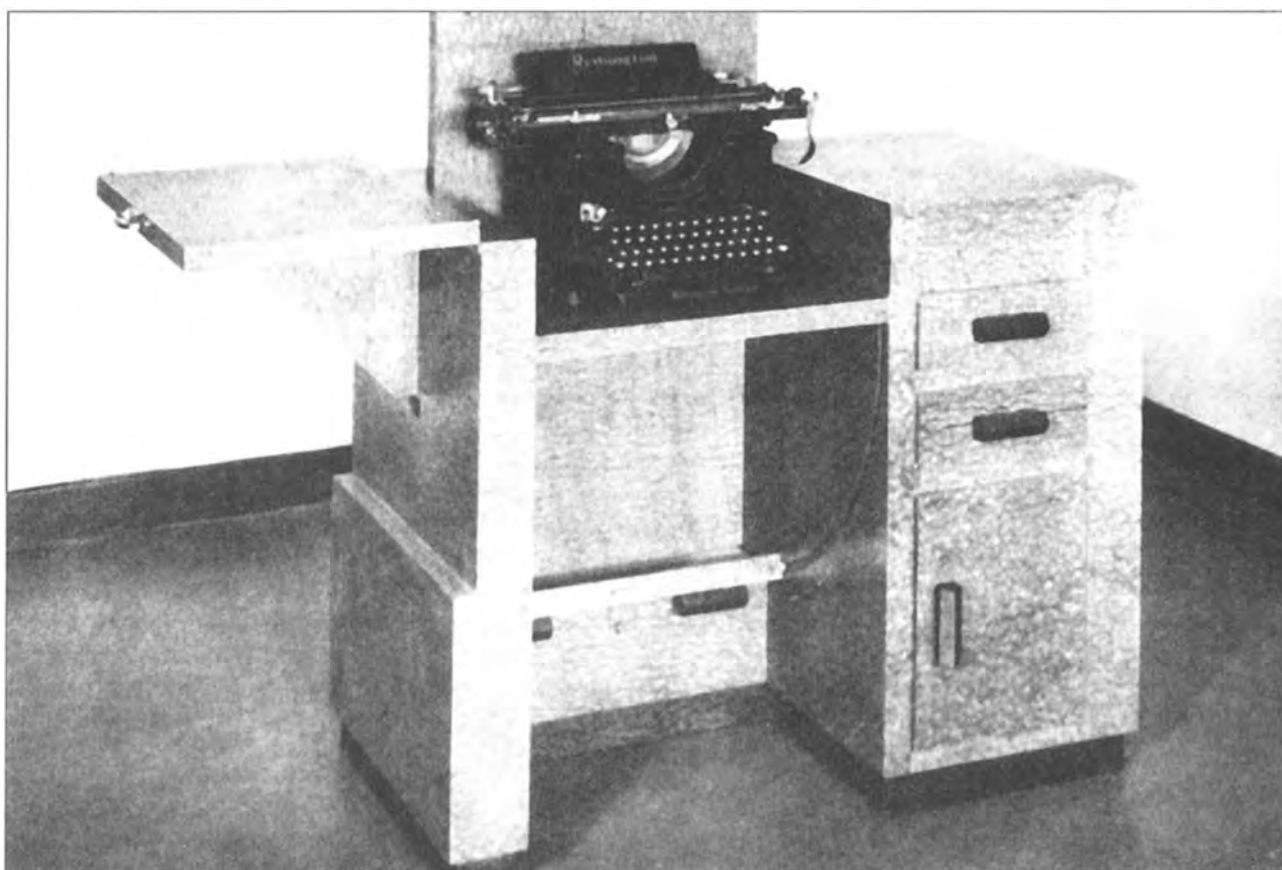
In Italian architectural culture of the 1920s and the 1930s Turin and Piedmont could boast of a peculiar and complex aspiration to internationalism, perceived notably in the many forms of cultural enno-

blement of the new industrial civilization's "international lifestyle". The elitist concept of the relationship between the intellectual "new" and the new reality of an industrial town is typical of the basic impulse taken by theoretical and practical intellectuals. In Piedmont the idea generally refused co-operation with State-inspired industrial protectionism and the technological autarchy upheld elsewhere by red-tape fascism and "consensus". Turin's culture was rather impermeable to the régime, both ideologically and politically, and maintained its intrinsic vocation of an intellectual aristocracy based on ancient traditions. It could thus intelligently and elegantly contribute to the various commercial new requirements of a "modern" middle-class lifestyle and start interesting experiments in the best of the modern international world, by proposing advanced theoretical elaborations, European solutions, attempts at mediating between rationalism and futurist myths, and new technological design needs.

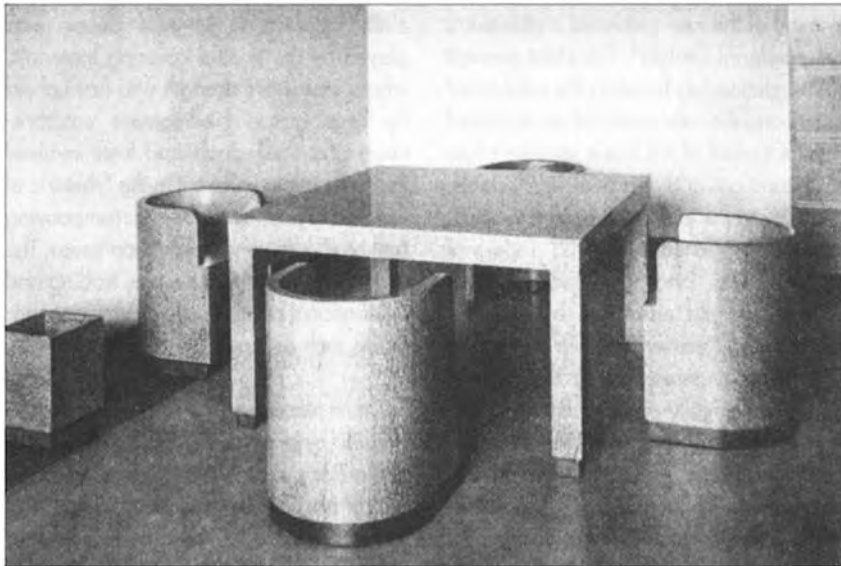
An important role in these experiments in the different fields of architecture, espe-

cially applied to internal décor, was played by the special covering materials, whose innovative strength was first upheld by avant-garde Piedmontese entrepreneurs and intellectuals and later involved the implications inherent in the "rhetoric of new materials" with their accompanying real production and application issues. The events accompanying the use, trading and international publicization of covering materials such as Buxus are a case in point.

The replacement material Buxus was a peculiar by-product of the Piedmontese paper industry, initially marked by the technological application features of its first "soft tan" version and offered as a versatile material for many different internal décor applications, mostly furniture. A wise advertising policy at several important events (such as the Victory Show for Emanuele Filiberto's 4th Centenary held in Turin in 1928, and the 1929 International Exhibition of Decorative and Industrial Art held in Monza in 1930), its presence in avant-garde furnishings (such as Palazzo Gualino and G. Pagano's S.I.S.T. School in Turin, the Jacobacci house in Turin and N. Diulgh-



Torino, Palazzo Gualino. Mobile speciale per la macchina da scrivere. Mobile in buxus, esecuzione F.I.P., G. Pagano, G. Levi Montalcini, 1930



Torino, Palazzo Gualino. Mobili in buxus per piccola saletta di adunanze, G. Pagano, G. Levi Montalcini, 1930

roff's Casa Tacconis in Milan) and commercial advertising in "Casabella" and "Domus" supported it for over twenty years. Its success was further stimulated by the warm welcome accorded the Buxus furniture designed for Palazzo Gualino by Gino Levi Montalcini and Giuseppe Pagano; Buxus was even too readily exalted, first as an autarchic material and later by the extraordinary interpretations proposed by Fortunato Depero's futuristic and artisan imagination.

These events were accompanied by two features connotating the material's success and consensus around the proposed applications of the various semirigid, thin and soft tan Buxus varieties. Namely, artisan or

semi-artisan production and the application techniques maintained until the years of its decline, despite repeated production process industrialization programmes by entrepreneurs on the one hand and proposed international marketing by far-seeing enterprises ready to exploit the favourable relations among art, artisanship and industry in applied arts and internal décor ever since the 1920s, on the other.

The universal use of Buxus as a covering material – as witnessed by the popularity of the diverse applications from trunks, suitcases, picture frames and lampshades to furniture and wall coverings, steam-liner furnishings, railway car coverings and automotive internal bodywork linings – was accompanied by rare hints of mysterious production derivation alchemies (despite registered patents) as well as the constantly mentioned need for skilled manual applications as a real and proper guarantee of effective expressive results. Much resistance to changing Buxus Production from artisan to industrial may perhaps have been somehow due to its popularity with a great number of artisan artists active in the Piedmontese and Lombard architectural culture. This created the ideal conditions for the new material poetry scenarios that Fortunato Depero started creating in the 1930s, derived from the typically artisan techniques of the tapestries and polychromatic wooden inlays of the Trento area's tradition.

The first real opportunity Buxus had to cross national borders was offered by the

recognitions awarded to the producer company at the 1929 International Exhibition of Barcelona. Though it won the acclaim of an architectural culture committed to building up an international lifestyle mostly in the Turin environment of the 1930s, with the Mid-European achievements of Pogatsching and Cuzzi from Trieste, Aloisio from Udine and the Bulgarian Djulgheroff.

The material became the object of a venture to enter the North American market in the immediate aftermath of World War II, in near-coincidence with the decline of its application and the progressively increasing range of chemical products offered as thin and pliable films. A partially unsuccessful attempt was made to export Buxus production and use to the USA at the end of the 1940s with the objectives of obtaining an "American patent". The real first actor of the venture was Fortunato Depero, who was responsible for this task during his second trip to America.

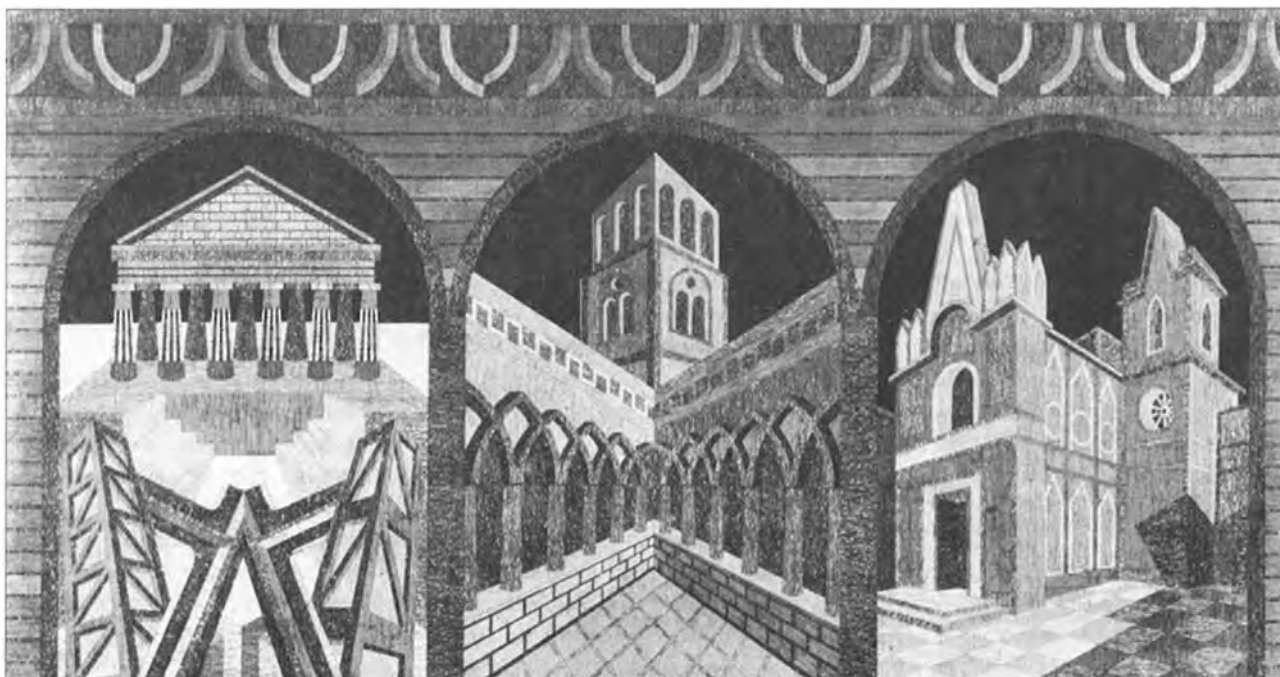
Production features

Buxus was produced starting in the second half of the 1920s by a solid papermaking company (a traditional Piedmontese industry), Società Anonima Cartiere Giacomo Bosso, already an advanced industrial complex producing special papers. Buxus is a man-made material obtained by chemical treatment of compressed cellulose material and was the outcome of Professor Niccolò Silvestrini's experiments during the first decade of the century on special chemical treatments of paper for the conservation of ancient documents, that Cartiere immediately supported. The first patents were registered at that time on this material which was associated with the special nature of "artificial leather".

Buxus was first produced in the "hard tan" variety suitable for several lining applications, internal décor particularly, and in the "soft tan" variety (called Buxus "Corium"), prevalently used by the leatherware industry. Three Buxus versions were available by the second half of the 1930s: 8 to 3 mm thick semirigid, thin and soft. In those same years, the Turin firm of E. Clava produced and marketed some semi-finished articles in Buxus, such as different thickness and colour "Buxus boards", used for linings, floorings, furnishings and finishings.



Torino, Scuola SIST. Applicazioni in buxus per l'arredo di un'aula. G. Pagano, 1934



Architetture, costumi e prodotti italiani. Pannello in buxus, F. Depero, d.p. 1942, propr. MART, Rovereto

Despite the original definition as an "industrial product" that Buxus was introduced under and the aspirations and proposals to transform into modern industrial processes the special production lines Cartiere Bosso used to cope with type diversification and increasing applications, the material was still de facto an artisan or semi-artisan product till the later 1950s, when production ceased.

Buxus and Architecture

Buxus first met architecture at the 1928 Turin Exhibition, where many possible ap-

plications of the material were on show. Its first official presentation at the Chemical Pavilion was a rhetorical *mise en scène* that expounded on its qualities of imitating marble surfaces and suitably to support style wall decorations. The greatest expressive potential of Buxus was recognisable at the Exhibition in some "utilitarian" applications presented by the Architect's House (notably the entrance hall and the wardrobe room) (1).

The design and construction of Palazzo Gualino. (2) (G. Pagano and G. Levi Mon-

talchini, 1928-1930) offered Buxus its great opportunity to claim the attention of the rationalistic architectural world. The emblems of crystal-clear, functional, simple and economic modernity were expressed with extreme clarity in the systematic application of Buxus, similarly to other innovative materials, in a furnishing that completed the building project organically. The experience of Palazzo Gualino furniture was a solid reference point for Buxus; it incidentally confirmed the possibility of using the material in small series production furniture, which led the producer company to reconvert to modern industrialization of its production facilities: mostly however, it meant separating it from its initial use as an imitation material and launched it as an independent one.

Buxus and the Decorative Arts

The use of Buxus developed in the years just after the 4th International Exhibition of Modern Decorative and Industrial Art at the Monza Villa Reale in 1930. (3) (In four halls of which several pieces of furniture in Buxus were on show, including some designed for Palazzo Gualino), also thanks to increasing interest by designers and artists such as Pagano, Paolucci, Chessa, Djulgheroff, Isotta and Vanini, for the internal décor of private dwellings especially.

A new period of success for the material used in decorative arts started when



Architetture, costumi e prodotti italiani. Pannello in buxus, F. Depero, d.p. 1942, propr. MART, Rovereto

Valentino Bosso met Depero in the later 1930s. Depero derived the new scenarios of Buxus poetry (4) from typically artisan tapestry and polychromatic wooden inlay techniques (also to support his personal profession of an "irrational" art to counter the false universality of rationalism). The meeting of Trento's artisan world, the recognized homeland of inlay and insetting art, personified by Depero, and "industry", represented by Cartiere Bosso, gave rise to a new but transient season for Buxus that lasted until the attempt also made by Depero in the aftermath of the World War to transfer Buxus production patents to North America.

This American adventure deeply marked by Depero's personality and his original proposals to apply the material in decorative arts confirmed Cartiere Bosso's aspirations to launch the product on the world market. This desire had already been obvious when production started and the manufacturer exhibited at the 1929 Barcelona Show looking for contacts and agreements with British and French companies for granting sole sales rights (5). In parallel with use of the "Corium" variety for leatherware, the world exporter firm of Altavilla, with company-owned factories in Turin and Paris, and some Paris chain stores prepared "special exhibits exclusively dedicated to Buxus and Corium manifact" (6). After World War II Cartiere Giacomo Bosso undertook the attempt to publicize the material in the USA to obtain an "American patent". Fortunato Depero's stay in New York of those years was the scenario of this adventure. Financially supported by the company, Depero started his trip in 1947 with an extensive sample set of Buxus articles and applications, made specially to make the material known. Cartiere Bosso failed to obtain patent registration for producing Buxus in the USA, despite the interest generated in many sectors of the American business community.

Before his return home, Depero completed some projects for opening artisan shops in the USA, organized for using the

material produced in Italy. These projects failed too, however, and Buxus was ultimately replaced by new plastic laminates in Italy as well.

Production towards Universal Use

Pagano presented Buxus in *"La Casa bella"* (7) as extremely versatile in colour yield, touch and processing ease; he particularly stressed its susceptibility to be printed, embossed, painted, polished, bent, veneered with special glues to wood, cardboard and metal, cut, riveted or screwed. Advertised by Cartiere Bosso as a good wear-resistant and electrical isolation, not flammable and heat resistant, waterproof and hygroscopic material, Buxus was suitable for diverse building and architectural applications, internal décor especially. The universal use of the soft tan version in book-binding and small objects beside leatherware went hand in hand with its peculiar features that made it paramount for use as imitation or substitute material. It was used to replace costlier materials in finishing steam-liners, railway carriages and automotive insides (FIAT and the Viberti bodywork factory of Turin, for instance). The "present and future applications" indicated by Cartiere Bosso and listed in the product's "General Description Report" feature special instances such as the manufacture of prefab partitions for the building industry, special constructions for aeronautics and shipbuilding, grease, oil and liquid wax containers, "silent gears" for producing windmill tubing that "require light weight combined with strength".

Buxus and Autarchy

When production began in the 1920s, Buxus already started to win the consensus granted "nationally-produced materials": its quality of "having been conceived and produced in Italy, of coming from Italian raw materials and of contributing to the development of purely Italian firms" was highlighted in particular (8). These features made it play the role of a typically "national" material in the climate of

autarchic constraints imposed in Italy during the later part of the 1930s. Buxus enjoyed a new and fortunate period of prosperity in those years and was publicized as a typically autarchic product, also thanks to the original interpretations presented by Depero at the Autarchic Exhibition of the Artisan Market of Florence and the Autarchy Exhibition of Turin in 1939.

These were the ways whereby Buxus entered that "local" history of symbolical investments made in special modern materials, thanks to which the new material was automatically identified with modernity, not just in architecture. The "Chant of matter", that had accompanied the new material's initial success, thus turned into the "Chant of Autarchy" (9).

NOTES

- 1 Nuovii orizzonti della decorazione interna: il BUXUS, in *"La Casa bella"*, n.10, October 1928
- 2 Gigi Chessa, La nuova costruzione moderna per uffici in Torino sul corso Vittorio Emanuele, in *"Domus"*, June 1930: Descrizione tecnica, *ibidem*; Enrico A. Griffini, Gruppo Gualino, Torino, Palazzo per Uffici, in *"La Casa bella"*, August 1930
- 3 Buxus, 4th International Exhibition of Modern Decorative and Industrial Art, Villa Reale di Monza, Tipografia Vincenzo Bona, Turin 1930
- 4 Cfr. Fortunato Depero nelle opere e nella vita, by the Legione Trentina, Trento 1940
- 5 Cfr. Società Cartiere Giacomo Bosso, Il Buxus - Relazione generale descrittiva, s.d.
- 6 Carlo Caminati, Il "BUXUS", in *"La Politecnica"* n.4, October 28th, 1928
- 7 Giuseppe Pagano, Il "Buxus", in *"La Casa bella"*, January 1934
- 8 Carlo Caminati, Il "BUXUS", *op.cit.*
- 9 Jeffrey T. Schnapp, Canto della materia. Il rayon e i tessuti autarchici, in Stefano Zecchi (co-ordinated by), *Estetica*, Il Mulino, Bologna 1995

PRESERVATION



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Aspects of Preservation of the Early Modern Movement

The National Agency for the Protection of Nature, Monuments and Sites under the Ministry of the Environment in Denmark initiated in the Summer of 1994 a collaboration with the Royal Danish Academy of Fine Arts, School of Architecture on the issue of the preservation of the early Modern Movement in Denmark. The target of this project was twofold:

- to illuminate the *ideological aspects* of the problems and possibilities of preservation, re-use and transformations of the architecture of this epoch;
- to investigate the *technical aspects* concerning preservation of structure, construction and materials of these buildings.

This paper will focus on a part of the ideological aspects of the research. One of the main issues in the conclusion is that the architecture of this epoch needs a new attitude towards the question of authenticity.

Authenticity has always been a key concept in the discussion about the conservation of our cultural heritage. However, the meaning of this concept has been taken more or less for granted, and a clear definition has been missing. The question of authenticity is complex in several aspects. Mass-production during industrialization has undermined the original concept and today there is a broader understanding of the concept. Especially

within art there have been several discussions, among others by Walter Benjamin. Many contemporary artists attempt in their work to clarify or to dissolve the concept of authenticity. In our Information Society the question of authenticity will disperse into many more fields and move into the everyday of the individual, as a condition and a state of mind on which a position has to be taken.

Being authentic refers to a specific event; it describes someone or something acting autonomously and not depending on others, having authority and a deep identity in form and substance, being original, creative, "unrepeated", unique, sincere, true, exceptional or genuine.

We have a rooted attitude towards the inherent "honesty" of architecture, but this is nothing in relation to our longing for the irresistible power embedded in the movement back in time through all the superstructures of culture, where all movement ends – and begins. In philosophy the concept of authenticity – "to be in accordance to the self" – has been important for existentialists such as Martin Heidegger and Jean-Paul Sartre.

In art the meaning of authenticity has changed through time. In the Middle Ages artistic items were defined and determined authentic by the church. The idea and the concept were more important than the true age of the item. In Europe the merits of a work of art were measured after a scrupulous investigation of the true age of the material. In the Far East the process of the making of a work of art defines the quality of authenticity, independent of the age of the work.

Authenticity is an intangible concept that will be continuously justified by critics. They excel in deciding if a work of art "is" – or pretends to be. They decide the value of a work and how much it deserves to be admired. Values are subject to cultural and educational processes, and may change over time, but authenticity cannot be added to the object: it can only be revealed so far as it exists.

In relation to the preservation of the buildings of the Modern Movement, it is relevant to dig into the writings of Walter Benjamin from the 1930s. In his essay: "The Work of Art in the Age of Mechanical Reproduction" he discusses the changes of

the meaning of the concept of authenticity through time. In the 1930s the concept took on a totally new meaning. The technology and methods of reproduction of this epoch allowed new possibilities for quality and speed of reproduction. Here art could become *produced* and *reproduced* to serve the needs of the masses in a way that had never been possible before. Instead of the historical uniqueness of a single object, art was transformed into the transitoriness and repeatability of the reproduced.

The same thoughts can be transferred to architecture. The architecture of the Modern Movement serves the needs of society for changing techniques of reproduction and the invention of new materials.

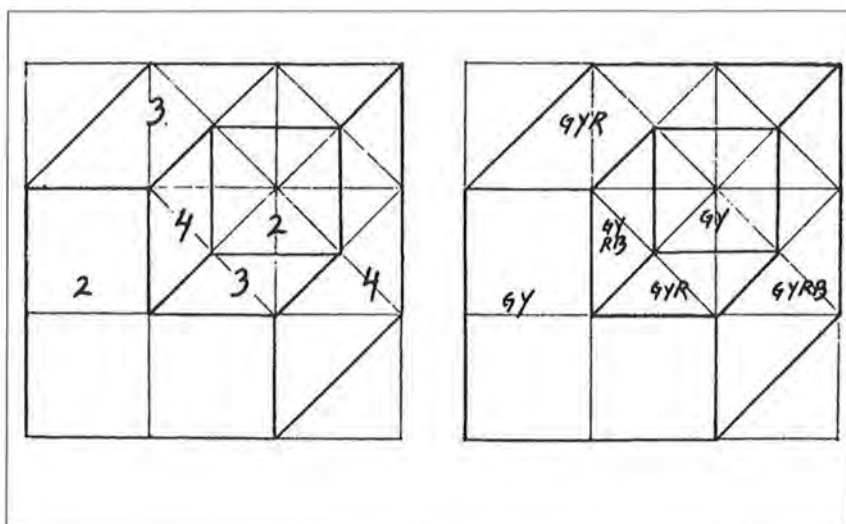
The concept of authenticity in contemporary art

For Umberto Eco, art has two aspects: the first is the creative aspect and the message from the artist to the perceiver. The second aspect is that a work of art is perceived by many people with different cultural and social backgrounds. The perception of a work of art becomes personal: there emerges a kind of "dialogue" between the work and the perceiver, defined as "The Open Work" (*Opera Aperta*) by Umberto Eco. This constellation can be found in the work of contemporary artists.

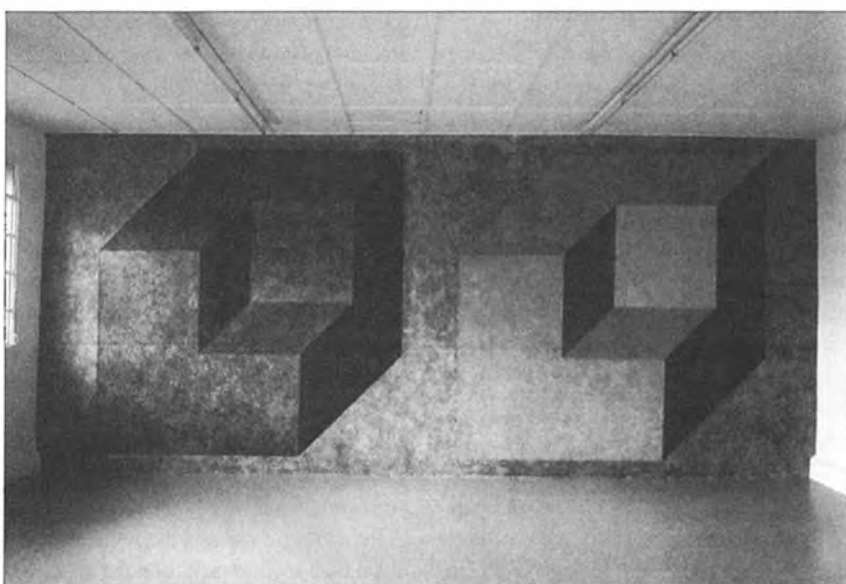
The American artist Sol LeWitt has been investigating aspects of authenticity in the execution of a work of art and its final form. His work is painted directly on the walls of the buildings. LeWitt's aim is that his work can be carried out by anybody at any place, without losing its authenticity.

A reproduction, as LeWitt defines it – executed as a copy of a painting by a pupil of an artist, or a photographic reproduction – derives always from an original that has a material consistence. LeWitt's conclusion is that the uniqueness and the original are as much intertwined as the transitoriness and replication of the reproduction.

Sol LeWitt's own work is different. It is not material, but conceptual. It is not tangible, only linguistic, because the concept exists as written language. The difficulty lies in the clarity of the wording of the concept. On the one hand the most simple conditions can be the most difficult to describe, and on the other, complicated interventions do not always need long, tedious descriptions.



Sol LeWitt: instructions for the execution of a wall painting „415 au fond de la cour a droite“, Chagny, France



Sol LeWitt: wall painting „415 au fond de la cour a droite“, Chagny, France

In its conceptual form, the work is independent of time and place and can in fact be realized by everybody at any place, under the condition that the instructions of the artist can be realized at that place. Depending on these differences, every new realization will contain its own place-specific character. In contrast to other reproductions, LeWitt's wall paintings are only material and unique in their condition as a reproduction, *even without the manual touch of the artist*.

When compared to the process of creating architecture, there is not that big a fundamental difference. The architect creates the concept and works out the guidelines for the realization of the work. The building process is executed by persons other than the architect. There are many different

processes between the description and the drawings of a building and its execution. The big question is where to place the criteria of authenticity: at the creation of the concept, at the execution process, at the production process of the materials or at the visual appearance of the final work?

It will not be possible to define a hierarchy in authenticity for a building. Each example contains its own characteristics and cultural values: the following categories can be listed, but there are also mixtures between the different categories.

1. authenticity of idea or concept
2. authenticity of the visual appearance of the building, its spaces and its details.

3. authenticity of materials, structure and building techniques
4. authenticity as a functional experiment
5. authenticity as a social experiment
6. authenticity as a continuous rejuvenating process

1. Authenticity of idea or concept

Many of the well-known villas of the Modern Movement are museums today: the Schröder House, the Villa Tugendhat, the Villa Savoy. They have lost their function, but they are important for other reasons than being in function. They function now as "models" for the Modern Movement. Some of them are remodelled "back" to the time were they were built.

Some exhibition pavilions are reconstructed: the Barcelona Pavilion is reconstructed at its original site in Barcelona. Others are reconstructed at a new site or even in another country: l'Esprit Nouveau, a pavilion exhibited in Paris in 1925, was reconstructed in Bologna in 1977. These buildings contain more or less their original "aura", despite their state of reconstruction.

2. Authenticity of the visual appearance of architectural form, of the spaces and the details

In the architecture of the Modern Movement, the visual appearance of the true materials have not always been that important. It was still too expensive to build houses in concrete, so they were built in other materials, because the exterior appearance of the material in its context was more important than the material itself. Experiments in structure and materials are today showing their deficiencies. Many of the original materials weathered inappropriately fast and the buildings are not insulated well enough for the requirements of today.

The school for handicapped children of Kaj Gottlob (1938) in Copenhagen is both a functional and an architectural experiment. Most of the building materials are still original. The building needs a lot of care to maintain the original materials and the insulation is not sufficient. In this case it could be questioned whether the authenticity of the materials is as important as the visual appearance of the architecture of the building.

3. Authenticity of materials, construction and building technology

Modern Movement architecture is not more "honest" in expressing the building materials than in earlier times. Some buildings do not "profit" architecturally from their advanced technology. The buildings do not have a modern appearance, even if an advanced modern technology has been used. Other buildings of the Modern Movement are technically rather conventional, erected of traditional brick walls, where the use of concrete is limited to small parts, as for example in the Schröder House.

The architecture of the Modern Movement did not emphasize textural surfaces. It was more important to express differences in opaqueness and transparency, and the ability of the surfaces to reflect light. Materials should express simplicity and inexpensiveness, as a result of the process of mass production. Many of the new materials were produced in a granulated form.

Mechanically-produced components do raise new questions concerning the concept of authenticity. Is a mass-produced building authentic in its materials? If there is a door handle missing, how can it ever be reproduced as a single item to fit the other door handles that are mass produced? The process of mass production can never be reconstructed.

4. Emphasis on the authenticity of the function

Modern architecture creates a perfect setting around a function. The forms of the spaces and their mutual position were the result of a detailed analysis of the function. At the same time most of the buildings are flexible and are built to fit changing functional purposes. The structure of the buildings, with large spans, allows continuous changes. The positioning of the walls is totally free. Flexibility and changeability are important elements in the spirit of the Modern Movement. In the preservation of the buildings of the Modern Movement it is also of importance to make the function fit

the building, just to preserve the ambience that originally belongs to the building.

The small airport of Wilhelm Lauritzen (1939), positioned in the middle of the new extensions of Copenhagen's Kastrup airport, only kept its original function for 10 years. Today the building contains offices and serves as a storage space. The original situation, close to the waterfront, is lost and the new function does not keep alive the original intentions for the building. A better alternative would be to move the building close to the water and to replace its present function with another, more appropriate, one.

5. Searching for authenticity in the social experiment

The reconstruction of the Kiefhoek, by arch. Oud in Rotterdam was also the reconstruction of a social experiment. It was important for the architect to retain the housing as a social housing complex with a diversity of family sizes. Much of the authenticity is lost when a housing complex becomes a complex of expensive private apartments instead of housing for low-income inhabitants as originally intended.

6. Authenticity as a continuous process

The age of the building material does not play a role in the Far East. The quality of the building lies in the process of production, the process of making it and the use of the tools, as it does in the preparation of a fine dinner.

In Japan, maintenance of wooden houses is based upon a cyclical process of various intervals. The houses are cleaned daily. In summer, the sliding doors – "*shoji*" – are removed and the bamboo blinds are hung to cool the rooms. The "*shoji*" doors are prepared annually and the "*tatami*" mats are changed every five years. The wooden pillars of the houses are repaired or replaced every generation or two. This cyclical and repetitive maintenance keeps up the essential living heritage. Religious rituals are also related to this cycle.

A condition for this process is the tectonic composition of the buildings. The Ise-temple is even periodically reconstructed every twentieth year, without losing its authenticity. To keep alive the process of making is to keep alive the authenticity of the buildings.

Conclusion

On the one hand the architects of the Modern Movement tried to escape the cycle of architectural styles, but on the other they also tried to establish a final "Style". The result of this architectural epoch is an architecture of extreme transience. Architects of the Modern Movement did have another attitude towards the durability of a building. The building techniques were experimental, with the risk that construction, materials and details weathered and behaved differently than in architecture that came before it.

To prolong the existence of a building against its original intentions is paradoxical and against the most fundamental premises of the Modern Movement. The most consequent method would be not to preserve these buildings, but this attitude would result in a historical vacuum. An architectural movement that has transience as its ideal can therefore not escape history either. The heritage of modern architecture, which as a historical legacy has already completed its initial life cycle, may also be the object of transformation or extension.

The dynamic conservation management of the built environment, and the approach to authentic living traditions requires an appropriate process. Such traditions are becoming rare in the present-day world, and although they should provide the required knowledge and skills for their continuation, they will also need support in the general planning and management in order to maintain their artistic authenticity.

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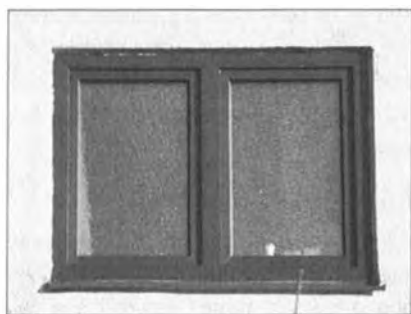
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Aspects of Preservation of the Early Modern Movement in Denmark – Technological Aspects and Regional Expression –

This paper deals with the Modern Movement in Denmark, stressing the importance of material character and surface quality as well as the diversity of materials and ideas expressed through architecture.

International Modernism

In 1919 the architect Carl Petersen in a lecture and an article expressed the importance of defining the firmness of the surface, avoiding polished and reflective surfaces, and instead emphasizing form by a flat but mat surface. This opinion on the quality of the surface was intended as



Bellavista housing estate, A. Jacobsen 1932.



New aluminium window frame.

a general definition of material in relation to form.

With their greater and more specific diversity the surfaces of modern industrial shapes – for example, balls for different games, the lacquer of a car, the riveted metallic surface of an airplane or the streamlined sheets of a cruiser: in sum, industrial treated surfaces – became an important inspiration for the material definition of the Modern Movement. In Denmark this fact has been reflected among others in the writings of Steen Eiler Rasmussen. (1)

The surface became a signal for the Modern Movement with, for instance, the white plaster of Arne Jacobsen's Bellavista estate of 1932, which in fact covered a brick construction that almost acquired a geometrical definition, its bright and



Original steel-framed window.

deep-white surface of lime-coloured plaster still shining so bright that it cannot be imitated in any other material (Fig. 1).

The Bellevue theatre was erected at the same site in 1937. Like the hold of a big cargo ship, it can open its roof to receive a further load of stardust after the first act, so that the show can continue. The walls of the theatre are covered with striped white

and blue fire-proof canvas which suggests a maritime connotation, but actually seems to refer to the tent constructions of the amusement park and spa resort that used to occupy the site.

Close to Bellevue is a service station of 1937, also by Arne Jacobsen, which suggests a new building type for a new function. Covered in glazed white ceramic tiles,

it looks like a blood bank and a surgery station for cars. Materials were indeed functional, both in construction and in meaning.

The buildings of the Modern Movement are delicate and need great care. The treatment of modern buildings must therefore also imply detailing, because materials and surfaces could be destroyed by new insulation, plaster, colours, or windows.

Measurement of old and new windows in the same settlement (2) show that whereas an old steel frame fills less than 10% of the window, a standard aluminium solution occupies more than 30%, with a result that not only has aesthetic disadvantages but also provides a lower light level (Figs. 2 and 3).

The fairfaced surface of the concrete wall from a distance defines a sharp geometry, while close up offering a new tactile dimension which exposes the traces of the wooden scaffolding in a way similar to the experimental monolith house for the "concrete centre" by Frits Schlegel in 1932.

A different material impression is offered by Kay Gottlob's 1934 entrance for a major office building in Copenhagen. The columns and the walls are clad in aluminium in a riveted technique similar to that used in airplane constructions.

The surface of airplanes also seems to have inspired the airport (1939) by Vilhelm Lauritzen, clad in sheets of eternit and steel. Moreover, the building partly stands on columns, has a free facade, *fenêtre longueur*, free plan and roof terraces that emphasize the ideal of le Corbusier's five points of architecture in Lauritzen's own personal interpretation.

Philip Johnson and Henry-Russell Hitchcock have suggested the advantages of plate cladding as the best expression for a building's surface, suggesting volume instead of mass. (3) This could be done with different materials such as metalplate, plywood, natural stone, eternit, ceramic tiles and others. The facade of the Copenhagen radio house by Lauritzen (1939-45) is an example of plate cladding by large ceramic tiles (30 by 50cm) which makes the pattern of the thin joints subordinated, emphasizes the surface and expresses the cubic shape of the building volume.

Other examples clad in ceramic tiles were made by, for instance, Bent Helweg Møller, who in the early fifties projected a printing house for a newspaper, with a facade covered with square tiles (app. 15 by 15 cm) with a deep relief that seems to resemble the lead letters used in the printing process.

The Functional Tradition

In contrast to the universal tendencies of international modernism, a more traditional and regional theme followed a line deriving from the architect P. V. Jensen Klint.



Aarhus University, K. Fisker and C.F. Møller, 1932.



Copenhagen Water Supply, Ib Lunding, 1931.



Furniture shop, Svørdborg.

At the beginning of the century he stated that Danish architecture was the church, the manor house, the farm and ancient stone graves. He also stressed the importance of the relation between material and architectural expression. This was a starting point for a renewed architectural tradition where both myths, traditional building technology and common sense were important inspirations.

The works of Kay Fisker, in particular, embody the regional approach. Inspired by an article in *Architectural Review* in 1950, Fisker even denominated the Danish movement "the functional tradition". The architecture of this movement dates back, however, to the 1930s, with buildings such as the Vestersøhus housing estate and the University of Aarhus (Fig. 4). Both these buildings were by Kay Fisker and C.F. Møller, and exemplify a high standard of detailed brick work and often pitched and clear-cut roofs, as in the Dronningegaarden from 1943, an estate built during the war with native materials and very little use of iron, and projected by Fisker and Eske Kristensen. The functional tradition emphasises detailed brickwork, and detailed woodwork of oil-coloured windows and doors, and makes material qualities and contrasts central.

The studio houses from 1943 of Viggo Møller Jensen, built with yellow flamed

bricks, eternit roof and wooden windows, doors, and fences, constitute an attitude of material composition that connects functional tradition to contemporary Danish architecture such as, for instance, the works of the Danish group of architects called "Vandkunsten".

Brickwork has been a major material for a long tradition of architecture in Denmark, a country with very few natural stone resources. And even in modern architecture, brick, alongside concrete, is the major building material of the period.

In some projects the architectural expression was formed in the new use of the materials, as in the villa designed by Holger Jacobsen in 1933, where the walls were built in different brick patterns formed on the basis of an illusionistic Chinese inspiration, something which also established a connection with the owner's profession as director of the East Asiatic Company.

The works of the architect Ib Lunding even suggest mythical dimensions in brick and concrete. This is architecture inspired by science fiction and the Atlantis myth. One example is the housing estate of Grønningen from the mid-thirties, where the windows of the staircase rise as circles of different sizes, like bubbles from a sunken culture.

In Copenhagen's waterworks, also by Lunding (1931), small towers are formed like space shuttles and cast in concrete with glass prisms fixed in shell-like star constellations (Fig. 5).

Modern architecture shows a wide range of material use with both functional and expressive meaning. Modern Movement could occur just as easily in anonymous works of architecture as in well-known monuments.

A facade for a barber's shop, an addition to a farmhouse (Fig. 6), and even an electricity installation could be arranged as an architectural composition, just as well as a glamorous theatre could. An understanding of the diversity of the Modern Movement will therefore suggest its heterogeneity and universality at the same time.

NOTES

- 1 Rasmussen, Steen Eiler, *Om at opleve arkitektur*, (Experiencing Architecture), Copenhagen, 1957.
- 2 The terraced houses of Emanuel Olsens Vej at Frederiksberg, by Dahlerup Bertelsen, 1932.
- 3 Johnson, Philip and Henry – Russell Hitchcock, *The International Style*, New York, 1932.

Preserving Modern Housing: The English Experience

The quality and level of design innovation of public housing built in Britain from 1945 until the 1970s was undoubtedly very high, and gained international recognition, but nevertheless, this is the most controversial building type of the last sixty years. Successful conservation of public housing after the War has to address a very difficult set of issues. These include the often massive scale of the buildings, the social ambition and current public perception of them, as well as more broadly encountered problems such as concrete repair, the treatment of mass produced elements including windows, and methods of improving the technical specification of the buildings in terms of insulation and servicing.

I will look at the three examples of public housing after the War in England which have been listed so far, and try and draw from these cases lessons which can be applied to the much larger group of housing schemes which have recently been put forward for listing by English Heritage, and which I hope will be of relevance to those of you working on this type of building in other countries. In England we also have a second method of conservation control, *conservation area legislation*, and I will look at the benefits of using this in conjunction with measures to protect individual buildings. DOCOMOMO UK has played a very important role in two of the three cases and my colleagues and I are

indebted to the hard work and enthusiasm of Christopher Dean.

English Heritage is the national body created by the British Parliament in 1984 and charged with the protection of the historic environment and with promoting public understanding and enjoyment of it. We are the Government's official adviser on all matters concerning heritage conservation, the majority of our funding comes directly from central government and we in turn provide substantial funding for archaeology, conservation areas and the repair of historic buildings. We are also responsible for some 400 properties in the nation's care.

Our advice to Government includes research *identifying* buildings which should be protected by listing and subsequently guidance on *what alterations to these buildings would be acceptable*. Listing is not a process which aims to "freeze" buildings in time. The legislation is underpinned by the belief that the long-term interests of buildings are best served by them remaining in use- and that usually the best use is that for which they were originally designed. Listing tries to ensure that if any changes are necessary they respect and retain those qualities and characteristics that make the buildings special. Conservation Area controls are almost exclusively the responsibility of local government, and English Heritage has much less direct involvement. They can only affect the exterior appearance of buildings and offer no protection to interiors.

The three examples of public housing after the War which have been listed (see table) were all considered to be of at least national interest for both architectural and historic reasons, and all were threatened by major alterations or, in one case, complete demolition. They share a sculptural virtuosity, chart the development of innovative approaches to access arrangements, and show an increasingly sophisticated mediation between public and private space.

All three buildings are in London, and all were listed in advance of a wider review of post-war buildings which has focused on specific building types. This thematic study was begun in 1992 and will be completed in 1997, and, as mentioned above, housing recommendations have just been made.

Until 1987 the cut-off date for listing was 1939, but the proposed demolition of Sir Albert Richardson's Bracken House, 1957-59 prompted the then Secretary of State to establish the principle that buildings over thirty years old could be listed, as could buildings over ten years old if they were of exceptional quality and under serious threat.

Bracken House was listed grade II* and listing has not prevented an imaginative and very successful office conversion by architect Michael Hopkins. Listing grade is particularly significant in the context of buildings built after the War. There are three grades of listing I, II* and II accounting for approx. 2%, 4% and 94% of the total numbers of listed buildings respectively, (and only c.2% of buildings in the country are listed). In order to be listed under thirty years old, buildings need to be of grade I or II* quality, Balfron Tower could only be listed at grade II because it was over thirty years old.

A recent Government consultation document "Protecting our Heritage" addressed the view that with limited historical perspective it is difficult to make definitive decisions on the merits of buildings of recent decades. It suggested that a new form of listing could be introduced that "acknowledges that the assessment of such buildings must be to some extent provisional and open to review" at, say, fifty years old. There has however been strong opposition to this proposal, not least from English Heritage, as this would signal uncertainty whilst retaining listed building controls.

Alexandra Road

Alexandra Road is the most ambitious of a series of low/medium rise high-density housing built by the in-house architect's department of the then newly formed Camden Council in inner north London. The job architect for most of the project was Neave Brown, who aimed to reinterpret and humanise aspects of European modernism by building on ideas explored in schemes such as Le Corbusier's *Roq et Rob* project, 1949, and *Atelier 5's Seidlung Halen*, 1961. These were fused with a reworking of British urban vernacular forms which would allow his housing to integrate with surrounding street patterns and form the appropriate "continuous background stuff" to act as a foil for pub-



London - Camden - Alexandra Road Estate, Alexandra road, October 1992. Photo: English Heritage

lic buildings whilst encouraging the chance contact between neighbours that would create a "cohesive street society".

Alexandra Road has always been controversial, initially because the site chosen was very close to an affluent middle-class area. Later it gained increasing notoriety as the construction programme ran into a series of physical and organisational problems and costs quadrupled. (1)

The site is bounded to the north by a railway line and the most northerly block is therefore designed as an acoustic barrier, screening the rest of the site. Together with a second, slightly lower long block this forms a gently curving terrace which Neave Brown compares with the great Georgian crescents of London and Bath, where individual units are discretely articulated within a larger structure. Both blocks contain two-storey maisonettes. (2) Each unit has a wide balcony/terrace with large sliding doors leading out from the living area. Sliding screens allow for flexible use of internal space and the maisonettes are unusual in that the lower entrance level has bedrooms and bathroom whilst the upper level has kitchen and living space. A row of houses have a similar plan form. There are also communal facilities: a boiler house for the district heating system, a community centre and a school for severely disabled children, a park (all designed by the council architects). The housing and all of these buildings, apart from the school, were listed grade II*. Two buildings by Evans and Shalev for the Social Services

Department and a later phase of housing, shops and workshops by another private architect, Tom Kay were not listed.

The Alexandra Road Estate was ironically threatened by the injection of major funds from the same department of central government which was then responsible for listing buildings: The Department of Environment(3). It had been awarded a 8.5 million pound sterling "Estate Action" grant. This was a funding programme which aimed to "transform unpopular housing estates" by improving both physical conditions and management structures. Among the works proposed were replacement of the specially designed stained timber windows with upvc windows, new security lighting and landscape alterations, reroofing, concrete repair. These all affected crucial elements of the original design concept. Many of the problems that have arisen are the result of inadequate time being programmed for detailed design work in a contract let partly on a performance specification basis. In addition the architects' wish to use standard products and obtain manufacturers guarantees for many aspects of the works has made them reluctant to investigate more imaginative approaches which in many cases could have produced a better result. (4)

Listing followed shortly after the establishment of a *Tenants Management Committee* formed to increase residents' involvement in the running of the Estate. Some tenants had exaggerated the influence that this group

would have on the Estate Action works, believing that they would act as the client and be able to choose the architect. These tenants, some of whom were involved in getting the building listed, saw English Heritage as a positive promoter of high design standards, whilst others saw listing as the reimposition of a bureaucratic, middle-class control. It was easy to blame listing for delays that had a variety of other causes, and these circumstances have made it particularly difficult to argue convincingly that listing can play an important part in establishing a sense of local pride and thus aid revitalization.

Shortly after listing the main estate buildings, it was proposed to sell Evans and Shalev's Centre for Younger Physically Handicapped Adults. This is built of fair-faced "Forticrete" concrete blocks and is notable for the geometric precision of its elevations and a complex cross section designed to draw light into the communal heart of the building. The potential purchasers, who wished to redevelop the site, successfully applied for a *Certificate of Immunity* from listing, a guarantee that the building will not be listed within five years. This was granted because the building was not thought to be of grade I or II* quality, and would not become eligible for grade II listing for more than five years. Therefore the only conservation ground on which the proposals could be opposed was the effect that the proposed new vernacular-style housing would have on the setting of the listed portion of the Estate. English Heritage proposed the designation of a *Conservation Area* to include the listed buildings together with the unlisted Evans and Shalev and Tom Kay buildings and the school, which is also unlisted. This would ensure that Camden would have a duty to "preserve or enhance" the character of the area when determining applications. It could also make alternative funding sources available and should lead to the development of positive strategies for environmental protection and improvement. Camden Council were initially reluctant to designate, but English Heritage sought the permission of the Secretary of State to proceed if Camden did not act themselves, and a conservation area was finally designated in 1996. Unfortunately little has yet been done to implement positive policies for the Estate.

Keeling House

Keeling House is an important early work of Denys Lasdun (5) whose principal works include *The Royal College of Physicians*, 1960, and *The Royal National Theatre*, 1967 (both in London). Earlier in his career he was a member of Tecton.

Keeling House is a four-winged "cluster block" (6). It is sixteen storeys high, comprising 56 two-storey maisonettes and eight single-storey studio flats (two units per wing on each floor, raised over a communal floor). The plan form is neither a regular pin-wheel, nor is it symmetrical about two axes; rather the wings are arranged so that all kitchens, living and bedrooms receive some sun, each can be cross-ventilated and there is maximum privacy from within the flats themselves. The

separation of the lifts and rubbish chutes within the core reduced noise. However the access balconies were conceived as vertical equivalents of the traditional streets and locations for chance encounters between neighbours. There were also communal drying areas on alternate floors of the core.

Unlike Alexandra Road, Keeling House was not fully tenanted when listed. Because of concerns over spalling concrete, all but the most determined tenants had been decanted, and an application had been made, by the local authority to the Secretary of State, for a Certificate of Immunity from listing. A report by architects Hunt Thompson Associates had identified serious technical problems with the building. Although it was not argued that the building was irrepara-

ble, it was felt that the costs would be very high and might compromise the original design of the building, (particular concerns were maintaining the contrast between the insitu concrete and the permanent shuttering which clads the end walls, and the anticipated need to enclose balconies). In this case the Certificate was not granted and instead the building was listed. However, the Secretary of State issued a press release explaining:

Listing clearly creates a presumption in favour of a building's preservation, but it does not necessarily mean that a building must be preserved whatever the cost; its main purpose is to ensure that care is taken over decisions affecting its future.

English Heritage attempted to persuade the local authority to prioritise Keeling House for the local share of central government housing grant via an independent housing association. This was not successful, and an independent feasibility report, produced for English Heritage by engineers Harris and Sutherland, suggested that the repair costs had not been significantly over estimated. At this point the most likely source of funds seemed to be the Heritage Lottery Fund. A National Lottery started in Britain in 1994, distributing money to five separate "good causes" (sport, arts, charities, millennium fund and heritage). However, earlier this year a bid for 9.9 million pound sterling out of total costs of approx. 11 million pound sterling, was rejected for a number of reasons including the unproven nature of the concrete realization process proposed, and the future of Keeling House looked very bleak. However a new private housing trust, *New Age*, are now interested in the building and believe that the works can be carried out for approximately half of the previous estimates, without the need for public or charitable finance. This enormous financial disparity highlights the great degree of uncertainty in estimating costs of techniques which are still developing.

The cost per housing unit is obviously crucial to the overall viability of any scheme, and this might be reduced by including the two lower blocks in a single project. These are not listed or in a conservation area, and as at Alexandra Road the local authority who is responsible for identifying potential conservation areas con-



London -Tower Hamlets - Keeling House, Claredale Street, December 1992. Photo: English Heritage

tains departments whose policies would suggest demolition of these buildings (in this case for redevelopment with smaller scale housing). English Heritage has not in this case sought to preserve more than the cluster block itself, although the lower blocks are also of significant interest and could perhaps form a conservation area.

Balfon Tower

Balfon Tower is the work of Ernő Goldfinger (1902-87), a Hungarian refugee who studied in Paris at the Beaux-Arts and in the atelier of Auguste Perret before moving to live in London with his English wife in 1934. His work has recently become much more widely known in Britain because the National Trust has acquired, and opened to the public, the house that he built for himself in Hampstead in 1938. This building exemplifies Goldfinger's precise attention to very carefully modulated proportion, a concern which still underlies his much more robust later housing schemes.

Balfon Tower (1965) and the very closely related *Trellick Tower* (1967) are both high-rise elements of larger housing schemes (7). In each case the lift tower is widely separated from the main block, and as at Keeling House this was designed to reduce noise levels. The tower has two floors corresponding to every three floors in the main block: this gives dramatically tall, vertically alternating communal facilities and lobbies linked to the enclosed galleries to the flats. The projection at the top is the gas-fired boiler room(8), the current metal flues are a recent replacement of the original pre-cast ones which were very much part of the more organic, moulded vocabulary of the lift tower which is contrasted with the box-frame construction of the slab. (9)

The immediate problem that prompted the listing of Balfon Tower was the proposal to replace all the wooden windows with upvc ones. The block stands next to a main road, the Blackwall Tunnel Approach Road, which is being upgraded to take a much greater volume of traffic. As a result of this, the Department of Transport has made a considerable amount of money available for sound insulation work and initially 750,000 pound sterling was allocated to Balfon. Contractors assured English



London - Tower Hamlets - Balfon Tower, St.Leonards Road, August 1991. Photo: English Heritage

Heritage and the local planning authority that it would be possible to replicate the cross sections and form of the existing windows in upvc to "within millimetres", but when a sample was finally produced it was unsatisfactory: the relationship of the frame to the casements was wrong, the casements were too wide and set proud of the frame. English Heritage has suggested that a powder-coated aluminium-covered wooden section should be used instead, and a new sample is being produced.

There is considerable enthusiasm amongst tenants and housing department staff for a conservation area at Rowlett Street to include the later phases of the Goldfinger design. It is anticipated that this will lead to an application to the Heritage Lottery Fund

for landscape restoration and possibly the reuse of some of the redundant and dilapidated communal facilities.

All three buildings have therefore been spot listed as a response to imminent destruction or severe damage. This is obviously far from ideal and it would be greatly preferable to preempt crises and be able to be assured of a reasonable level of understanding and acceptance of listing before major works are proposed. Management guidelines can help to identify what works are likely to need listed building consent and suggest design solutions for frequently desired alterations and improvements. Conservation professionals can also advise on the development of major refurbishment works to ensure that

the best qualities of the buildings are reinforced and practical problems are solved. Individual residents' concerns about the curtailment of their own alterations are usually unfounded as any works that would require consent are usually already expressly prohibited by tenancy or lease agreements.

Public consultation on the proposed listing of nineteen further public housing schemes started at the beginning of this month and has generated a great deal of public interest. The most controversial suggestion is Park Hill, by the Sheffield City Architect's Department under J. L. Womersley. Built on the hill above the station, it uses the slope to produce a continuous development that rises from four to thirteen storeys with flats reached by "streets in the sky", four broad access decks, all but the uppermost of which eventually run out at ground level. A special leaflet has been sent to each of nearly a thousand flats to explain why it is that we feel that this Estate is of outstanding architectural and historic interest. Historic buildings legislation will only be effective if it is supported by public opinion, but although press and television reports of this phase of the listing programme have laid the blame for many poor quality schemes on the legacy of some of those selected, a recent opinion pole showed that approximately 60% of people thought that it was "important" or "very important" to protect the best post-war buildings.

Conclusions

The listing of housing after the War obviously raises many of the same issues as other buildings of the period on a very large scale, but there are also particular additional concerns and the concept remains highly controversial. We have undoubtedly learnt a lot from the three circumstantial test cases, and the following lessons may have broader international significance.

1. There must be a clear strategy, which may take several years to develop. Emergency action does not enable objectives to be clearly explained, and broad public support needs to be gained for the overall aims.
2. There will be many cases where it will be beneficial to combine strong measures to preserve individual buildings with broader area-based conservation to protect their setting and subsidiary buildings.
3. It is essential to try to gain the support not just of those with an established interest in conservation, but above all of the people who live in the buildings and whose lives are directly affected. Conservation legislation can promote a high standard of new design for alterations, can help to create a distinctive sense of local identity, and can have a key role in the revitalization of buildings which are undoubtedly a potential outstanding legacy of the 20th century which we are currently very much in danger of losing.

NOTES

1. The initial tender figure was just under 5 million pound sterling and the final cost almost 19 million pound sterling.
2. Two layers in Block B, three and one layer of flats in Block A
3. In April 1992 the Department of National Heritage was formed, with responsibility for Heritage, Sport and Arts. It is now responsible for listing, although consent matters remain the remit of the DOE.
4. For example, concrete repair.
5. Lasdun was born in London in 1914 and studied at the Architectural Association. From 1935-37 he worked in association with Wells Coates, a founder of the Mars Group; before joining the partnership formed around Lubetkin, Tecton. After Tecton was dissolved in 1948, he developed the Hallfield Housing scheme in partnership with Drake, who had been a partner in Tecton. They subsequently joined the office of Maxwell Fry and Jane Drew, to look after the office whist Fry and Drew worked on Chandigarh. In 1960 he founded Denys Lasdun and Partners, with Alexander Redhouse and Peter Softley.
6. It is a more sophisticated development of a related scheme which Lasdun had designed shortly before, also for Bethnal Green MBC. Bethnal Green is a particularly poor area of East London which was very densely developed in the 19th century and contains important examples of public housing of all succeeding periods.
7. The former Rowlett Street in the east end of London and the latter, Edenham Street, to the west. Both were designed after high-density low rise schemes had begun to have an impact on thinking in Britain.
8. It was originally placed here to free up the ground floor area. It was initially intended to be flush, but was redesigned in a more dramatic projecting form when required to serve additional phases of the development.
9. Unfortunately both Balfron and Trellick have lost their dramatic roof-top concrete cornices.

BUILDING	Alexandra Road	Keeling House	Balfron Tower
ARCHITECT	Neave Brown	Sir Denys Lasdun	Erno Goldfinger
CLIENT	Camden Architect's Department Camden Housing Department	Bethnal Green MBC	London County Council/GLC
DESIGN DATE	1968	1855	1963
NUMBER OF UNITS	approx. 500	56 maisonettes 8 studio flats	136 1&2 bed flats 10 maisonettes
CONSTRUCTION DATE	1973-78	1955-57	1965-67
LISTING DATE	Aug. 93	Nov. 93	March 96
GRADE	II*	II*	II

EDUCATION



Mabel M. Scarone
Penyo Stolarov

Allen Cunningham
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Intentions and Policies for the ISC-E

In chairing the International Scientific Committee for Education, since having been appointed in our former meeting, held in Barcelona, I have found in response to my requests and consultations, made at different levels to national and international cultural organizations, evidence that strengthens my conviction of this Committee's importance.

A Committee that will only grow to be a significant and a useful tool for us all if - having been ratified the proposal of its "Action Plan" (program - aims - actions) for the next two years' work by our Assembly Meeting, this Action Plan should be assumed as a useful tool, not only by each and all of our national working parties, but also by this scientific committee, acting in close relation with others of the same kind, be they part of MoMo or out of MoMo's sphere of action.

Having said this, I should now stress the importance of understanding the difference of our Plan of Action from others responding to similar activities - Training - within the cultural policies of organizations concerned with heritage conservation.

All are geared to studies referring to the proper evaluation of a Case, or Cases; leading to their proper Conservation, Preservation, Restoration ...; the reuse of

those documents of the people's past.

We are expected to do likewise within the radical changes that give MoMo its significant background, that which it calls upon for its creation and existence.

But I think we should specially insist that in the underlying persistence of the founding principles of the MoMo - those which are still at the very roots of our present teaching (or should be) in the schools of Design and Architecture, - is where we will find the argumental difference to other similar committees I have made reference to.

All those others manage with closed areas of study and research; ours is open ended and ever growing since it should encompass and have in mind not only the conservation of its recent past as a living entity. This is the core that is the working substance for training our professionals for the future.

It is in this very sense that we should strive to put into use the different experiences of our founding fathers - as instruments for discussion and research in the ateliers of our architectural schools - in the meetings of our professional bodies. This is the message for one of the most important of the actions at national level I would foresee for our working parties from the different continents of the world.

Firmly convinced of these facts and of our future scope as a specialized committee, by following those proposals for our cultural policies related to training, I felt that the ISC on Education (ISC/E) should gain experience drawing upon the potential importance of the material that had already been put together by the International Science Committee on Registers with the collaboration of the National Parties.

Therefore the ISC/E decided to use as a tool for its first exercise the nearest register on hand as subject matter for a pilot action, putting it to immediate use as it was then, in a plan dealing with training matters in subjects related to: Design, Theory and History of Architecture.

It was immediately felt that to fulfill a useful role, registers needed to hold the information listed below: all original plans; construction details; photos of maquettes made for working or exhibition interests; a reference to alterations due to use; modifications in the urban setting.

This evidence has already given us clues as to further requirements, in this case to ISC/R, which should work related with ISC/E.

The results of our testing "partial ready to use" MoMo material - to which I will return at the end of this report (and for those interested in using the experience I have brought part of this work with me) - show the way for our future actions concerning other International Committees.

Here again I should fall back on the "joint activity idea" with other Scientific Committees, drawing forward, as an example, the field covered by the one engaged with technology - bound to be also of a growing importance in bettering our "know how" on MoMo's built forms; the principles backing appropriate interventions and basic theories in repair work with due insight as to the important ethical problem of authenticity.

No MoMo design can do away with construction and technology, neither can there be a divorce in the necessary related areas within the scope of a soundly planned training program. Here, ISC/E should play a significant international role in bringing together experiences such as have been referred to before, within the context of the discussions on the "authenticity of buildings and the authenticity of ideas" - the matter of World Heritage concern of this moment.

To parallel those out-of-doors policies, our ISC/E should inwardly tend to organize the "laboratories" for "la recherche patiente" (quote from Le Corbusier, "Entretien", 1957). Such efforts should specially stress building on MoMo principles and developments:

- a) To set up a current intercourse of experiences with different schools of architecture on a regional basis at a graduate level, to begin with, and gradually build a network for future policies;
- b) Begin by inviting a reduced number of schools that are already "on the job" in these matters, and have shown their willingness to be part of this tentative working net, using their Design subjects as modules for research and experience.

This has already been discussed as a possibility in the Latin American region

through the XVI CLEFA reunion and the First UDEFAL meeting that took place at the end of 1995 at Montevideo, Uruguay.

A last item to add on to this list of our committee's activities demands a clear-minded, in-depth approach that is not easy to improvise in the present circumstances.

This item deals with the need of an exchange policy with existing recognized university postgraduate courses on conservation.

A two-year research into this subject has shown and pinpointed the existence of several such Courses or Centers, but only one concerned with MoMo architecture as a whole.

The need for us of the existence of such a Center is there and the general interest in its existence verified. The general question has been: who can cope with the necessity that should fulfill theoretical and technical training requestments different from all other courses geared to saving buildings of the past.

I will not go into further considerations into this point I consider fundamentally important for our role as an international scientific committee within the only NGO group concerned with modern architecture.

In saying this I should confess that, having gone through the papers that will be read in this session, I particularly have to stress the importance of the proposal worked out by Allen Cunningham that came as a relief in my agony due to the situation of my research on postgraduate training at the end

of the last year. I warmly ask you to mediate on this presentation since I am sure you will, like myself, sense that a solution to the problem of specialized training on MoMo architecture lies in his work.

The paper of Daniel Bernstein, too, hammers on a partial, though fundamental, training mythology which I would also underline for your attention.

Both proposals should be subject matter with which to complete the action program for our Committee's action in the future.

A round-up miscellany to end the Committee for Education's report: We have already started activities with other NGOs (mainly three) with similar interests in education:

- 1) Youth and Heritage
- 2) ICROM
- 3) ICOMOS International Committee for Training

In reference to Youth and Heritage, we believe the link has importance since it has been working for many years, under the patronage of UNESCO, with school children – primary and secondary levels – and also universities at graduate and post-graduate level. Their philosophy, aimed at preparing future generations to understand and protect the built-up environment, is a founding stone for our own actions.

ICROM cannot be ignored in our field since, again, it is a senior and world-recognized institution in the field of learning.

Since Prof. Jokilehto – its Director, whom most of you probably know or have heard

of, – could not travel to Argentina (he is also the President of the ICOMOS Committee for training), we invited Prof. Zador from Hungary, vice president of that same Committee.

From the 13th to the 20th of August last, we held a number of meetings concerning our subject which are to be conducted on the same lines as those referred to in dealing with Youth and Heritage.

All these approaches are aimed at establishing a world net of interests and experiences on a clearly established principle: that each international non-governmental organization should keep its complete independence and identity.

For DOCOMOMO this point is especially important, due to the fact already pointed out that makes us different from our other senior colleagues of ICOMOS – ICROM – TICCIH. Here I refer to my first remarks on this same subject.

A different aspect, which nevertheless will be important to link us world-wide in our training policies with other groups such as those already listed, has also been considered: the link to a reliable system of communication. Internet has been suggested and we are giving this very serious consideration.

To sum up – and this is indeed the very end of my report: there is much to do ahead of us – I hope you all share the same excitement that drives the members of this Committee forward and urge that you should all help us to get ahead and support us in our efforts.

Modern Architecture as Educational Catalyst

There are five questions I wish to address:

1. Is there a thesis for modern architecture?

The premature declaration that Modern Architecture is "dead" prompts the need to define what it is very carefully. It is the inevitable outcome of a series of historic events.

First was the launch in 1671 of the Académie Royale de l'Architecture which transformed architecture from a customary activity into an academic subject. Learning supplanted experience, and architecture as a "profession" was born and its division into specialisms in order to teach it followed.

Secondly, the Modern Movement required economic, scientific and technological conditions to spawn its conception. In the 18th and 19th Centuries pure science and technology contributed directly to the growth of specialised industries. By the start of the 20th Century the scientific, technological and productive means were in place to serve a new architecture.

Third, there emerged an empirically assembled series of ambitions to inform modern architectural practice including:

- rational, methods to be applied to architecture;
- the programme was recognised as generator of form;

- belief in architectural determinism implied a causal relationship between architectural form and social behaviour;
- technology was recognised as a civilising force;
- transparency and layering replaced perspectival conceptions of space;
- consequent upon the diagnoses of diseases (particularly tuberculosis) as the human price of overcrowded, polluted 19th-century cities, and exploitation of the internal combustion engine, architecture and planning were unified into urban forms as panacea;
- the new architecture should reflect the zeitgeist to become, in Gropius' words: "the inevitable, logical product of the intellectual, social and technical condition of our age"

With the state as patron, architecture became, also, the expressive means of a socially orientated political will. Within such generalities a range of individual prescriptions were formulated, (e.g. *de Stijl*, *Purism*, *Futurism*, *Minimalism*, *Constructivism*, *Expressionism*, *Socialism*), and attempts were made to unify architectural and planning intentions (e.g. CIAM, MARS, TEAM 10, FORUM). There continues nevertheless a cultural chasm between modernists and traditionalists, witness the still raging "Berlin Debate" in Germany, sparked by Lampugnani and engaged by Libeskind.

Conventional wisdom mistakenly assumes that modern architecture is the product of a unified international movement. This conference signals a more complex, humane philosophy than the simplistic International Style of Hitchcock and Johnson. What distinguishes modernism from classicism is that whereas the latter relies upon the false security of prescribed rules, the former is generated by open-ended, flexible, dynamic, speculative habits of the mind responding to a changing world. This poses educational challenges.

2. What is the Epistemology of the Discipline?

Education mirrors its cultural context. The Beaux Arts matured during a period of cultural stability. Practice was normative, form a priori. During periods of cul-

tural upheaval such as that which spawned the 20th-century Modern Movement, innovation undermines formal, technical and social conventions. The liberal mind requires openness of philosophical speculation, problems dictate solutions. Modernism is stifled by over-structuring.

Architecture is not a discipline in the traditional academic sense for there is no clearly defined body of knowledge which serves it. It has no single organising principle, no central intellectual paradigm. It trades off scientific methods and theories, from technology, from fine art and literature, from history, from philosophy and the world of ideas, from the studies of man, psychology, sociology, anthropology. None are absolutes, each is servant to the cause.

A further problem - architecture cannot be said to progress; technology doesn't make it "better", it makes it "other". The "tendency" described by Frampton "to privilege technology as though this were an essential but totally acultural discourse" mistakes the means of production as master rather than servant of the cause. The relapse into post-modern camouflage revealed Heidegger's prescience: "What is constant in objects produced merely for consumption is their false surface." In the final analysis architecture must be judged against measures of integrity at technical and expressive levels.

A cursory study of different discipline areas which contribute to the study of architecture reveals each as having its own knowledge patterns. Understanding in any intellectual domain will be determined by its inherent structure. Four examples illustrate the range:

- In Pure Sciences, *the appropriate outcome is discovery or explanation.*
- In the Humanities, *the appropriate outcome is understanding or interpretation.*
- In Technology, *the appropriate outcomes are products and techniques.*
- In pure Social Sciences, *the appropriate outcome is the formulation or interpretation of complex phenomena.*

Given that architecture raids other disciplines and combines the structural characteristics outlined, the necessity to approach education around architecture with absolute clarity of intent and fully conscious of its unique epistemological complexity is paramount.

3. How should Architecture be taught?

The transformation of Beaux Arts pedagogy to modernism has been accompanied by a surfeit of knowledge which requires considerable sophistication to select and present. We have moved from the neat, prescribed and predictable to the untidy, flexible and open-ended. Attempts to formulate design methods have foundered because the relationship between given knowledge (the curriculum) and the activity design is not one to one. Each designer is driven by a personal value system and carries an inherited baggage of prejudices. The curriculum must feed the design appetite. Because it is not possible to know everything, the programme generates the need for knowledge.

Architecture defies academic classification. It is both Science and Art, since Art reveals what we want and Science tells us how to get it. The central "discipline" of Architecture is not a subject but an activity, design. In so far as design can be taught, the process appears mystical and imprecise. This is the description of a degree course: *"We teach by the project system... Each member of staff chooses a number of projects that he wants to teach... we work in groups of 15-20 students and they opt to do so many projects over their three years. The tutor in charge starts off the project with a lecture or stimulus to try and involve the group in participation...there is a continual give-and-take between staff teaching what they are interested in and the students opting for what they are interested in...we don't make rigid prescriptions...if you have awakened the students' imaginations they will be far keener to acquire know-how than if you hadn't. It comes back to the fact that education, like creation, should be an act of love."* (Wilfrid Mellors) This description should provide comfort to those who claim education around architecture is truly rigorous, because this description is

of the music degree at York University. Liberal education and professionalism are not mutually exclusive.

4. A paradox – how can the conservation of an architecture dedicated to the future be intellectually justified?

In conservation, priorities must be clearly established. The first and paramount question is qualitative – what place in our culture does a work occupy? In *"The Art of Creation"* Arthur Koestler describes the evaluations applied to the work of artists for as long as critical judgments have been consciously expressed: *"The measure of an artist's originality, put in the simplest terms, is the extent to which his selective emphasis deviates from the conventional norm and establishes new standards of relevance. All great innovations which inaugurate a new era, movement or school, consist in sudden shifts of a previously neglected aspect of experience, some blacked-out range of the existing spectrum. The decisive turning points in the history of every art form are discoveries which show the characteristic features already discussed: they uncover what has already been there; they are 'revolutionary', that is destructive and constructive; they compel us to revalue our values and impose a new set of rules on the eternal game."* To that may be added Walter Benjamin's observation that: *"The uniqueness of a work of art is inseparable from its being embedded in the fabric of tradition."*

The second question concerns economic life. Buildings have to pay their way by serving human economic activities. Owners may be unaware, or uninterested in, the historic importance of their property and, given the need to adapt it to new requirements, may readily sacrifice architectural inheritance in the interests of economic viability. The equation is complex and requires value judgments. The attempts to place cultural values, which are eternal, on an ephemeral economic scale is essentially futile. Architects need to take a proactive, advocacy role in making informed proposals for conserving, adapting and maintaining buildings.

The third question concerns authenticity. In the UK there is on-going debate among historians, critics and philosophers con-

cerning the tampering with paintings by restorers. The questions concerning authenticity in architecture are equally apposite. A. A. Gill writes: *"The argument about restoration as opposed to conservation is heated and vicious and can, to an outside viewer, seem pedantic to the point of absurdity. The National Gallery has a reputation for going further than anyone else to restore art to appear as fresh as the day it came off the easel. At the other end of the scale, the Italians tend to rigorously do no more than conserve only the strokes that were definitely painted by the artist. Both dogmas have resulted in terrible things being done to art. Ultimately, all man-made things are finite. Decay is part of the process; however powerful your spectroscope, it is not possible to look at a Renaissance picture through 15th-century eyes. There was a moment when all the previous restoration and varnish had been cleaned off 'The Ambassadors' and it looked as if half the picture had disappeared. But slowly it all came back. The effect was wonderful – but is it Holbein? Does it matter? Is authorship only of interest to historians? Isn't the most important thing the picture? And doesn't it have a right to eternal life on its own? Does it belong to each generation, or to the memory of the hand of the artist? Can it go on having facelifts?"* As an example within our discipline, much of the structure and virtually all visible surfaces of Mendelsohn's pavilion at Bexhill have been modified and the same questions apply as those addressed concerning *"The Ambassadors"*. The effect is wonderful, but is it authentic?

The crucial word is *"redundant"*, for there are two contending interests. A building might become economically redundant, a matter of calculation, or be considered culturally redundant, a matter of qualitative judgment. Architects must acquire skills in the former in order to sustain arguments around the latter, which require a critical and evaluative repertoire to emulate the precision of debate conducted among philosophers. DOCOMOMO exists to promote such precision.

Form throughout history may be revealed as the product of idea celebrated through available means; in other words architecture is the outcome of myth and technology. In judging whether it is modern an added criterion is that posed by

Koestler: does it challenge the status quo? Is it subversive and does it anticipate the future? Any example must be placed within its cultural setting to examine it initially in its own terms, and then to search for the ideals generating form to discover the theory and its productive means. Wittgenstein observed: *"Remember the impression one gets from good architecture that it expresses a thought."* It is for the thought we must search.

5. What might be the components of post-graduate study in the conservation of Modern Architecture?

In conceiving the masters course at the University of Westminster the realisation dawned that there existed no coherent discipline around the conservation of modern architecture. If there is no theory it follows that those who practise it are inventing the discipline at a theoretical and technical level day by day. Academic programmes present the opportunity to structure how history and technology should be presented and instil a coherent approach to inform practice.

The General Aims are:

- to invent, establish and advance the specific area of conservation as a specialist discipline;
- to provide focus for an international network;
- to extend "design creativity" into architectural conservation;
- to broaden working relationships with the professions and specialist contractors.

The course has five study areas, and a field-study trip to relevant sites.

The principal aims of History and Theory studies are:

- to examine the principles of modernism as a series of discrete, regional interpretations of internationally appreciated, commonly shared principles and cultural expressions;

- to discuss philosophies of conservation and the theories which might reconcile original design intentions which were ephemeral, with current professional studies destined to conserve and preserve;
- to explore authenticity and its ramifications.

The aims of Technical Studies include:

- consideration of technology as a creative means for interpreting modernist ideals;
- to study the origins of "borrowed" technology;
- to investigate new creative working relationships between architect and manufacturing and contracting industries.

Specific aims of studies in Legislation are:

- to introduce the legal and financial frameworks governing the constraints and opportunities in the UK and Europe relating to conservation and preservation of modern architecture;
- to study the network of agencies, both voluntary and formal, which oversee conservation work and influence the outcome of proposals.

Practice and Management aims:

- to familiarise students with those particular aspects of professional practice associated with contracts directed towards conservation and restoration;
- to demonstrate the modes of research for extension or transformation of the economic life of buildings.

Thesis – this may take either one of two forms:

- the thesis by dissertation which forms the culmination of a substantial research programme;
- the thesis by project which takes the form of a Case Study.

The aims of the thesis are to enable individual students to demonstrate their understanding of the professional requirements associated with the conservation of works of modern architecture.

6. Summary

- In the 20th Century a dynamic change has spawned new ways of seeing and interpreting the world.
- Architectural education must accommodate: individual intellectual freedom; reconciliation of architecture as a discipline with cultural pluralism; an epistemology to suit its unique ends; critical method.
- Academic conformity continues to delay complete transformation of pedagogy to meet the dynamic reality of modern practice.
- The revisionist version of architectural modernism replaces the "International Style" with a richer, more subtle and inclusive interpretation.
- Conservation theories are in their infancy and reference to the debate around authenticity among historians, critics and philosophers would inform progress.
- Conservation courses must necessarily result from a close partnership between academics and practitioners; the former are best placed to evolve theoretical and historical clarity, the latter have established technical, legal and managerial expertise and can provide valuable case studies.
- DOCOMOMO International has enormous potential to act as generator and support for pedagogic programmes which are poised to contribute a new international dimension to architectural intelligence.

Three hundred years ago, less than a decade before the Académie Royale opened in 1671, Blaise Pascal defined our purpose: *"The past and the present are our means, the future alone our end."*

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Learning Architecture through MoMo Rehabilitation Studies

The background

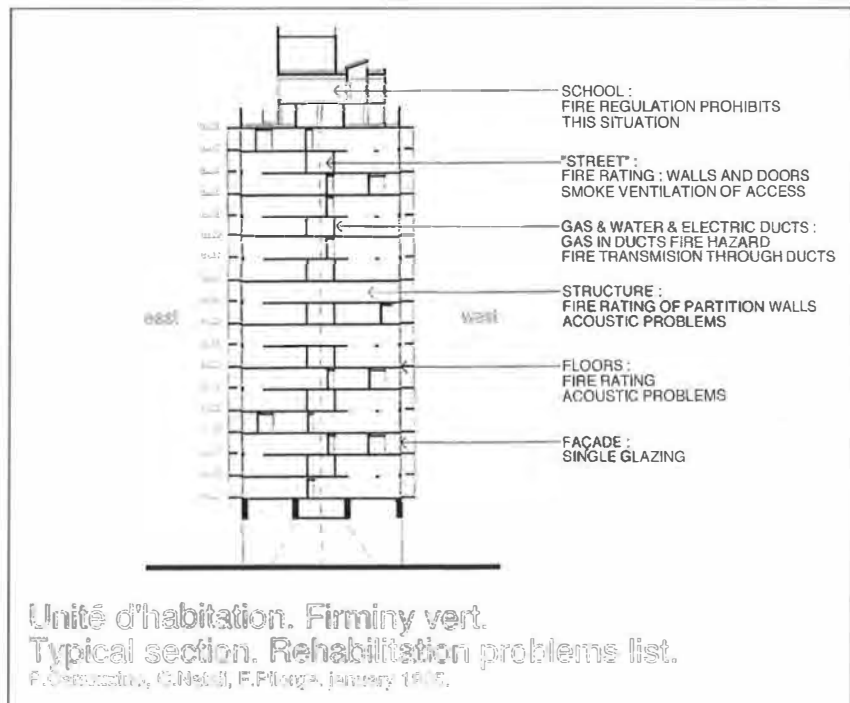
A group of about 7 architectural students have had close contacts with several inhabitants of Le Corbusier's Unité d'Habitation in Firminy (1959-1967). The northern half of this big slab, which is the largest of the Unités d'Habitation in terms of the number of flats (more than 400) had remained empty for many years, and still is in a very sorry state due to frost action and a complete lack of maintenance. There was serious talk of demolishing the whole building. Under pressure from the public of Corbaficionados, the landlord (Firminy's public housing office) had decided to abandon these plans, but continued to ignore demands for the reoccupation of the empty parts and general upgrading of the whole. Only recently was it decided to move to a more advanced stage of rehabilitation studies and maybe ultimately proceed with the building works. It was in the context of the landlord's refusal to consider rehabilitation that the students decided to try and help the residents' association. To do this, they asked to be enrolled in our 4th-year course which is dedicated to learning building technology and detailing, by working on MoMo buildings. The course is not directly concerned with the actual

study of rehabilitation, although it will give the student many insights into the problems involved. Our reason for avoiding a straightforward rehabilitation course in the general curriculum is that we feel it would demand an excessive amount of investment in time and also require numerous visits to site, incompatible with the limitations of full-time studies. We also feel that rehabilitation know-how can only be built on a sound basis of already acquired knowledge and experience of building science, technology and detailing, which our students rarely possess. Despite these reservations we accepted their enrolment because we felt they were very enthusiastic and ready to invest a lot of sustained effort.

The work

The work started with a patient reconnaissance job: getting to know the building through the study of documents and on-site exploration and measurement. There followed the study of the empty North Part of the building, where the students established their headquarters. Then they tackled the question of generally upgrading fire safety, which is particularly difficult and presents something of a moral dilemma. According to today's French legislation (which is particularly stringent) a building of that size would be equipped with a sophisticated smoke ventilation system and all its

elements would possess a very high fire rating. While it is possible to introduce minor improvements, the cost of satisfying all its aspects are prohibitive and not strictly required by the law. Thermal and acoustic problems were also studied. The former presents no major problem because of the very low facade to depth ratio of the flats. To improve thermal comfort and reduce the risk of condensation it would be enough, and fairly straightforward, to install double instead of single glazing in the very generous wooden joinery, and to improve ventilation while reducing heat loss through it. The acoustic problem is more difficult. The floor thickness being 0.14m and the party cross-walls only 0.16m, both air-borne and impact noise insulation are well below today's standards. The typical Modur floor-to-ceiling height (2.26m minus 20mm of rendering) makes it difficult to add more than about 40mm in thickness to the floor, but this should provide a reasonable improvement, and is an opportunity to improve the floor's fire rating. It is fairly easy to improve the insulation from elevator noise, as well as floor impact noise emanating from the access "streets". The concrete walls, on either side of the access "streets", are only 0.11m thick. This could also do with upgrading. But the real cause of worry here is the entrance door and the adjoining duct cladding, both in timber

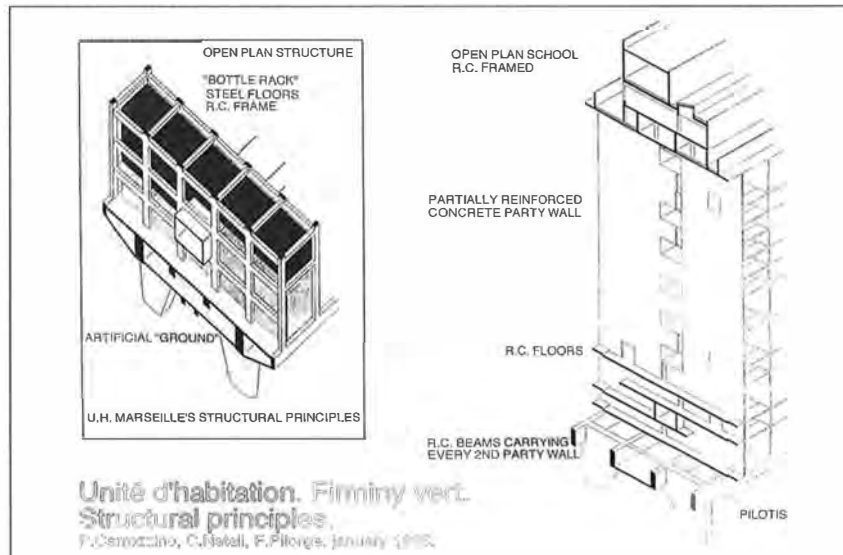


Typical section. Rehabilitation problems list. January 1995, P. Carrozzino, C. Natali, F. Pilorgé.

and constituting a complete architectural ensemble, 2.24m high. This ensemble is unsatisfactory both acoustically and in its fire rating. At the same time this is such a typical Corbusean element that its replacement would have to be done with utmost care and sensitivity. The main points of this analysis are summarised in Fig. 1. From the historian's point of view the building

We do not know whether this was decided at the design stage, or was rather the result of a series of late decisions while the work on site was in progress. While studying the building, the students collated all the information on flat types, and represented it in a series of drawings which show clearly the baffling variety and the complexity of the assemblage of the Unité of Firminy.

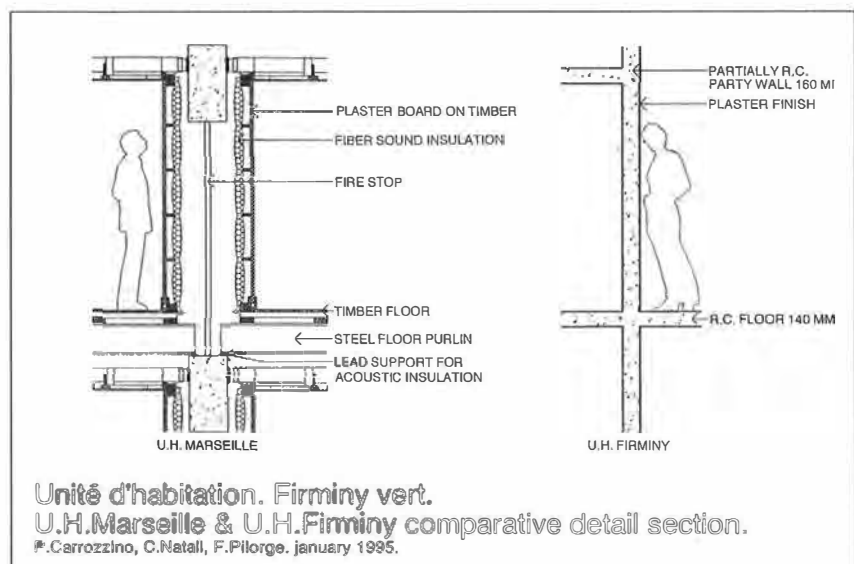
of thought went into systematising the "twinning" potential of flats and the resulting structural modifications, the aim being to establish a set of rules allowing these operations to be conducted piecemeal, at any time in the future, without impairing the structural safety of the building. The most advantageous connection turned out to be the joining of a double-height space to either another double-height space or to a single-height space, because this would create the potential of bigger living rooms and kitchens or kitchen-dining spaces), or an extra bedroom and bathroom (see Fig. 4). Nevertheless, connecting some single-height spaces might be of interest at times, but there is no need to assume both type connections in the same flat area. The study of archives showed that the original calculations of the wind-bracing cross-walls was rather simplistic and that, in some cases, the walls as built (or as modified since?) do not correspond at all to the original hypotheses and may in fact have a lower factor of safety than intended. The calculations assume that the cross-walls which do not bear on pilotis carry their own portion of wind load. Given the rigidity of the floors acting as horizontal diaphragms and the flexibility of the 4 bottom beams (see Fig. 2) this hypothesis seems particularly questionable. It was therefore decided to test two cross-walls for various combinations of loads, including the case of wind load being transferred from the beam-supported wall to the pilotis-supported



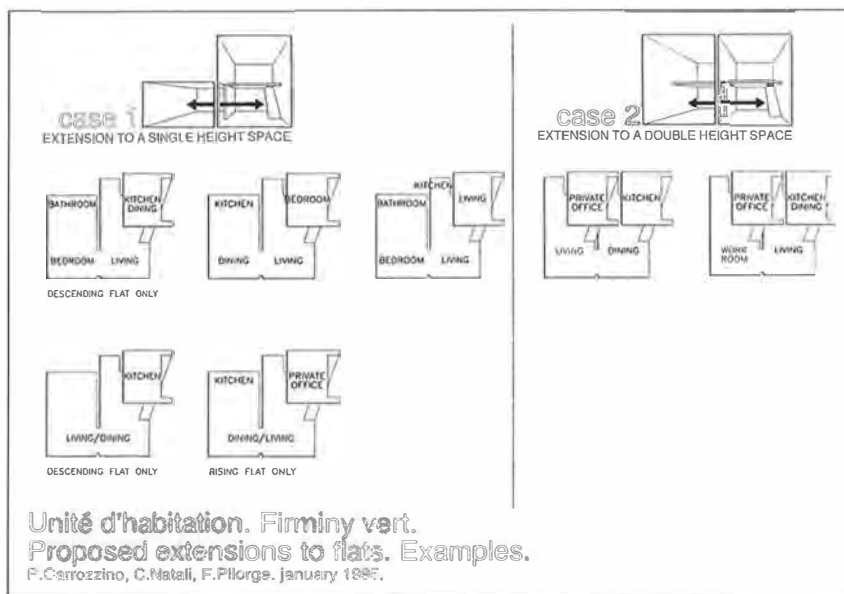
Firminy vert. Structural principles. January 1995, P. Carozzino, C. Natali, F. Pilorge.

turns out to embody a fairly early stage in the evolution of the high-rise building slab, and it is very far from satisfying today's standards in structural analysis, fire safety, energy saving, and acoustic quality. It also is one of the prototypes of what has since become the main French building method in housing: the lightly reinforced concrete load-bearing cross-wall system, poured in situ. The typical modern concept, which Le Corbusier shared, of allotting the various functions to distinct elements (the load-bearing frame, the lightweight partitions) was abandoned in favour of the older principle of multifunctional elements: the masonry wall (see Figs. 2 and 3). The students' advocacy work has shown that many inhabitants liked the place but found the typical Corbusean "tunnel" flat too confining. The inhabitants also realised that there was a way of uniting elements of adjacent flats into one (by piercing openings in the concrete cross-walls) to achieve what to them would be a more pleasant habitat, which better suits late 20th-century space standards. Indeed, some flats had been connected originally (see Figs. 1 and 2).

There are in fact 32 different types of flat, in a total of 414. The whole problem may be interpreted as arising from the fact that one of the "five points of modern architecture" – the open plan or "plan libre" – was abandoned in the Unités d'Habitation following the first one built in Marseille. A lot



U.H. Marseille & U.H. Firminy comparative detail section. January 1995, P. Carozzino, C. Natali, F. Pilorge.



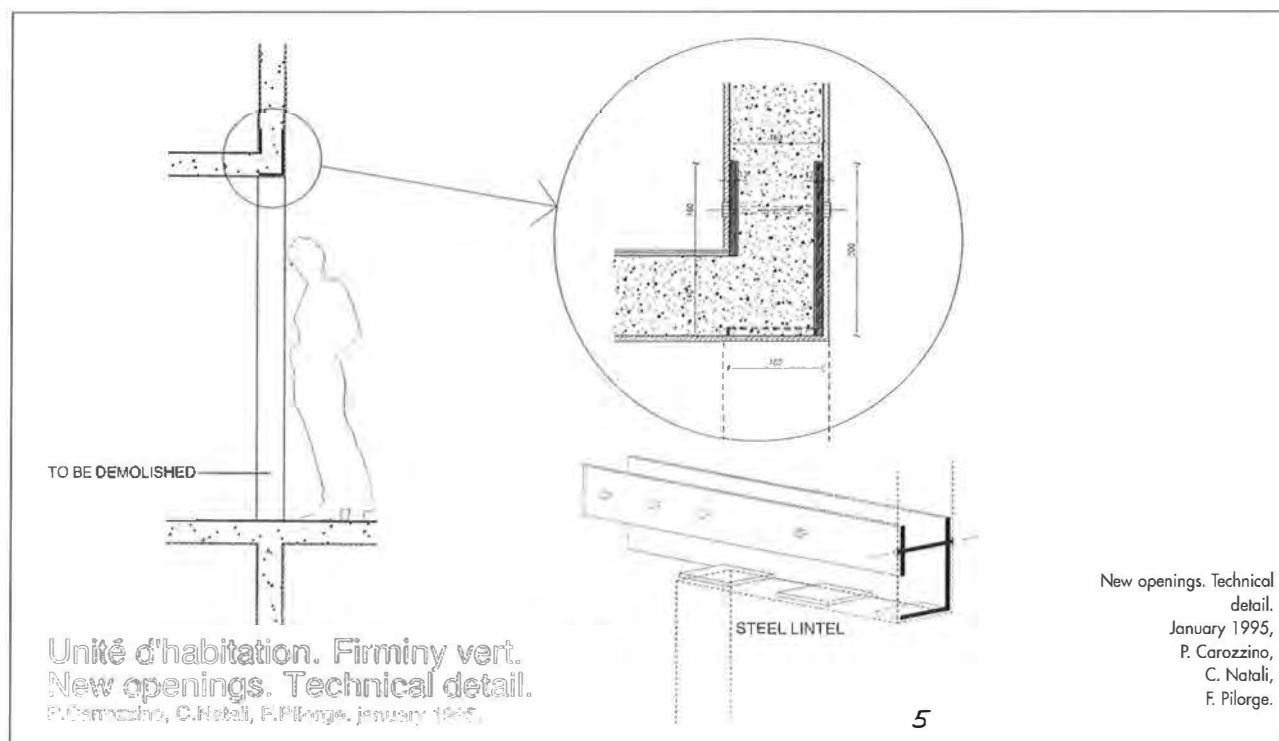
Proposed extensions to flats. Examples. January 1995, P. Carozzino, C. Natali, F. Pilorge.

wall. The two tested walls represent extreme cases in terms of loading and number of openings. They were tested first with only existing openings and then with a hypothesis of future openings. The method used was finite elements elastic analysis. Submitting these cross-walls to computer analysis enabled us to establish limits to the potential for "twinning" of flats. The results of this analysis were reassuring because they showed that, although some areas would be very highly stressed

in tension, the average stresses in general would stay within acceptable limits. The high tensile stresses were confined to areas closely surrounding superimposed openings in the lower part of the walls, near the "groin", between the pilotis. In several cases they appear around openings which already exist today and which were presumably reinforced at the time of construction. It is obvious that the appearance of new areas of high tensile stresses in the concrete cannot be envisaged without ver-

ifying that the concrete is sufficiently reinforced, and as this is very unlikely, some means of adding reinforcement must be found. It is possible now to establish a set of rules of conduct for the landlord to adopt whenever new openings are envisaged:

1. Openings can be made without further check as long as they are not superimposed and stay separated from each other and from the edge by about 2.4m. A technique which can be used for piercing is shown on Fig. 5.
2. Superimposed openings can be made above second street level provided analysis is made with a finer mesh around the openings in question, to gauge the amount of supplementary reinforcement needed. This reinforcement can take the form of a steel-plate surround, bolted to the 4 sides of the openings in a similar fashion to the lintel shown in Fig. 5.
3. Superimposed openings in the lower zone of "streets" one and two should be avoided. If however they are deemed necessary, a thorough check of existing reinforcement should be made, and various ways of adding reinforcement should be studied after the fine mesh analysis has been performed. The existing computer modelisation established by the students can serve the landlord's need for future analyses.



Authenticity

It is necessary to raise the question of authenticity at this point, because the question was raised not only in connection with the students' work, but also in the context of rehabilitation work on other Unités d'Habitation. What becomes of such a characteristic element of the "oeuvre" as the shape of the flat? Contrary to Walter Benjamin's predictions an increasing aura clings to the building despite the initial idea of reproducibility, the "grandeur conforme". It is, after all, this aura which is partially responsible for the affection the building arouses. Research done in parallel with the rehabilitation of the Unité in Rezé near Nantes, in 1988, showed that quite a few of the inhabitants were worried that the style of Le Corbusier might be betrayed. On the other hand, many tenants were disappointed with the rehabilitation because of no improvement in space standards, despite a rise in the rent. In the Unité of Briey la Forêt people were able to buy particularly spacious and well-lit flats wherever flats had been joined. One can try to defend the joining of flats in Firminy in several ways. On the one hand, the building showed from the beginning numerous departures from the "canonical" Corb type of flat. These departures vindicate in a way Le Corbusier's own principle of the open plan which he reluctantly abandoned, after Marseille, under pressure from the French context. Also, Le Corbusier considered the various Unités as a continual Social Experiment, which means that he was open to the idea that experience might show that some aspects of his projects may need correcting with time. On the other hand, Le Corbusier had conceived the building as a very small "town" with its streets, shops, schools and recreation areas. Towns have a way of evolving within a stable structure. Would one be doing injustice to Le Corbusier's "town" by allowing it to explore its potential for evolution?

MoMo and its rehabilitation in school

It is beyond doubt that this work had considerable educational value for the students involved in it. The question to be asked, however, is whether one can deduce from their experience any principles and guidelines to be used in a general curriculum of Architecture, not necessarily

a special course in MoMo rehabilitation. At the centre of architectural education, in most schools, is the design activity (or "project" activity, in some languages) which takes place in a sort of workshop which imitates to some extent the architectural practice. This activity, being highly personalised, tends to fall into two traps. Firstly, it will suffer from the delusion of creativity, while it actually hides its sources, as if something really new could every time come out of every student's work. Secondly, having hidden its sources it will all too easily succumb to the lure of fashion and the heroes of the day. If Architecture is to be a craft with intellectual ambitions these tendencies must be checked by creating a frame of reference, and not necessarily of reverence. Such a frame of reference will put our activities into perspective and challenge them by helping to ask, and maybe partially answer, anguished questions which are usually at the root of intellectual pursuits: where do we come from, what happened then and what is happening to us now, and what are we actually trying to do? The *Ecole des Beaux Arts* conducted its continuing debate on the basis of a set of various classical references. Ours has to establish a different set which likewise would be at the root of our own ways of thinking and acting and yet far enough in time to give us the freedom of contemplation and criticism (this does not exclude possible excursions into the further past). The architecture of the first half of the century seems to possess precisely these qualities. Apart from the central design activities, Schools of Architecture also teach other skills, which are of more or less immediate use in the professional world. They may not admit it so readily these days because of academic vanity. Indeed, the craft element of the curriculum ought to be taught in a reflective and critical way, totally different from the hurried instruction of the "architect's office" know-how. The design studio, being so involved in spatial design problems, is far from suited to learning the craft side which may involve assessing structural solutions, detailing, understanding and applying fire safety regulations, taking into account energy conservation etc. But work which involves existing buildings, which are part of our frame of reference, makes this type of learning much more feasible.

Because there is no need to design a whole building there is leisure and opportunity to tackle, in a concrete, exciting and relevant situation, matters which are otherwise taught in the abstraction of the lecture hall. Quite a number of formulae can be invented to create opportunities for such a way of studying. If we look briefly at the various phases of the work presented above, we shall be able to enumerate almost every important aspect of the complex but elusive discipline we call architecture:

- mastering and understanding complex spatial arrangements.
- understanding in depth certain structural and constructional aspects of a building type.
- understanding the limitations they impose on spatial arrangements.
- getting to know materials and assembly details, their rationale, their pathology and ageing.
- getting insight into various aspects of building science through the study of structure, energy and acoustics.
- situating a building in a historic perspective from the technical and architectural point of view.
- getting insight of a sociological type into the users' way of seeing and reacting.
- developing a general capacity for the critical appraisal of buildings. Anyone familiar with the rather fraught atmosphere of the design (or "project") studio will admit that it is difficult, or nigh impossible, to achieve all of this there. Anyone familiar with the normal teaching of "neighbouring" disciplines knows that their current methods are not adapted to the task either.

The use of precedent in art and education

It may be worthwhile to put the pedagogical ideas expounded above in a wider context. Here we can only sketch briefly a few thoughts concerning a subject which deserves thorough investigation. In France

the rising importance of "originality" in art is the result, amongst other reasons, of the increasing "privatisation" of the art market which forces the artists of the 19th Century to accentuate their differences in order to be commercially identifiable, while creating alliances with other artists and "pressure groups" amongst critics and literati. This development probably came late to architecture. Now that it is catching up with the other visual arts, the consequences need to be better understood. At all levels, and in many other domains of activity, "creativity" and "originality" were for decades extolled both as method and aim of a modern and open society. While "creativity" seems a vague psychological concept, measured against the individual's own development, "originality", ought to have a claim to objectivity, and be open to questioning. To say that this concept is tied up with the expansion of capitalism, with Rousseau's view of man or with the romantic movement is an all too easy truism with which we shall have to content ourselves here. The point important to us, however, is that the concept of originality has been questioned for some time. Roland Barthes, for instance, dedicated some of his work to questioning originality in literature, while Rosalind Krauss extended this questioning to the domain of the visual arts. At school, the fact that the process of learning is largely imitative is obscured by the presence of originality and spontaneity. The place of translation in the curriculum is an interesting instance of this attitude. The decline in the study of classical languages has meant the quasi disappearance of the

practice of translation, through which generations of pupils learned to master their own language. But here also we can find voices to question current methods. To quote an early text of Ezra Pound: "one finds that old masters of painting recommend to their pupils that they begin by copying masterwork and proceed to their own composition... Translation is likewise good training, if you find that your original 'wobbles' when you try to rewrite it. The meaning of the poem to be translated can not 'wobble....'. Much more recently the linguist Jean-René Ladmiral said: "School translation may not be the best way to learn how to translate, but it is certainly an excellent way to learn the techniques of expression... in one word we should rehabilitate translation, and renew its pedagogy". Similar ideas can be found amongst teachers of musical composition. Here are some thoughts culled from a recent publication: "the word pastiche is often used in the domain of teaching musical composition. It is pejorative and evokes mockery and the mannerisms of a composer. One should rather talk of exercise 'in style'. But what should such an exercise be? ... we should prefer invention linked to the repertoire, arrangements, practical and concrete tasks." In another article in the same publication the various procedures used by the authors in imitative learning were described in detail. They include parody, arrangement and improvisation, the last implying adaptation of existing works. As a result of our doubts about originality, arrangement, transcription, paraphrase and variation in music and translation and

adaptation in literature are slowly coming into their own as proper forms of creation and, dare we say, originality. "Beginners imitate, masters steal" is one way to express this new state of mind, which is still waiting to penetrate our schools of architecture.

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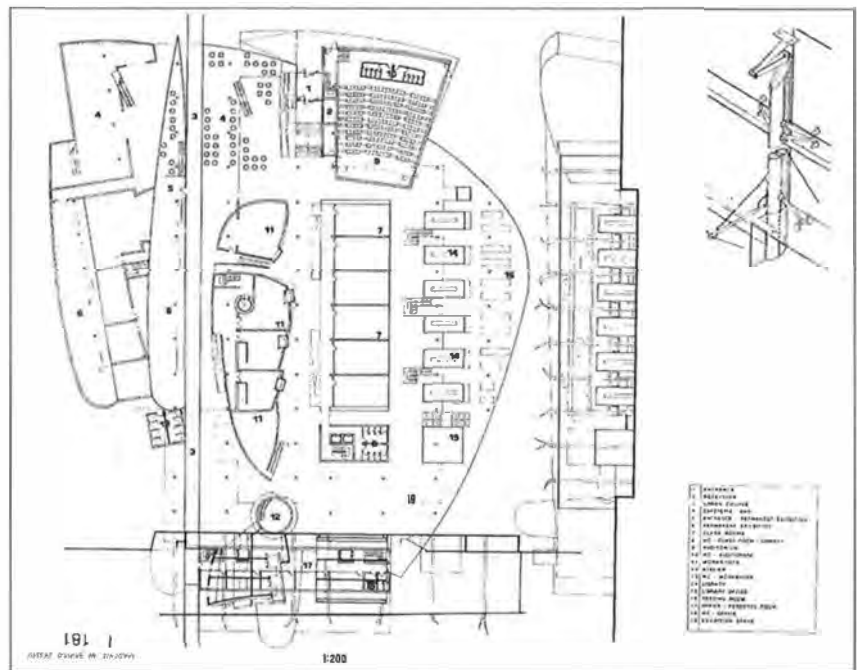
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From Virtual Space to the Apple Tree Projects of European Architecture Students for the "Future Bauhaus" Competition

European culture was born in the south-eastern parts of the Ancient World, on the shores of Hellas. It then developed as a two-centered system under the twin influences of Greece and Rome. Following the division of the Roman empire and the spread of Christianity throughout Europe, the eastern Byzantine and the Roman churches became the twin pillars of the European world view. The Orthodox faith spread in the Slavonic regions north-eastwards where it preserved the Byzantine Christian-European culture even through 500 years of Ottoman rule. With the barbaric destruction of Christian culture in the south-eastern parts of the Ancient World, Roman civilization remained the predominant influence on European culture in western Europe. During the 18th and 19th Centuries, when Europe's old order disintegrated and the Turkish yoke in the south-east was shaken off, the two realms of culture were able to join once again.

After the World War I, social Utopia in Eastern Europe escalated into Utopian obsessiveness while the West was dominated by Fascist and National Socialist ideals. Then after the World War II, Europe was divided by the Iron Curtain.



Now, in a re-united Europe which stretches from the Atlantic to the Urals, the traditions of the two-centered system of our cultural heritage is the most important precondition for the people of the East and the West to join together again on a social, political, cultural and emotional level.

The launching of "Future Bauhaus", the competition for architecture students throughout the whole of Europe, represented a small step towards the fulfillment of this hope for unity.

At the beginning of this century, an international movement for the renewal of architecture arose in the European continent, a phenomenon without parallel in the history of building. During the first half of the 20th Century it involved most European countries and went on to spread throughout the world. Its main driving force was the emergence of architectural movements with names such as "constructivism", "new building", "modern architecture", "functionalism" and so on, representing a new architecture. Comparing the Bauhaus in Weimar with VHUTEMAS (Higher State Art and Craft Studies) in Moscow, the common roots of modern European architecture become clearly visible. Both schools were places of research and experiment, rejecting traditional academic training. Gropius merged the Academy of Fine Arts with the School of Arts and Crafts, while in Moscow the

"Stroganov" Academy of Arts and Crafts and the School for Art and Architecture was combined. At both schools students were taught in "workshops" under the guidance of their masters while at the same time actually making objects for interior use. Hannes Meyer proclaimed the union of all artists in the name of harmony in society, while in Moscow the founding of New Future for the common purpose of all architects, sculptors and artists was announced. In 1920 the close relationship between art, science and manufacture was made the key objective of the new training in Moscow. In Germany in 1928, Gropius declared that the Bauhaus workshops were laboratories of industrial production. In 1933 the Bauhaus was closed by the Nazis and VHUTEMAS in Moscow was only able to continue under a different name.

This short excursion into the 1920s demonstrates that the Bauhaus was not Europe's only school of new architecture, although it was its most influential. As a result of its international teaching staff and the many foreign students, its new ideas were transported far beyond the walls of the school at Dessau. Herbert Beyer from Austria, Walter Gropius from Germany, Wassily Kandinsky from Russia, Hannes Meyer from Switzerland, László Moholy-Nagy from Hungary and Lyonel Faininger from the United States joined the Bauhaus and, inspired by the idea for the renewal

of architecture, passed it on to their students.

Which of the ideas from the Bauhaus era are still valid today? Which legacies from the architectural training of the Bauhaus will be appropriate for the future? What is it that young people want to carry into the next millenium? What will it be like, the chosen building for the study of architecture which the participants in the competition are about to create, and what are their views on the future of architectural training?

The focus of the competition is a school building, the *Akademie am Bauhaus* in Dessau. In parallel with the structural design of the building, the student competitors have also developed their ideas for the

virtual Bauhaus is in keeping with our present age of total information. The decade is characterized by global communications: the telephone, the fax machine, the computer, the video recorder, the hologram and cyberspace – all these devices create virtual space. They will steer our world towards immaterial virtuality”, Mrs Meadows predicted.

Needless to say the author of this scheme takes no account of the location. To her, the site is merely the vehicle for expressing her vision for the future, which is tied to no particular place. Are things really this bad, or is this just the black and white extreme of youth?

A poetic – intellectual variant of a possible virtual development was offered by

through the base which enable the users to carry out intellectual work in virtual space; and dwelling cubes which are interconnected with the windowless concrete cybercubes.

What is it that made Gregor Langenbrink develop such an architectonic vision of horror reminiscent of Kafka? The following can be found in his explanatory notes: “Tendencies: supposedly out of the realm of the successful white male.

1. Separation of body and intellect
2. Reducing the body and its functions to “bits”
3. Hypnosis of the intellect in virtual cloud
4. Total intellectualization
5. Loss of love
6. Negation of the body
7. Intellectual life in projection on to a “paradise” to come

Objective: eternal life”

Having been a PC user all his life, the human being continues to live as an idea inside the machine. He becomes immortal as the machine, self-sufficient in energy, continuing to compute eternally. After his physical death, the user's body is walled up in the cybercube. A field of urns with a technical-intellectual eternity is created.

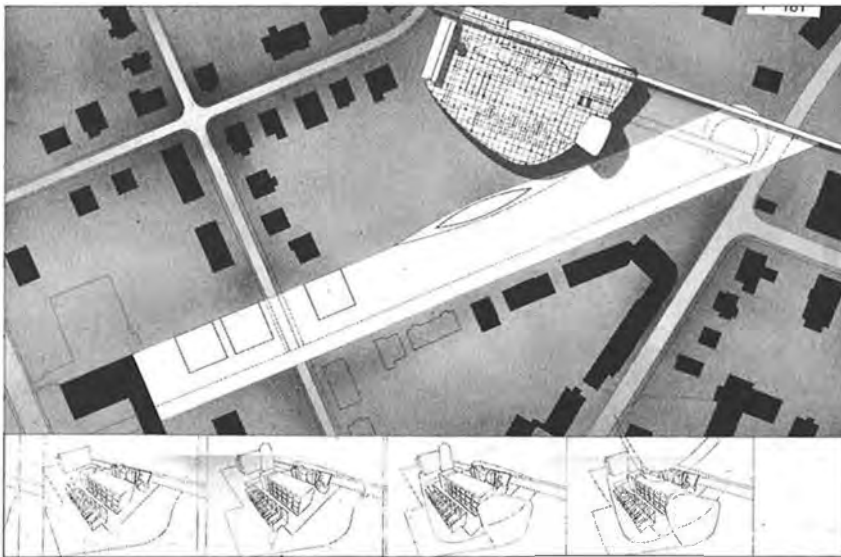
I would like to leave this vision without commenting on it, while remaining hopeful that our young colleague's intention is but to give us a warning.

This brings us to the next follower of virtuality – Marc Schnabel from Berlin. His elaborations begin as follows:

“The Bauhaus on its way into the Future. Dessau on its way to urban renewal. Architecture on its way to virtuality.”

In contrast with the projects presented so far, here the human physique is as important a design factor as computer graphics. Human sensitivity is the starting point for Marc Schnabel's reflections. As he sees it, the Akademie is a joint between conflicting interests, a symbol that is “much like a kneecap – creating intellectual motion and testing reflexes.” He places his “time bubble between tradition and future” on the site and establishes an axis to the railway station.

Today, more and more designers are looking for their inspiration in the curved



constituents of an architectural training. This article is devoted to these two aspects: the inclusion of a school building in the context of an existing structure, and the ideas thus generated for architectural training. The order in which I present the contributions, “From Virtual Space to the Apple Tree”, is intended to express my personal views on the problems facing us today.

The contribution that the jury found most controversial was submitted by the English student Flona Meadows from Paris La Vilette. Her proposal was a “Virtual Bauhaus” in Dessau as the starting point for an international system of Virtual Bauhaus units – a dematerialized World School of Architecture. “From the Bauhaus School to the dematerialized Bauhaus school, the vital step must be taken. The

Gregor Langenbrink from Graz who created his project at the University of Karlsruhe. He placed his grove of Academe at right angles to the tracks of the railway station, in order to express the confrontation “between conventional physical and technical movements in the virtual cloud”. Perhaps another reference to the context? However, this is where the author's efforts to harmonize his building with the existing one ended, because “in the view of the user of the grove, the town serves physical gratification. Historic town centres, along with their functions, become museums or theme parks with a tendency to rot, because they have become excessively expensive.” The grove itself has a multiple structure, it consists of a base providing access: cybercubes fitted with personal computers (PC), connected

lines of the human body. Anthropomorphic design is also a key element in the contribution of Anne Krusemark from Braunschweig, where two structural lines "merge in one joint". Adopting the direction of the Bauhausstrasse and that of the axis of the station indicates a contextual effort on her part. Her concept of the Akademie is very democratic – "a place for those with an interest, but not an elitist school." The language of design was created "following the image of moving muscles surrounding static bones".

In contrast with these organic designs are abstract ones which are not bound by prototypes from the animal or plant kingdoms.

and "creates a place" where "the joy of being" is expressed. "The age of glass is a time of transparency, of carefree existences. Our work wants to relate a simple story of things that accompany our everyday lives", the students say. This work presents town planning and draft ideas which reflect a very sympathetic "attitude toward life" on the part of the authors. The organically curved, completely dematerialized house of glass contains a superb composition of different building structures. The continuous outer frame is the most prominent feature of the proposal and a continuous footpath defines the relationship with the railway station. The proposal is dominated by an interesting arrangement of communicating

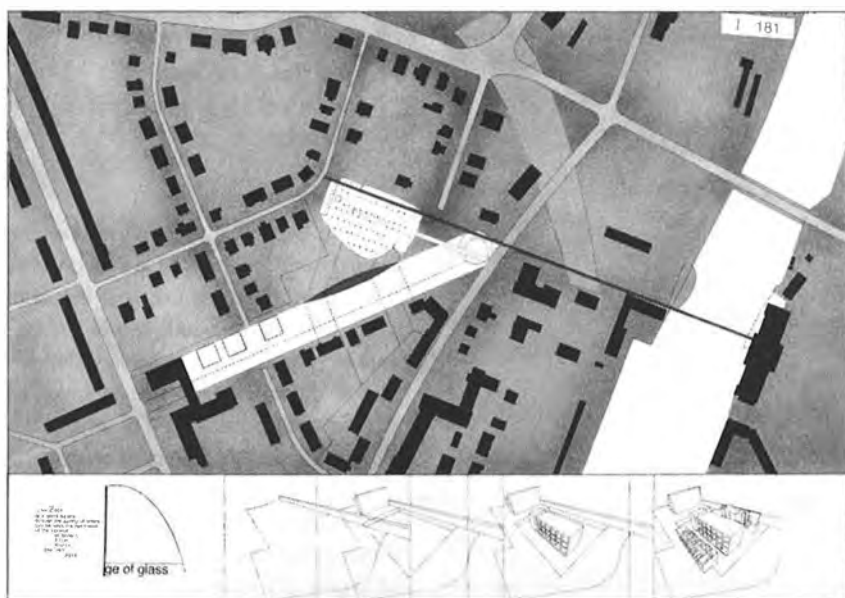
distinguished by informal divisions and openings. The simple pattern of the structural system is faced by the antithesis of the organic lines of the space-enclosing elements.

The design of the next set of contributions is characterized by rectangularity and clearly formulated geometric objects. The work of Anja Schmidt and Guido Funke-Kaiser from Cologne consists of a glass cube which, quite deliberately, has no established relationship with the building but, instead, follows the four points of the compass, thus standing out above the urban structure. The designers idea is to create a place where "architecture is not taught by conventional means but where participants are given the opportunity of working out solutions to contemporary topics." The shape of a cube was chosen because it combines in itself "flexibility and a well balanced complex system".

The next glass cube does not follow the points of the compass. Beate Rogowski from Kassel has set out to organize the building structures in the context of the existing buildings. "Gaps in residential areas are closed by residential buildings. the Akademie itself forms a new central element in the district", and it is surrounded by a park. Her ideas about teaching at the Akademie are summarized as follows: "All those teaching at the Akademie should work together, with no dividing lines between the different faculties. This way, interdisciplinary, flexible and innovative study will be possible. The Akademie Should also be accessible to interested outsiders for the purposes of further education and research."

The contribution from Rosario Gonzales, Luisa Fernandes and Dolores Bueno Lena from Valladolid dissolves the square into rectangular structural units. The students have achieved maximum flexibility by means of clear spatial structuring. The strong link with the colour green, the oblong structure along the Bauhausstrasse, and the gradual dissolving of the structural body into the park all highlight the authors intention of finding a contextual solution for their geometric structure.

The entry from Karola Sahi, University for Technology in Tampere, combines clear geometry with a skilful utilization of



For example, E. S. Gunning from London put the geometrically formulated structure of the Bauhaus face to face with a building site called "baufe", which he populated with organic forms. The shapes of these objects were the result of "overlapping force fields". This contribution combines abstract organic design with spatial geometry in a functional, constructive but nonetheless poetic structure.

Now we leave the realm of virtuality and the grove of the Academe to turn to a kind of architecture which embodies human activity brimming with vitality. the proposal of Sabrina Rosano and Lion Shabtay from Florence discusses this symbolic quality organically and cubically

routes combined with good light distribution which achieve the organization of functional space divisions in a professional and impressive manner. The graphic rendering is consistent with a refreshing, artistic quality.

Marrying orthogonal systems with curved lines is the aim of the next two contributions from Bordeaux, where rectangularity has been put into an effective relationship with the shapes of the circle and the ellipse. Bruno Dourmaud and Cecile Gourceaud have achieved a balanced geometric composition by superimposing the supporting structure and the functional structure. The tree supports carry a climatic cover. Laurent Ratabouc and Pierre Enjabal have created a dynamic interior which is

all contextual conditions. With the structure in the northern part of the sites she has adopted the axis of the railroad station. By orientating the generous open interior space toward the Bauhausstrasse, the whole new building is combined with the Gropius Building to form a uniform teaching complex. The considerate handling of scale integrates the Akademie am Bauhaus with the smaller buildings. Precise spatial geometry in the context of the existing buildings provides an aesthetic spatial ambience.

The town planning approach of Andre Habermann from Detmold takes the existing course of the road into consideration. His arrangement of the new buildings integrates the historic Bauhaus into the town's structure and develops the Seminarplatz as a link with the railway station. "The library is located adjacent to the Akademie building. It represents symbolically as well as factually the collective knowledge of this institution of learning and research. It should not be buried within, but should open itself toward people who are interested."

S. Guillemoz and L. Dacht from Paris Villemin presented a project that established a clear plan based on relationships with the existing buildings, with one structure following the line of the Bauhausstrasse and the other that of the Kleiststrasse. Between the two, a covered square has been created which at the same time represents a continuation of the Seminarplatz. Sections, facades and model photography describe a project that in well thought-out and geared towards working easily and effectively.

The next set of projects clearly expresses the pluralism of today's language of design. These contributions share their authors' effort to integrate their building projects according to a given context.

The work of Raul Huarte, Eduardo Lopez, Graciela Martinez, Alejandro Lazcano, Jose Quinteiro and Modesto Sienes from Navarra conveys dynamic freedom in the spacing of the structural body as well as lightness and expressive power.

The Romanian student R. Visinescu, whose contribution came from Nottingham

in England, has combined sophisticated high-tech detail with the dynamics of a contextually related town planning ambience. The amphitheatre-like courtyard opens towards Seminarplatz and Bauhausstrasse. The connection with the railway station is provided by the structure located along the northern border of the site.

In their explanatory notes, Andrea Dragoni and Enrico Chirigu from the University of Florence write "The building project we are presenting here sees the Akademie am Bauhaus in Dessau as an important opportunity to help create a new town centre." The Seminarplatz designed by these participants has a very good feel for urban space. A clear-cut ground plan and well-balanced views bring out the abilities of its authors.

In the dynamic composition of N. Guillgamo Costa and Angel Javier de Gregorro from Madrid, two objects erupt from the site: one made of glass, the other of metal. They have placed the library and the lecture hall at the point of intersection of the "bridge built across the terrain" and the metal building.

The above set of student projects reveal various approaches to the idea of placing new buildings in the context of the existing ones. The inspired link with existing buildings is not tied to any particular architectural language or design. Although not a new topic, building in context is the key to contemporary design. It is therefore encouraging to note that the majority of participants made this problem the object of their intense study.

The following set of projects is distinguished by a markedly reduced involvement with the existing buildings. Ramus Kristian Holm from Aarhus in Denmark and Dieter Spath from Graz in Austria propose minimal invention by remodelling and extending the Jugendstil Building for the Future Akademie. The simply-designed structure of the annexe is connected with the main building by a walkway.

Jan Kucza Kuczynski from Warsaw achieves maximum expressiveness by placing the Akademieplatz on top of the glass roof of his design for the new Akademie am Bauhaus. He writes: "There

is no shape. Rather, the character of the square is characterized by the activities."

Juha Kaakko from Finland came up with a similar idea. In his simple but very skilful formulation of the individual structural bodies, clear geometric objects are suspended above a glass floor.

The next project renounces architecture in favour of greening – planting rather than building. The project represents solid and glass cubes in a park full of trees. "I believe that people need nature more and more," writes Anna Bialska from the University of Technology in Warsaw. On the site, she plants a grove with trees in the shade of which students may rest or be creative.

This almost ends my journey from the grove of Akademie with its walled-in bodies and the eternally working PCs to the green lawn on the site of the new Akademie am Bauhaus in Dessau. As a final project, I would like to present the work of Sara Martinez, Alejandro Cano, Felix Pelaez, Alfredo Frison and Gonzalo Rodriguez from the University of Navarra. What makes their contribution special to me is their attitude, which follows the great Bauhaus tradition. We are mistaken if we believe we can conquer nature. In reality, all we do is destroy our relationship with her every day. Smug architecture and vanity rendered in buildings are not the answer to the ecological, economical, social and ethical problems of our time. The Spanish students take us into a changed world of consciousness, where the modesty of building elements is combined with "externally sensitive care for the environment". The architect's responsibility for our endangered civilization is the central theme of this project.

I would like to close my article "From Virtual Space to the Apple Tree" with a quotation from the explanatory notes of the English student Charles Oades from Canterbury:

"The training can best be compared to a fruit tree, e.g. an apple tree. The apple tree is the training institution. The tree's roots have to be embedded in good soil and its buds in sunlight – and there has to be a link between the two. Only under these conditions can the apples ripen."

Panayotis Tournikiotis

National Technical University of Athens,
Faculty of Architecture, Greece

Teaching the Moderns

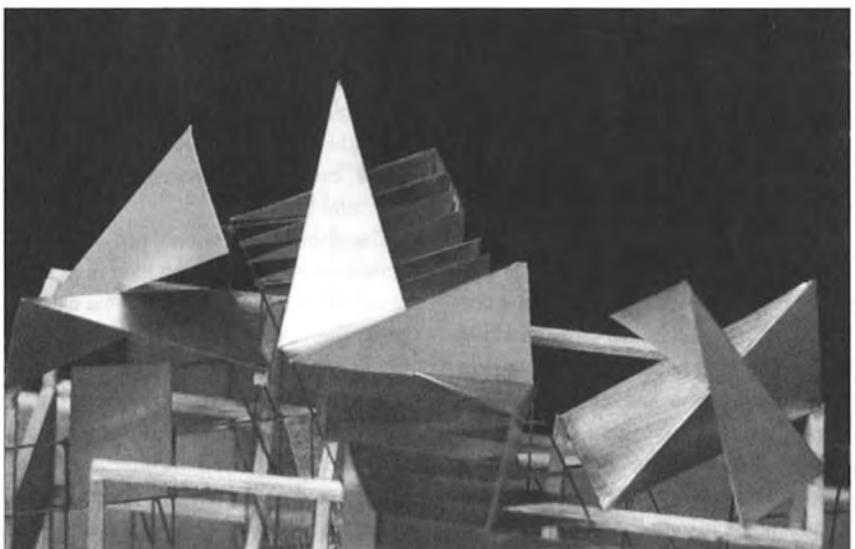
Even in the early years of their training, architects acquire – to a greater or lesser extent – a knowledge of the architecture located in their own countries and of that located in other countries. Sometimes this knowledge comes from personal experience, but more often its sources are the educational process and the information published in books and periodicals. From architecture as a whole – belonging as it does, of necessity, to the past, to history – certain moments, certain projects, certain names stand out, constituting milestones and contributing to the formulation of each architect's personal language. The immaculate conception or *parthenogenesis* which the avant-garde movements of the 20th century have invoked with such ardour has proved to be a chimera. This is not to say that the search for a radically original language is not among the options of every conscientious architect, but rather that even such an innovative inclination presupposes knowledge of the past and transcendence of it: in other words, it requires a relationship with history. We live in a society which is aware of its past and, as a rule, wishes to preserve its memory, even if only in a selective manner.

Starting out from this general line of thinking, an attempt was made to organise a course in the theory of architecture.

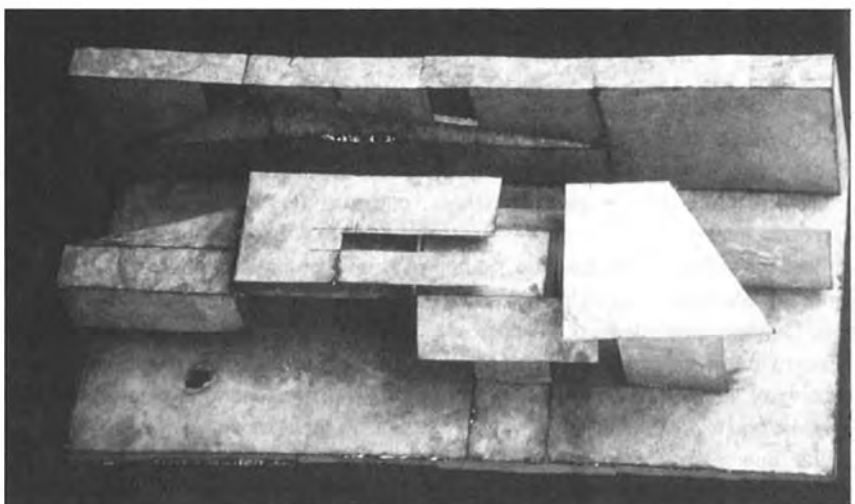
The objective of the course was to explore the architect's media of expression – that is, his language – by means of a critical examination of a spatially and chrono-

logically specific period in modern architecture. The period of reference was deliberately located in the heroic years of the Modern Movement, during the epoch when the movement was persisting in its struggle, in word and deed, to cut itself off from the recent past and construct a completely new world. Of course, the relationship between the moderns and history, with the various lessons to be learned from the past, was usually a controversial one, and the manner in which they chose to sever the roots was sometimes peculiar. Yet their lesson of a rift with the past had a profound impact on later generations, on the architects who studied in the first decades after the War. It may seem strange at first sight today, in an era which accentuates the preservation of memory, to be choosing the Modern Movement as a way

of exploring the conditions for conscious participation of earlier projects in the process by which new works of architecture are designed. Nonetheless, the strategy is clear: the projects of the moderns form part of the continuity of history, and do so in a dialectical and highly instructive manner, relying at the same time on a poetics of construction and culture of a more general nature which continues to govern the background for building today, at least in countries such as Greece, on the periphery of Europe. To be still more specific, the course was based on an in-depth investigation of the French architecture of the period between the Wars. This was the time, and Paris was principally the place, where some of the founders of the Modern Movement were active, including Auguste Perret, Tony Garnier, André Lurçat, Pierre



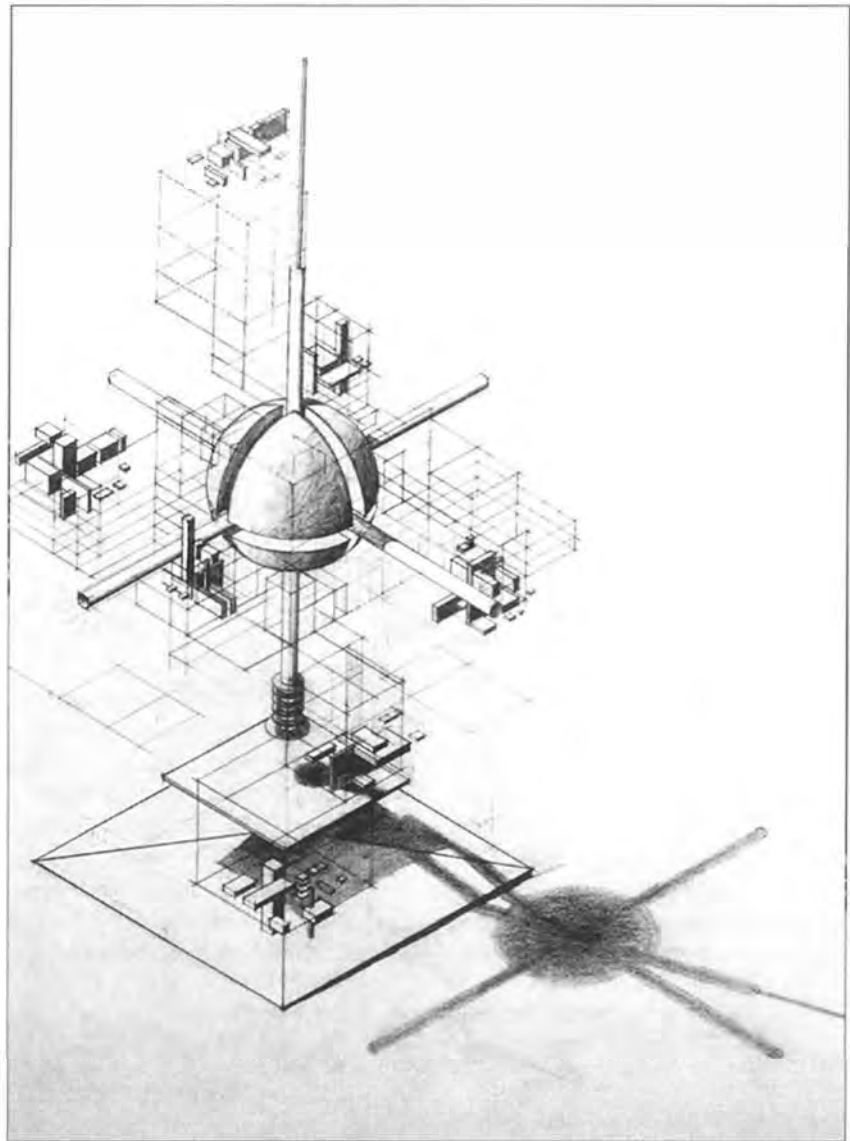
Giorgos Stamatakis: A Parisian house for Konstantin Melnikov.



Panos Nikolaides: A nature house for Le Corbusier.

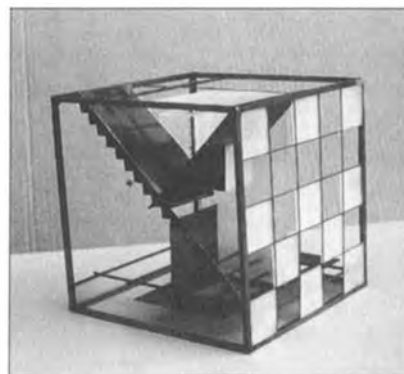
Chareau and Rob Mallet-Stevens. In parallel, a rich theoretical background developed in the works of Borissavlievitch, Ghyka and Valéry, and in the corresponding experimentation of artists (cubism, purism, dadaism, surrealism). Without doubt, however, the most important personality of the period was Le Corbusier, who influenced the theoretical work and constructed projects of all the generations that followed. Teaching consisted of a presentation of the work of these architects, in conjunction with a review of the spirit of the age – that is, of the broader conditions in the cultural environment (the cinema, literature, painting, music and everyday life, within the framework of specific social and economic relations). Our exploration was based on a comparative analysis of a limited set of projects, with the initial objective of developing a familiarity with the manner in which the media of expression function, and the ultimate aim of demonstrating how architectural projects conceal in their forms the theoretical concepts of their creators and the conditions obtaining in their society. In the academic year 1994-95, the projects were seven residences: Pierre Chareau: *Maison de Verre*; Le Corbusier: *Cook residence*, *Villa Stein*, *Villa Savoye*; Adolf Loos: *Tristan Tzara residence*, *Josephine Baker residence*; Rob Mallet-Stevens: *Villa De Noailles*.

The comparative examination of these residences focused on seven basic problems which cast light on the requirements, the strategy and the syntax of the architectural composition: the plan libre and the *Raumplan*; the promenade architecturale; the literal and metaphorical transparency of the architecture; the mathematical substructure of the architectural composition in terms of its elevation, section and floor plan; the mechanical analogy (also literally and metaphorically) in function and construction; the survival of syntactical elements from classicism; and the traces of relations between the two sexes in internal spatial organisation. However, the principal area in which the course took place was that of practical work, which was divided into two parts. The first was analytical in nature, but it depended wholly on the second, which attempted a synthesis. The students were asked to conduct a critical exploration of one or more of the seven



Kostas Grivas, Alexandros Vazakas: A magnetic field's social house.

houses in terms of the architect's compositional principles and media of expression. Here the initial objective was to diagnose the aesthetic and theoretical factors inherent



Xenia Koloni, Maro Konida, Julia Lagou: A house for Rob Mallet Stevens and Man Ray's meetings

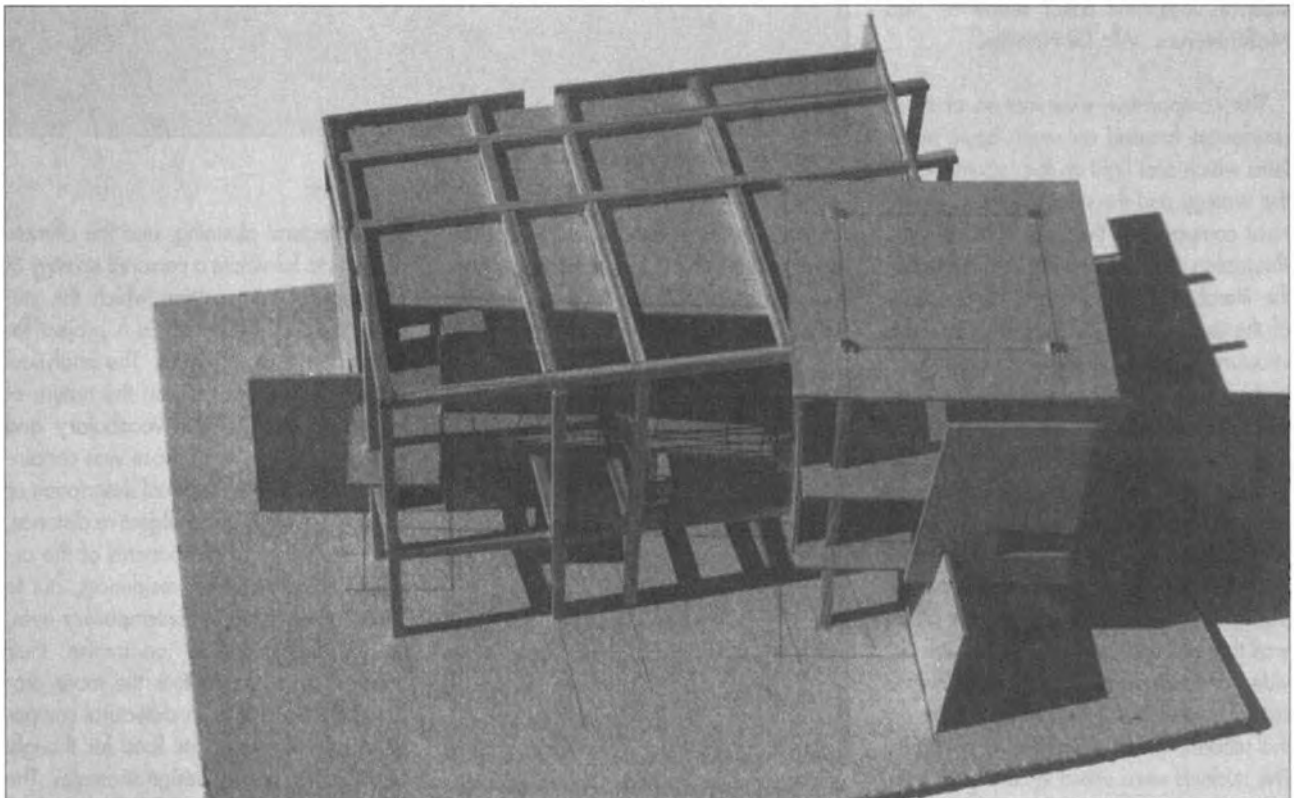
in architectural planning, and the ultimate aim was to formulate a personal strategy of architectural composition which the students were to implement in a project for the design of a residence. The analytical approach was primarily in the nature of an investigation of the vocabulary and syntax of design. Its purpose was certainly not to provide a historical description or to record, from a quasi-objective distance, the morphological components of the architecture of the seven residences, but to "read" them through contemporary eyes, as paradigms, and to "anatomise" their "bodies" so as to capture the more profound functions of the architectural composition and thus generate food for thought about contemporary design strategies. The students were free to depict their ap-

proaches in the manner which best expressed their interpretation (drawings, sketches, models). The attempt at synthesis was confined to the formulation of initial ideas and focused on documenting the ways in which the strategy of design is articulated with the experience of analysis. Here, too, the approach could be depicted in visual terms in the manner which best expressed each student's interpretation, with an emphasis on the experimental search for media of expression of their own.

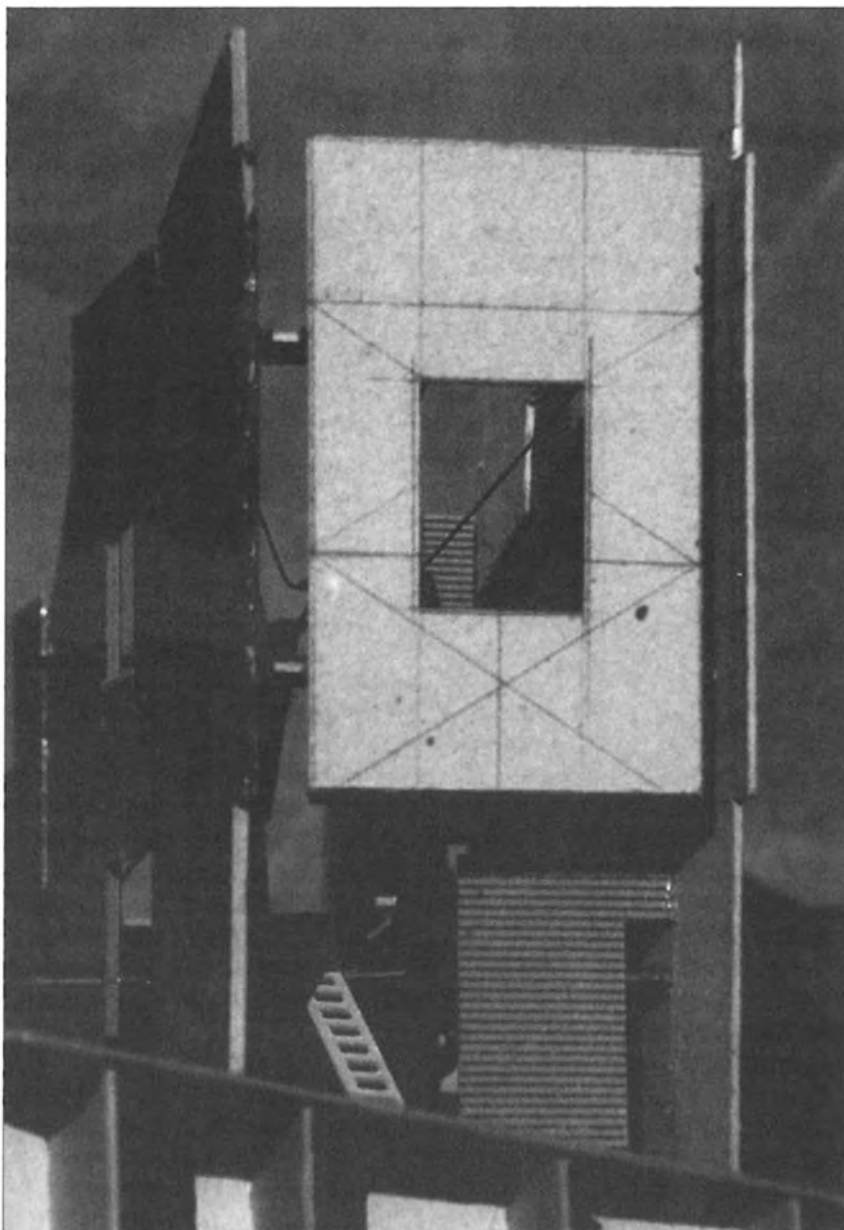
It may be the case that the description given in these paragraphs seems perfectly reasonable and acceptable. What remains, however, is the central problem of method: how is one to come to understand the precedents of architecture to such an extent, and from so many angles, that one is able to judge them and use them in the process of design today? There are undoubtedly recognised techniques of analysis which facilitate an awareness of the design practices of the past. These can be divided into two broad and complementary categories: the analytical and the empirical. Neither of these precludes the other, and neither can be assessed *per se* without regard for the strategy of reading the past which the contemporary architect

has chosen as a way of coping with specific questions of design. In other words, determination and specification of the method will depend on the design problem which the architect has set himself on each occasion. It follows that no one method is by definition better than any other on the absolute criterion of an "academic" view of things and on the clear understanding that we are referring to the recent past, a field which transcends the realm of historical research. The analytical method is interested in a rational understanding of the functional, constructional and morphological organisation of buildings. With the help of design analyses, it explores floor plans, elevations and sections or axonometric drawings of them in order to identify the "syntactical" structures and "grammatical" rules which lie behind the architect's compositional options. Mathematical ratios between parts and the whole, the geometrical arrangement of spaces and masses, the proportions of empty spaces to filled spaces, the rhythmic repetition of elements, scale, relations of hierarchy, a morphological analysis of function – these are some of the guidelines for this method, which has often laid claim to the objectivity of a "science". The empirical method is inter-

ested in a perceptual description of society, aesthetics, and the symbolic presence of buildings. With the help of psycho-sociological analyses, it explores the true form and atmosphere of buildings in order to identify the "poetics" which lies behind the architect's expressive options. The collective memory of types, forms, functions and materials, their symbolic content, colours, acoustics, even the smell of places – these are some of the fields which this method explores, enlisting the assistance of literary, painterly and plastic analysis of the qualitative characteristics of architecture and rejecting the gravitas of "science". The process of architectural creation is, of course, much more complex than any *ex post facto* approach to it or attempt to interpret as a whole, with the help of one method or the other, can reveal. Given this, the purpose of investigating the past and its influences is not a matter of restoring the cohesion of the design practices of the past, but of enhancing the compositional practices of the present. Inspiration, technical knowledge and intuition are thus joined by experience and awareness of earlier works as fundamental strategies for exploring the media of expression of the contemporary architect.



Niki Farantouri: A house after Le Corbusier. Niki Farantouri: A house after Le Corbusier.



Thanos Pagonis: The house of the acrobat.

The three years over which the course was taught certainly contributed to clarifying, little by little, the theoretical requirements and specific aims of the member of staff and the educational method which he chose to use. Above all, however, they made it possible to reach certain conclusions which were based on the manner in which the students coped with the problems they were posed and on the final results of their work. To begin with, there was manifest interest on the part of a significant number of students (a total of 97 over the three years), and their participa-

tion was usually enthusiastic. This interest was connected with the following factors: a) the purely design (compositional) orientation of what was in other respects a historical and theoretical analysis of a form of architecture taken from the past; b) the in-depth approach to a very small number of architectural examples and the specific subject-matter of the approach; and c) the experimental liberation of the media (and tools) for both analysis and synthesis. Nevertheless, results varied – in the eyes of the teacher – from impressive to moderate, or even poor. In itself, turning to

the “paradigm” of modern architecture proved only to be a medium, and – fortunately – did not take on an exemplary character. But it did not prove possible to make a clear transition from analysis of the buildings of the 1920s to the design of buildings today. With very few exceptions, the arguments and media developed were either too simplistic and superficial or too sophisticated and hard to comprehend. The residences which the students designed were sometimes complex objects of sculpture, on the very fringes of the written word, and sometimes resemble poor copies of the originals. Even so, the students had faced up to the difficult quest for a personal language which would have roots and reasons for its options. Above all, they came to see Modern architecture as the complex outcome of architectural design and construction in specific conditions, and not as the simple illustrative documentation of some historical or theoretical discourse, and they appreciated deeper values and problems that go beyond the didactic classification of movements and trends. In this way, the course functioned primarily as an in-depth examination of the architecture of the modern movement, free of any strictly historical dimension, while at the same time contributing to clarification of the concept of precedent and an awareness of its significance both for education and for the practice of architecture per se. I believe that those two points alone were of the greatest benefit to the students.

NOTE

For a broader theoretical analysis of this question, see Panayotis Tournikiotis, “The invocation of precedent in architecture”, *Annals for Aesthetics*, volume 34, 1995, pp. 235-250, and “Le concept de precedent dans les sciences, les arts et l’architecture”, *Cahiers art et science*, no. 2, 1995, pp. 10-27.

The course was entitled ‘An aesthetic view of architecture (investigation of the media of expression)’. It was a compulsory optional course in the eighth semester of studies in the Department of Architecture of the National Technical University, and was taught in three academic years (1992-3, 1993-4, 1994-5)

"KALEIDOSCOPE" SESSION



Julia Gatley
José Manuel Fernandes

Andrej Hrausky
James Ashby
Diby Hartono

Darja Rodović Mahečić
Stella Maris Casal
Dietrich W. Schmidt

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Architecture and Politics State Rental Flats and the Modern Movement in New Zealand

With its South Pacific isolation, New Zealand was somewhat removed from the mainstream development of the Modern Movement in architecture. This paper investigates the establishment and development of the Modern Movement in New Zealand with particular reference to six blocks of state rental flats built between 1939 and 1947.

The blocks of flats were built by a Labour Government and formed only a small portion of a large state housing programme – by 31 March 1943, for example, Labour had built nearly 15,000 state rental units throughout New Zealand (1), mostly detached and semi-detached houses. It is the state rental houses that people generally associate with Labour's housing programme; it is the state rental flats, however, that are of particular importance in the development of the Modern Movement in New Zealand: Wellington's Berhampore Flats (1939-40), Dixon Street Flats (1941-44), McLean Flats (1943-44) and Hanson Street Flats (1943-44), and Auckland's Symonds Street Flats (1945-47) and Grey's Avenue Flats (1945-47). (2)

During construction, progress was followed in the local press. The media attention and public interest created fertile ground on which the government was to capitalise and, in so doing, use the flats for the pur-

pose of political propaganda. There are precedents for considering modern architecture in terms of propaganda, but complexities and anomalies emerge when the publicity given to the blocks of flats is considered alongside the social and urban programmes of the Labour Government.

In terms of social programming, Labour considered families with children to be the most urgent and the most deserving type of applicant for state rental housing. Detached and semi-detached houses were considered ideal for families with children. Blocks of flats, on the other hand, were not considered suitable. Thus the high profile building type that the government was using for the purpose of propaganda was not consistent with its stated priority to provide housing for families with children.

Regarding urban programming, the Modern Movement recognised the importance of town planning and encouraged high density apartment living in conjunction with open green space. Each of the Labour Government's multi-storeyed schemes of flats, however, was designed for a site which was isolated from the other schemes and was not part of a bigger urban design programme.

It is these complexities and anomalies which this paper attempts to examine. First, it outlines the climate into which state flats were introduced.

Background

As the Great Depression eased in the mid 1930s, a severe housing shortage became apparent throughout New Zealand. The voting public elected the country's first Labour Government in 1935. In an effort to overcome the housing shortage, the new Labour Government decided to build thousands of houses itself and rent them to the public at an affordable rate. A Department of Housing Construction was set up in 1936 and large numbers of state houses were built from 1937. The benefits were not limited to housing the population – the construction of the houses was intended to stimulate local industries and kick-start New Zealand's depressed economy.

Co-operation between political, industrial and even corporate leaders was fundamental to the success of the housing programme. The Prime Minister, Michael Joseph Savage, valued the continuing goodwill of union leaders and stated at

the outset that "... the success of Labour, industrial and political, will depend largely on the degree of industrial peace and goodwill that exists among the masses of the people who are employed from time to time in the industries and other services of the country." (3)

Regarding corporate leaders, the Labour Government accepted and then actively sought the advice of James Fletcher, the founder and managing director of New Zealand's largest construction company, the Fletcher Construction Company, in setting up the housing programme. (4) While Fletcher was a powerful capitalist, his role in the state housing programme compounded an "alignment of state and corporate interests" that had emerged earlier in the 1930s (5). With the goodwill of both industrial and corporate leaders, a state-owned construction industry was not required.

The Fletcher Construction Company accords with Peter Rowe's account of the modern company. Fletchers combined what would formerly have been separate stages of production and distribution in order to rationalise, streamline and control the overall construction process and increase profits. James Fletcher himself emphasised the importance of forward planning in the construction industry and made every effort to keep up to date with overseas construction technology, particularly as concerned the use of reinforced concrete. (8) In these respects, the Fletcher Construction Company was as advanced as its European and American counterparts.

In other respects, New Zealand's building industry was more advanced than its overseas counterparts. Architect and engineer Charles Reginald Ford, for example, wrote a book titled *Earthquakes and Building Construction* that was published in 1925 and is thought to be the first book dealing with the seismic performance of buildings to be published in English. (9) Seismic by-laws were then developed in New Zealand following an earthquake which, measuring 7.9 on the Richter scale, laid waste to the two North Island towns of Napier and Hastings in 1931.

The rebuilt towns of Napier and Hastings testify to the vogue of the day: Art Deco, Stripped Classical, Streamlined Moderne and Spanish Mission. Applied ornament was celebrated. Important pub-

lic buildings of the early to mid 1930s tended to follow established styles: Wellington's National Museum and Art Gallery (1931-36) and former Public Library (1936), for example, are loyal exponents of Stripped Classicism and the Wellington Railway Station (1930-37), of Georgian.

It was from 1937 that Labour's state houses began to appear. The early examples were mostly timber framed with weatherboard cladding or a brick veneer and exhibited a restrained Georgian imagery. The hallway (the hallmark of the villa) was retained and the use of individual rooms was predetermined by the location of the fireplace (the living room) and the wardrobes (the bedrooms). The detached state house, not to forget the "veritable garden suburb" in which it was placed, (10) was consistent with the (conservative) New Zealand dream. (11)

In privately built housing, a higher population density was starting to be seen in the larger cities: Horace Massey's Cintra Flats (1936) in Auckland and Edmund Anscombe's Anscombe Flats (1937) in Wellington provide evidence of this, but again their Art Deco and Streamlined Moderne detailing supports the claim that the modern aesthetic was "late" to arrive in New Zealand. (12)

The Modern Aesthetic

A stripping of applied ornament is apparent in the blocks of state flats built by the Labour Government from 1939. The Berhampore scheme, Labour's inaugural multi-unit scheme, comprised 50 flats, eleven garages and a central community hall.(13) It dispensed with the Georgian imagery of the detached state houses and provided evidence that New Zealand architecture had developed beyond the villa, beyond the bungalow, beyond the excesses of Art Deco and beyond the English cottage exemplified by the state house. The modern aesthetic, and more particularly the International Style of 1920s Europe, was infiltrating New Zealand architecture.

The Berhampore Flats and subsequent state flats were constructed of reinforced concrete. Shortages of both skilled labour and building materials, particularly dried timber, had become apparent with the advent of Labour's large-scale housing programme, and the use of reinforced concrete

for the construction of state flats diversified the type of labour and materials being used by the Department of Housing Construction.(14) The shortages of labour and materials also meant that the rate at which outlying land could be serviced was slowed. Consequently, the value of serviced inner-city sections increased and the higher occupant density afforded by flats made better use of such land.

The advantages of diversification and higher density provide the rationale behind the decision to introduce multi-unit schemes into the state housing programme. They do not, however, explain the introduction of an entirely different architectural language to the government's housing programme. Why did the government decide to introduce the modern aesthetic for the blocks of flats instead of following the English models used for the state houses? For the answer to this, we must turn to the respective designers.

The early state houses had been designed under the auspices of the New Zealand Institute of Architects. (15) The same designs were used repeatedly and required little in the way of ongoing design input from the Department of Housing Construction. The flats, on the other hand, were designed within the department itself. The architects were not confined to English models but were given a blank slate. Responsibility ultimately lay with the department's chief architect, Francis Gordon Wilson (1900-59). The modernist imagery of the blocks provides evidence that Wilson was interested in, and knowledgeable of, contemporary European architecture.

Gordon Wilson had been a partner in the firm of Gummer and Ford before being appointed chief architect of the department in 1936. (16) Gummer and Ford are remembered for their pioneering domestic designs such as Tauroa (1916) and Craggy Range (1918), both in Hawkes Bay. Their public buildings, however, tended to rely on a stripping of classical forms to allude to a modernist imagery. Ian Lochhead refers to their "allegiance to classicism". (17) As noted above, however, Charles Reginald Ford had a particular interest in seismic design and, in terms of structure and construction, Gummer and Ford's works were advanced. With fourteen years in this office, Wilson's grounding in reinforced con-

crete construction would have been thorough.

As for the modern aesthetic, there are a number of ways by which it might have reached New Zealand and, in particular, by which it might have reached Wilson: British and European architects were travelling to New Zealand and bringing new ideas with them; New Zealand architects were travelling to the United Kingdom and Europe and seeing modern buildings first hand; architecture was being studied at Auckland University College and an awareness of the Modern Movement might have come through study; and architects in New Zealand were reading imported books and periodicals and finding inspiration through literature and the media.

Wilson was Australian born and New Zealand educated. He studied at Auckland University College in the 1920s. The Auckland School of Architecture, however, was conservative in its philosophy until the late 1940s when a "minor student revolt" finally wrought change. (18) Wilson is not likely to have learned of the Modern Movement as a student. Further, he had not travelled to the United Kingdom or Europe by 1938 when the Berhampore Flats were designed. From 1939, however, he was in close contact with a handful of European architects – refugees with Jewish connections – employing them in the Department of Housing Construction. (19)

The refugee architects would have provided stimulus within the department, and their influence on Wilson must have been considerable. Ernst Anton Plischke (1903-92) (20) and Frederick Hugh Newman (1900-64), (21) both from Austria, were two of the better known. Plischke, in particular, was an esteemed modernist, and in his book *Gli Elementi dell' Architettura Funzionale* Alberto Sartoris used Plischke's work to open the chapter on Austria. (22) Wilson is claimed to have known of Plischke's work before his arrival in New Zealand and, while it is possible that Wilson would have been threatened by the presence of an architect of this calibre in his office, it is equally possible that he would have been challenged and even inspired by it. (23)

By 1939, when the refugee architects were arriving in New Zealand, the Berhampore Flats were under construction and neither Plischke nor Newman was in-

volved with their design. Plischke is known to have had some input into the detailed drawings for the Dixon Street Flats, although the concept drawings were prepared earlier, at a time when he was being given little responsibility in the office. (24) Newman is known to have had input into the drawings for the McLean Flats, and can be credited with the design of the Symonds Street Flats. It is Gordon Wilson, however, who remains ultimately responsible for all buildings built by the department.

Of greater influence on Wilson, however, were the imported books and periodicals he was reading and the buildings which were reproduced in them. Beatriz Colomina argues that modern architecture only becomes modern with its engagement with the media. (25) Reproduced as a subject within the media, an architectural object becomes accessible to the architect in Berlin, in London and in Wellington. Colomina notes that architecture is more accessible as the subject than it is as the object. (26) This is certainly the case when considering the accessibility of European architecture to New Zealand architects: the object is 12,000 miles away whereas the subject is within arm's reach. Thus modern architecture in Europe, the United Kingdom and the United States was accessible to New Zealand architects as a result of mass re-production.

By the 1930s, imported books and periodicals were readily accessible in New Zealand. (27) Of the large number of periodicals being imported, the *Architectural Review* was treated "as the gospel" by young New Zealand architects. (28) By the late 1920s it had already become "a consistent and powerful supporter of the modern movement" (29) and modern architects working in both Europe and the United Kingdom were featured regularly. The number of New Zealand publications on architecture and design was increasing from the mid 1930s, but imported books and periodicals continued to be read compulsively, as they are today. (30)

While the flat roofs and lack of applied ornament of the Berhampore Flats show that the modern aesthetic was infiltrating New Zealand architecture in the late 1930s, the scheme remains transitional in a number of ways. It maintains perimeter planning about a central green space, and in floor planning and interior detailing the

individual units (row houses) differ little from their detached and semi-detached state rental counterparts. (31) More than this, the Berhampore scheme is transitional in that its occupant density lies between that of Labour's detached housing schemes and the multi-storeyed blocks of flats that were to follow it. In this way the Berhampore Flats paved the way for New Zealand's first slab apartment block, the Dixon Street Flats.

Political Propaganda

The Dixon Street Flats were designed in 1940 and built 1941-44 in inner-city Wellington. (32) A ten-storeyed monolith, this block was of a scale unprecedented in the history of domestic architecture in New Zealand and may be described as the archetypal example of the slab apartment block in this country. As such, it is a building of national significance. (Fig.1.-3.)

During construction, progress was followed in the local press. (33) The press focused on the magnitude of the block and the job developed a high public profile. The media attention and public interest created fertile ground on which the Labour Government was to capitalise: while the completion certificate was not issued until 1 March 1944, the flats were publicly opened six months earlier on 4 September 1943 – just three weeks short of a general election. (34) With the premature opening the government was using the Dixon Street Flats for the purpose of political propaganda.

Labour had already used detached housing schemes for propaganda purposes. Photographs of a "family", for example, complete with a borrowed baby, outside a state house in Palmerston North, were used to promote immigration to New Zealand from Britain in 1939. (35) The Dixon Street Flats provided a richer opportunity, however, in that they employed a progressive architectural language. With their unprecedented magnitude and their modern aesthetic, the Dixon Street Flats were used to market the "progressive" nature not only of the Department of Housing Construction but of the Labour Government itself.

It is relevant to recall the use of modern architecture for political propaganda in Europe. From 1924 when the German economy had stabilised, progressive official bodies in many parts of that country

took the initiative in battling the housing shortage and began entering into large scale, low-cost housing schemes. (36) According to Richard Pommer and Christian Otto, housing became a high-profile symbol of new domestic policies and there was some competition between cities and regions to do better than Berlin. (37)

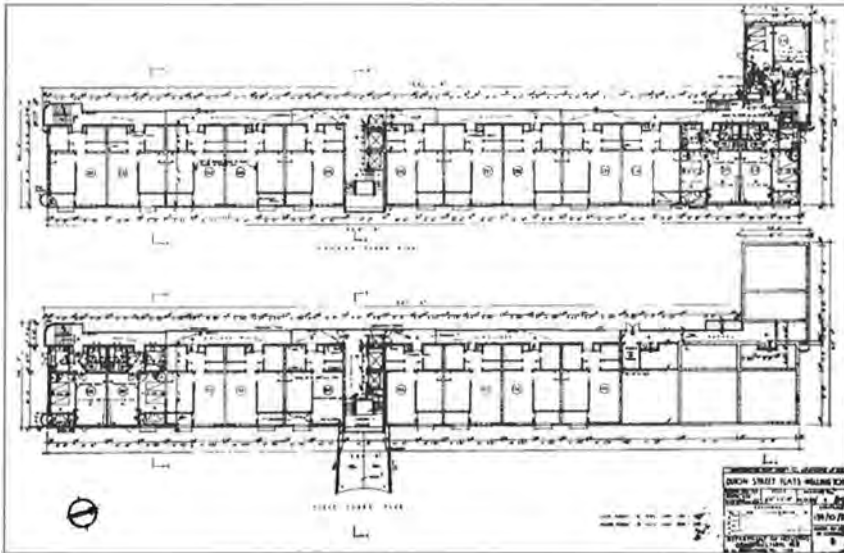
In view of the cost efficiency of high density apartments, the modernist architects were supported by municipal governments and the appearance of this building type in 1920s Germany was widespread. Other than their belief in multi-storeyed blocks, however, the architects and the municipalities had little in common – accord-



Dixon Street Flats - West elevator. Photographer: Julia Gatley, August 1995

ing to Stanley Buder, the architects were envisioning a new urban order and the municipalities were acting from practical considerations. (38)

Gordon Wilson may too have been envisioning a new urban order, but it was an order to which the Labour leaders did not subscribe. It was Labour's stated priority to provide affordable accommodation for families with children. (39) Detached and semi-detached houses were considered ideal for families with children. Blocks of flats were not considered suitable. Thus, in using a high density building type for propaganda purposes, the government was sending out conflicting messages. To understand this anomaly, we must look to Labour's social programme.



Plan of first and second floors of the Dixon Street Flats. Drawn : KRR and TLM. Checked: G.F.W. September 1940



Dixon Street Flats, 1941-44, East elevator. Photographer: Julia Gailey, August 1995

Social Programme

Prior to the 1935 election, the stated objective of the Labour Party was to utilise New Zealand's resources to the highest degree:

First: For the purpose of restoring a decent living standard to those who... (had) been deprived of essentials for the... (previous) five years;

Second: To organise an internal economy that... (would) distribute the production and services in a way that... (would) guarantee to every person able and willing to work an income sufficient to provide him (sic) and his family with every-

thing necessary to make a "home" and "home life" ... (40)

From the outset we have the idea of the family and the family home. In providing thousands of detached state houses, Labour was pandering to the family unit – not just any family but, as Ben Schrader argues, the nuclear family: "Mum, Dad and two (maybe three) children, all of whom would be able to enjoy the 'pleasures of family life' in a living room especially designed for this function." (41) Labour was not only pandering to the family unit, however, but was idealising and encouraging family life by, as the second objective notes, utilising

the country's resources to generate employment – with employment, an income would be earned and with an income, a decent standard of living and a "home" and "home life" would be attainable. And thus we have it: in Gael Ferguson's words, "the New Zealand dream". (42)

Labour envisaged taking the initiative in utilising resources and generating employment itself by undertaking public works. The works were intended to stimulate secondary industries. In cases where an income could not be earned through employment, Labour saw itself as the provider, and the 1935 Election Policy stated Labour's commitment to free medical, maternity and dental care for all, including full medical attention for invalids and maintenance for both the afflicted individuals as well as their dependants; payments to widows to enable them to maintain themselves and their children; and superannuation to all persons at the age of 60. This social programme was realised with the passing of the Social Security Act in 1938.

The Act has been described as *the pièce de résistance* of the Labour Government's first term. (43) New Zealand had already earned a reputation for advanced social legislation and Labour's Minister of Finance, Walter Nash, acknowledged the Liberal Government of the 1890s for its "vigorous social programme of old-age pensions, universal suffrage, laws governing employment in factories, shops and offices, state advances for housing and land settlement, and other social reforms". (44)

With the Social Security Act 1938, this reputation for advanced social legislation was enhanced. In terms of its social programme, the Labour Government can indeed be described as "progressive". (45) The state housing programme was part of that social programme and it is fitting that a progressive building type (i.e. blocks of flats), and even a progressive aesthetic, should be included. As noted, however, an anomaly arises between the provision of this building type and Labour's ideal of the nuclear family living happily in the detached suburban house.

Before the Dixon Street Flats had been opened, a start had been made on the next two blocks of state flats: the McLean Flats (Fig. 4), The Terrace, (46) and the Hanson Street Flats, Newtown. (47) Their construction confirms that the Labour

Government was committed to the inclusion of multi-storeyed blocks of flats in its housing programme. Why was Labour continuing to build blocks of state flats when families with children were its stated priority?

Though of lesser size, the McLean Flats and the Hanson Street Flats are clearly derivative of the Dixon Street Flats in both plan and elevation. With the aesthetic came the baggage, i.e. the association with Labour. If the Dixon Street Flats were used to market the progressive nature of the Labour Government, then the McLean Flats and the Hanson Street Flats served to reiterate and reinforce that message. Why was Labour continuing to build a building type that attracted a high profile but failed to cater to its stated priority?

First, in 1943 the Department of Housing Construction recognised that: "There are many families with one child, or composed of all adults or elderly people, and many single people who live alone or in groups. To these the multi-dwelling type will allow them more time and greater ease for the pursuit of their particular interest or hobby..." (48) Blocks of flats provided accommodation for this "other" type of applicant. While "many" people fell outside the ideal, however, the department chose to publish (and in doing so, promote) that only 1% of the state rental units built by 1943 catered specifically to them, i.e. were flats. In publicising that only a small percentage

of state rental units were flats it was actually emphasising that detached houses remained the priority.

In the early to mid 1940s, however, there was more at stake than just the provision of accommodation. It was war time, and the government's Building Controller approved the construction of both the McLean Flats and the Hanson Street Flats at a time when priority was being given to defence works. Approval was given for both blocks to be built not as state flats, but as essential defence works. (49) The government's defence programme was curtailed a month or so later, in May 1943, the threat of a Japanese attack having been reduced. (50) The construction of most defence works ceased, but progress on the McLean Flats and the Hanson Street Flats continued.

At that time thousands of ex-servicemen and women were starting to return to New Zealand from overseas. To provide for their re-establishment in civilian life and to facilitate the change from war-time back to peace-time requirements in industry, the Rehabilitation Act had been passed as early as 1941. Specific to the building industry, the Ministry of Works Act was then passed in 1943 to ensure that the switch from defence building to post-war building would be efficient and continuous. (51) The intention was that war-time industry would be reverted to peace-time requirements. Nancy Taylor notes that the job in

hand was twofold: carrying on with the war and getting ready for peace. (52)

The McLean Flats and Hanson Street Flats were the forerunning examples of the switch from defence building back to state housing. They can be considered as both defence projects and state housing projects, yet were not typical of either. The McLean Flats and the Hanson Street Flats diversified the labour and materials being used in public works and, in doing so, were intended to make best use of labour and materials as the end of the war came into view and resources became available.

Regardless of the diversity they brought to the public works programme, and the accommodation they provided for applicants other than families with children, the Dixon Street Flats, the McLean Flats and the Hanson Street Flats were subject to public scrutiny and criticism for failing to cater to families with children. (53) In light of the criticism, the Labour Government chose not to build any more multi-storeyed blocks of state flats in Wellington after the completion of these three in 1944.

Urban Programme

The number of state rental units built around the country was dependent upon the number of applications received by the government's State Advances Corporation. Numbers show that the housing shortage was particularly severe in Auckland as well as in Wellington. (54) It was in both Auckland and Wellington, therefore, that the Labour Government decided to erect blocks of flats.

In Auckland, inner-city land had been acquired in Symonds Street in 1939 and in Grey's Avenue in 1941. The development of both the Grey's Avenue and Symonds Street sites was put on hold, however, as a result of war-time shortages in the supply of both labour and materials, and it was not until 1944 that the detailed design of multi-storeyed blocks of flats was underway for both sites, with the scheme in Symonds Street to comprise 163 units and that in Grey's Avenue, 468 units. (55) Due to ongoing shortages of steel, however, only the first stage of each development was ever completed, with that in Symonds Street comprising 45 units and Grey's Avenue, 50.

The Grey's Avenue Flats are of particular significance for the reason that their construction required the clearance of slums



McLean Flats, 1943-44. Photographer: Julia Gatley, August 1995

and resulted in the rehabilitation of the cleared land. As the scheme was to incorporate slum clearance, the Auckland City Council contributed 25,000 pound sterling towards the purchase of the site.

The Labour Government had acknowledged at the outset that slum clearance and urban renewal were required in the older areas of the inner-cities which had, in many cases, decayed. (56) None of the state flats built in Wellington, however, had involved the demolition of any sub-standard or "decadent" housing and, though the proximity of the Dixon Street Flats and the McLean Flats may suggest otherwise, the blocks were not part of a cohesive urban design programme: the urban order of the Modern Movement was not on Labour's agenda. (57)

Town planning legislation had been enacted in 1926 but, with depression and then war, local authorities had generally been slow in responding. The Home Improvement Act was then passed in 1945, transferring the onus for slum clearance and urban renewal from central government to local authorities. The latter responded with varying degrees of enthusiasm.

The Auckland City Council was one authority to respond positively, taking an active role in both town planning and urban renewal at a time when most, including the Wellington City Council, were loathe to do so. In contributing 25,000 pound sterling towards the purchase of the Grey's Avenue site, the Auckland City Council was taking initiative prior to the passing of the Home Improvement Act and the legal requirement to do so. It was not until in the 1950s, however, that large scale town planning and urban development were to be seen in New Zealand cities, even Auckland, and the Grey's Avenue Flats stand out as an early and influential example of slum clearance and urban renewal. It should also be noted, however, that the state flats generally were of very great importance in motivating an urban awareness in others. This is evidenced by the Architectural Centre's Replanning of Te Aro Flat, for example, in Wellington (1947-48).(58)

Conclusions

With the completion of the Berhampore Flats (Fig. 5) and the five multi-storeyed schemes of state flats that followed, there is no doubt that the Modern Movement

was well and truly established in New Zealand. It is fitting that this progressive building type, and even the progressive aesthetic, should have been included within Labour's state housing programme – the housing programme was, after all, part of a larger social programme that was itself progressive.

As stated, however, there is an anomaly between the provision of this building type and Labour's ideal of the nuclear family living in the detached suburban house. In choosing to use blocks of flats for the purpose of political propaganda, the govern-

der to which the Labour Government did not subscribe. Each of the multi-storeyed schemes of state flats was designed for a site which was isolated from the other schemes and the blocks were not part of a cohesive urban design programme. Generally, however, they did motivate an urban awareness in others and the Grey's Avenue Flats, in particular, were of very great significance as an early and influential example of inner-city slum clearance and urban renewal.

While it is the state houses that people generally associate with Labour's housing



Berhampore Flats, 1939-40. Photographer: Julia Gatley, August 1995

ment was drawing attention to the anomaly and was leaving itself wide open to criticism for erecting buildings which failed to cater to families with children. So why did the government continue to include state flats in its housing programme?

First, they provided accommodation for an "other" type of applicant: "families with one child, or composed of all adults or elderly people, and many single people..." (59) There was more at stake than the provision of accommodation, however. The blocks were constructed around World War II. It was a time when labour and materials were in short supply, with priority being given to defence works. Labour's state flats diversified the types of labour and materials being used in public works and, in doing so, were intended to make the best use of labour and materials that were available.

Further anomalies occur in that the urban order of the Modern Movement was an or-

programme, it is the state flats that are of particular importance in the development of the Modern Movement in New Zealand. Important in terms of aesthetics and propaganda, the schemes are interesting as a result of the complexities and anomalies that arise when they are considered within the social and urban programmes of the Labour Government under which they were built.

NOTES

1 The figure was 14,619. It included both houses and flats. See Appendix to the Journals of the House of Representatives, 1943, B-13, p9.

2 The Berhampore Flats are important in that they were the inaugural multi-unit scheme. The others listed in the text are all multi-storeyed schemes.

Labour's housing programme included another seven blocks of flats: the Victory Flats, Adelaide Road, Wellington;

- Jackson Street Flats, Petone; Petone Flats, Adelaide Street, Petone; Tennyson Street Flats, Petone; Randwick Road Flats, Lower Hutt; Wakefield Street, Lower Hutt; and Parnell Flats, Parnell, Auckland. Each of these schemes comprises little more than a series of two storeyed row houses and will not be dealt with in this paper.
- 3 Michael Joseph Savage, Prime Minister from 1935 to 1940, quoted in Paul, JT, *Humanism in Politics: New Zealand Labour Party Retrospective*, New Zealand Labour Party, Wellington, 1946, p98.
 - 4 National Archives file, NASH 2196/0132, Fletcher, James, "Proposals for Organisation of Building Construction", 1936, and National Archives file, NASH 2196/0130, James Fletcher to Michael Joseph Savage, 13 June 1936.
 - 5 See Walker, Dr Paul, "Shaky Ground", in Linzey, Michael, and Jenner, Ross (Eds), *Interstices: A Journal of Architecture and Related Arts*, Vol 2, Department of Architecture, University of Auckland, Auckland, 1992, p29.
 - 6 See Rowe, Peter G, *Modernity and Housing*, The MIT Press, Cambridge, Massachusetts, and London, England, 1993, p8. Rowe writes that larger companies were replacing or combining smaller producers and distributors in both Europe and North America by the 1890s in search of greater control over the market place and higher profits.
 - 7 The separate stages of production that Fletchers entered into included brick making, stone and marble quarrying, timber milling and joinery manufacture. This ensured that materials were available in the quantities it required.
 - 8 Robinson, Neil, James Fletcher, Builder, Hodder and Stoughton, London, 1970, p49.
 - 9 Walker, Ibid, p31. Walker refers to Park, Robert, "Development of Structural Design Procedures for Earthquake Resistance in New Zealand", *Transactions of the Institute of Professional Engineers of New Zealand*, Vol 14, No 1, 1987, p23.
 - 10 See Appendix to the Journals of the House of Representatives, 1940, B-13, Part II, p13.
 - 11 For a discussion of "the New Zealand dream", see Ferguson, Gael, *Building the New Zealand Dream*, The Dunmore Press Ltd with the assistance of the Historical Branch, Department of Internal Affairs, Palmerston North, 1994.
 - 12 See Lochhead, Ian, "New Zealand Architecture in the Thirties: The Impact of Modernism", *Landfall*, 152, Vol 38 No 4, December 1984, p466-481.
 - 13 See National Archives file, SAC Series 1, 35/152/1 Part 1.
 - 14 National Archives file, HD 3/1/8 Part 2, Arthur Tyndall to the Aide-de-Camp in Waiting, Government House, 20 July 1937. See also Appendix to the Journals of the House of Representatives, 1938, B-13A, p16.
 - 15 National Archives file, NASH 217/0720, HT Armstrong, Minister of Housing, "Statement Showing Progress of Government Housing Scheme From Inception", 1 June 1939.
 - 16 For a biographical account of Gordon Wilson, see Davis, KJ, "A Liberal Turn of Mind: The Architectural Work of F Gordon Wilson, 1936-1959, A Cultural Analysis", Unpublished research report, School of Architecture, Victoria University of Wellington, Wellington, 1987; Petry, Bruce, "The Public Architecture of Gummer and Ford", Master of Architecture thesis, University of Auckland, Auckland, 1992; *Journal of the New Zealand Institute of Architects*, March 1959, pp55-56; and McLintock, AH (Ed), *An Encyclopedia of New Zealand*, Department of Internal Affairs, Wellington, 1966, Vol 3, p667.
 - 17 Lochhead, Ibid, p468.
 - 18 Sinclair, Keith, *A History of the University of Auckland, 1883-1983*, Auckland University Press and Oxford University Press, Auckland, 1983, pp210-211.
 - 19 This included Ernst Plischke, Fred Newman, Ernst Gerson, Fritz Farrar and Richard Fuchs.
 - 20 See Tyler, Linda, "The Architecture of EA Plischke in New Zealand, 1939-1962", Master of Arts thesis, University of Canterbury, Christchurch, 1986, pp1-33, and Plischke, EA, *Vom Menschlichen im Nuen Bauen: On the Human Aspect in Modern Architecture*, Verlag, Kurt, Wedl, Wien, München, 1969, pp15-31. Briefly, Ernst Plischke had trained under Peter Behrens at the Vienna Academy of Fine Arts (1923-1926), had spent five months working in Behrens' office in 1926 and had worked in the office of Jacques Ely Kahn in New York in 1929. Returning to Austria in 1930 he contributed a design for the Vienna Werkbundsiedlung, the Vienna State Council's experimental housing research project which had been inspired by the Weissenhofsiedlung (1927). A much praised and widely published example of Plischke's work is the Government Employment Office building at Liesing, Vienna (1930-1931), which was defaced after the annexation of Austria in 1938 as it was thought to epitomise modernist philosophies. Plischke, with his Jewish wife and her children, fled Austria and sought refuge in New Zealand. Arriving in May 1939, he found work as a draughtsman within the Department of Housing Construction.
 - 21 See Sheppard Collection File N552f, University of Auckland, Department of Architecture, as well as obituaries in *Home and Building*, Vol 27 No 6, 1 November 1964, p8; and *Journal of the New Zealand Institute of Architects*, September 1964, p259. Briefly, Fred Newman graduated from Vienna Technical University in 1923 and undertook post-graduate study at L'Ecole des Beaux Arts in Paris in architecture and at Vienna University in engineering. He practised in Paris and Vienna and later in the USSR (1933-1937) where he was employed at the invitation of the government as a foreign specialist in the design of high density housing, large administration buildings, hospitals and sanatoria. Newman then returned to Austria but with Hitler's invasion of 1938 he and his family fled Europe and made their way to England and then New Zealand, arriving in January 1939, and Newman found work within the Department of Housing Construction.
 - 22 See Sartoris, Alberto, *Gli Elementi Dell' Architettura Funzionale*, Seconda Edizione Intermente Rifatta, Milan, 1935.
 - 23 Plischke claims Wilson to have been in possession of a copy of Sartoris' book and to have produced it at their first meeting in 1939. It is not known if it was a copy of the 1931 edition or the 1935 edition. See Plischke, EA, *Ein Leben mit Architektur*, L'Ecker Verlag, Wien, 1989, p 233.

- 24 See Gatley, Julia, "Privacy & Propaganda: The Politics of the Dixon Street Flats", A paper presented at "ACCESSORY/Architecture", Conference of the Department of Architecture, University of Auckland, Auckland, 5-8 July 1995, and at "50 Years of Modernity in Australasia: 1920-1970", Conference of the Society of Architectural Historians of Australia and New Zealand, Sydney, 14-16 July 1995.
- 25 See Colomina, Beatriz, *Privacy and Publicity; Modern Architecture as Mass Media*, The MIT Press, Cambridge, Massachusetts, and London, England, 1994, pp14-15.
- 26 See Colomina, *Ibid*, p204.
- 27 Books being imported are likely to have included Le Corbusier's *Towards a New Architecture* (1927, from *Vers une Architecture* [1923]) and *The City of Tomorrow* (1929, from *Urbanisme* [1924]); Bruno Taut's *Modern Architecture* (1929); HR Hitchcock Jr's *Modern Architecture, Romanticism and Reintegration* (1929); Hitchcock and Johnson's *The International Style; Architecture Since 1922* (1932); Alberto Sartoris' *Gli Elementi dell' Architettura Funzionale* (1931 and 1935); Catherine Bauer's *Modern Housing* (1934); FRS Yorke's *The Modern House* (1935) and *The Modern Flat* (1937); and Albert Roth's *The New Architecture* (1940). Nikolaus Pevsner published the essay *Pioneers of the Modern Movement from William Morris to Walter Gropius* in 1936. Sigfried Giedion's *Space, Time and Architecture* then appeared in 1941. Periodicals being imported included: *Academy Architecture and Architectural Review*, the *Architectural Review*, the *Architect's Journal*, and the *Journal of the RIBA* from Great Britain; and the *Architectural Forum*, the *American Architect and Architecture*, the *American Institute of Architects Journal*, *Architectural Record*, and *Pencil Points* from the United States. Periodicals in languages other than English were also being imported including: *Deutsche Bauzeitung* and *Moderne Bauformen* from Germany; *L'Architecture d'Aujourd'hui* from France; *Profil* from Austria; and *Werk* from Switzerland. They all carried articles which addressed the issue of modernism.
- 28 Pers comm. Bill Alington, Jim Beard, George Porter, Bill Toomath and Tony Treadwell interviewed by Philippa Hoeta for the Architectural Centre, 15 December 1994.
- 29 Farr, Dennis, *English Art, 1870-1940*, Oxford University Press, Oxford, 1978, p298.
- 30 Journals being published in New Zealand included the *Journal of the New Zealand Institute of Architects* from 1913; *Progress/ New Zealand Building Progress* from 1905 to 1924, resurrected as *Building Progress* from 1936; and *Home and Building* from 1936.
- 31 In plan, for example, both the flats and the houses have an entrance porch that acts as a transition space between the exterior and the interior; both have a hallway space that provides access to most of the rooms and is fundamental to internal circulation; both have living rooms positioned to take advantage of natural sunlight; and partitions, door frames and window frames are all timber framed and doors, wooden.
- 32 National Archives file, SAC Series 1, 35/152/3 Parts 1 and 2, and National Archives file, HD 124/10/2 Part 4.
- 33 See "Random Notes", *Building Progress*, Vol 5 No 4, April 1940, p21; "Large Block of Flats", *Building Progress*, Vol 5 No 6, June 1940, p7; "Tenders", *Building Progress*, Vol 5 No 9, September 1940, p19; "Random Notes", *Building Progress*, Vol 5 No 12, December 1940, p24; "Random Notes", *Building Progress*, Vol 6 No 6, June 1941, p8; "News in Brief: Dixon Street Flats", *Dominion*, 18 August 1943, p6; "Dixon Street Flats: Opening on Saturday", *Dominion*, 2 September 1943, p7; "Multi-Unit Block: New Wellington State Flats; Building Officially Opened", *Dominion*, 6 September 1943, p4; "New Flats Opened: Block in Dixon Street", *Evening Post*, 6 September 1943, p6; "Housing in Wartime", *Dominion*, 9 September 1943, p6; "Dixon Street Flats: Advertisement Criticised by Mr Semple", *Dominion*, 22 September 1943, p8; "Dixon Street Flats", *New Zealand Home and Building*, Vol 7 No 1, Summer 1944, pp20-23, p47.
- 34 See "Multi-Unit Block: New Wellington State Flats; Building Officially Opened", *Dominion*, 6 September 1943, p4; "New Flats Opened: Block in Dixon Street", *Evening Post*, 6 September 1943, p6. The certificate of completion was not issued until 1 March 1944. See National Archives file, SAC Series 1, 35/152/3, Part 1, Director of Department of Housing Construction to Manager of State Advances Corporation, 20 July 1944.
- 35 See Stewart, Di, and Associates, "Savage Crescent State Housing Precinct, Palmerston North: An Historical and Architectural Overview", Palmerston North City Council, Palmerston North, n.d. (c1993-94). Street names such as Savage Crescent within the schemes of detached houses ensured that the association with Labour was readily apparent and enduring, Savage being the Labour Prime Minister from 1935 to 1940. According to Bruce Brown, "Savage (himself) came to symbolise the policies of humanism and welfare which he advocated". See Brown, Bruce, *The Rise of New Zealand Labour: A History of the New Zealand Labour Party from 1916 to 1940*, Price Milburn, Wellington, 1962, p221.
- 36 Banham, Reyner, *Theory and Design in the First Machine Age*, The Architectural Press, London, First published 1960, Seventh edition 1977, p272.
- 37 Pommer, Richard and Otto, Christian F, *Weissenhof 1927 and the Modern Movement in Architecture*, University of Chicago Press, Chicago and London, 1991, p16.
- 38 Buder, Stanley, *Visionaries and Planners: The Garden City Movement and the Modern Community*, Oxford University Press, New York, 1990, p152.
- 39 See National Archives HD 3/1/8 Part 4, Letter from Minister of Works to Director of Housing Construction, 14 March 1944.
- 40 "Labour's Election Policy, 1935: Security and Prosperity for All", quoted in Paul, JT, *Humanism in Politics: New Zealand Labour Party Retrospective*, New Zealand Labour Party, Wellington, 1946, pp164-174.
- 41 Schrader, Ben, "Planning Happy Families: A History of the Naenae Idea", Master of Arts thesis, Victoria Univer-

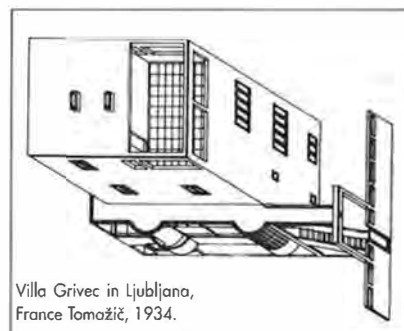
- sity of Wellington, Wellington, 1993, pp69-70.
- 42 See Ferguson, *Ibid*.
 - 43 Brown, Bruce, *The Rise of New Zealand Labour: A History of the New Zealand Labour Party from 1916 to 1940*, Price Milburn, Wellington, 1962, p184.
 - 44 Nash, Walter, *New Zealand: A Working Democracy*, Duell, Sloan and Pearce, New York, 1943, p60.
 - 45 In terms of propaganda, Walter Nash described New Zealand as "a young and enterprising democracy advanced in social legislation" (Nash, *Ibid*, p63) with a reputation "as the world's economic and social laboratory" (Nash, *Ibid*, p57).
 - 46 See National Archives file, SAC Series 1, 35/152/9 and National Archives file, HD 10/426/1.
 - 47 See National Archives file, SAC Series 1, 35/152/8.
 - 48 Department of Housing Construction, *General Report on State Housing in New Zealand*, Ministry of Works, Wellington, 1943, p34. This sentiment was repeated in Firth, Cedric, *State Housing in New Zealand*, Ministry of Works, Wellington, 1949, pp34-35 : "The real garden-city has important advantages in many ways over a town of multi-unit dwellings, but it must not be forgotten that there are many people who have interests other than babies and gardens... the multi-unit dwelling affords more freedom for the pursuit of their particular interests, should they be sport, concerts, theatre, or the many societies and organisations that go to make up our way of life".
 - 49 See National Archives file, HD 10/426/1, Director of Housing Construction to Defence Works Allocation Committee, 19 February 1943, and National Archives file, SAC 1, 35/152/ 9 Part 1, Director of Housing Construction to Minister of Works, 9 November 1944. National Archives file, HD 10/426/1 carries an undated file note that states: "This contract (McLean Flats) is allocated to WM Angus Ltd and is considered as Defence Work. The contractor is entitled to tender under the system of Defence Master Schedule". The file note was written August-October 1943.
 - 50 National Archives file, HD 3/1/8 Part 4, James Fletcher to GW Albertson, Director of Housing Construction, 8 May 1943.
 - 51 Fletcher Challenge Ltd, Archives and Management, Auckland, Acc 0467 Item 1/2, Fletcher, James, Paper on work as Commissioner of Defence Works, 20 January 1960.
 - 52 Taylor, Nancy M, *The Home Front, Official History of New Zealand in the Second World War 1939-45*, The New Zealand People at War, Historical Publications Branch, Department of Internal Affairs, Wellington, Vol II, 1986, p1231.
 - 53 For example see National Archives SAC 1, 35/152 Part 1, Wellington Branch Manager, 30 March 1942; National Archives HD 3/1/8 Part 4, JN Pearce to Minister of Housing, 10 May 1942; Dominion, 9 March 1943, p4; Building Progress, Untitled article, October 1943, p4; National Archives HD 3/1/8 Part 4, Minister of Works to Director of Housing Construction, 14 March 1944.
 - 54 Of the 13,157 applications received by 31 October 1938, for example, 4922 (c37%) were from Auckland city and suburbs and 4743 (c36%) were from Wellington city and suburbs. These figures are disproportionately high in relation to the population of these two centres, with c14-15% of the population living in Auckland and c10% in Wellington. See National Archives NASH 217/0717-1307, "State Rental Housing, Schedule shewing (sic) the present applications", 31 October 1938. One explanation for the housing shortage being so severe in Auckland and Wellington was that, during the depression years and the years immediately after, there was a general shift of the population from rural to urban areas in search of work. Construction had dwindled during those same years, however, and there was no supply of houses available to meet the increased demand.
 - 55 See New Zealand Official Yearbook, 1944, p291 and National Archives file, HD 3/1/8 Part 5, File note, 26 September 1944.
 - 56 See "Election Policy: Education, Housing, Land and Primary Industries", Dominion, 24 September 1938, p15.
 - 57 Town planning concerns were summarised as follows by CIAM (Congrès Internationaux d'Architecture Moderne) after the congress in Brussels: the lack of regulations for the dividing of land into lots; the persistence of buildings in the form of enclosed blocks; the distrust of new building methods; the harmfulness of period buildings in old centres; the economic difficulties; the lack of interest on the part of authorities (in the less developed countries) in the studies carried out and in the results obtained abroad. See Benevolo, Leonardo, *History of Modern Architecture; Volume II, The Modern Movement*, Routledge & Kegan Paul, London, First published in Italy in 1960, Translated into English by HJ Landry from the third Italian edition in 1966, Reprinted 1971, Vol II, p537.
 - 58 The Architectural Centre is a Wellington organisation of architects, artists, art workers and others with an active interest in architecture, the arts and town planning. It was founded in 1946 and in its early years played a significant role in the development of the Modern Movement in Wellington. The Replanning of Te Aro Flat was the name of a Summer School of Design which was held in the summer of 1947-48 and involved the replanning of the "seedy" part of inner-city Wellington by architecture students. See Walker, Dr Paul, "Order from Chaos: Replanning Te Aro", in Wilson, Dr John (Ed), *Zeal and Crusade: The Modern Movement in Wellington*, Te Waihora Press, Christchurch, 1996. More specifically, evidence that the Dixon Street Flats were influential in the Centre's Replanning of Te Aro Flat can be found in John Cox's review of the Te Aro Replanned Exhibition. Cox drew attention to the benefits of high density flats and used the Dixon Street Flats to illustrate his review. See Cox, John, "Commentaries: A Town Planning Exhibition", *Landfall*, Vol 2 No 2, June 1948, pp132-136 and associated photographs.
 - 59 Department of Housing Construction, *General Report on State Housing in New Zealand*, Ministry of Works, Wellington, 1943, p34

Modern Movement in Slovenia

When we consider architecture in Slovenia between the Wars, it seems that the circumstances were not at all favourable for the development of Modern Movement. The political situation after the founding of the new Slavic state of Yugoslavia supported nationalistic architectural trends. Moreover, Jože Plečnik (1872-1957), without doubt the most important figure of the time, had little interest in contemporary architecture. He practised his own version of *Architectura perennis* (the title of 1941 book) with great public success. With his position as the first professor on the newly-founded Faculty for Architecture in Ljubljana, he could filter foreign influences. In these circumstances there can be

no surprise that when Avgust Černigoj (1898-1985), the only Slovenian Bauhaus student, returned from Weimar to Ljubljana in 1924, he was completely misunderstood. His exhibition of the same year aroused only a few young architects, which at least meant that he was able to found his private architectural school in Ljubljana. The school did not last long, nor have any significant impact on the situation of the day, but the small group of enthusiasts did become larger. In addition, Plečnik's students were becoming increasingly confused by the new architecture they found published in foreign magazines. In the year 1925 the school of architecture organised an excursion to the International Exhibition of Decorative Arts in Paris. Not only did the students see the work of Le Corbusier, but - even more important - Ivan Vurnik (1884-1971), up to that time the leading figure of nationalistic architecture, completely changed his attitude. When in the same year he initiated his own seminar at the Faculty of Architecture in Ljubljana, the new ideas took root at the university. Except for Vurnik and Josip Costaperaria (1876-1951) (Fig. 1), who had both studied in Vienna before World War I, all the other protagonists were from a younger generation who began their studies after the war. It took a few years for them to finish their studies and establish themselves in society. As a result Modern Movement really appeared only by the end of the 1920s. Some, such as Ivo Spinčič (1903-1985)

(Fig. 2) and Jože Sivec (1896-1974) (Fig. 3) studied in Vienna with Peter Behrens. Others, such as Herman Hus (1896-1960) (Fig. 4) and Jože Platner (1904-1968) left Jože Plečnik and finished their studies with Ivan Vurnik. The group was complete when in 1931 Plečnik's first assistant France Tomažič (1899-1968) also left his professor and became one of the most interesting figures of the new movement (Fig. 5, 6, 7). In 1931 the first book "Dwelling" was published, and in the same year the magazine "Arhitekti" started (1931-1934). In this way the new ideas established their theoretical background. Before World War II seven architects from Slovenia worked for Le Corbusier, of whom only Feri Novak (1906-1960) began building before the War. The influence of the others was felt only later. The political situation after World War II permitted architects to continue with functionalism in architecture (Fig. 8). They profited from the quarrel between Tito and Stalin and avoided soc-realistic architecture.



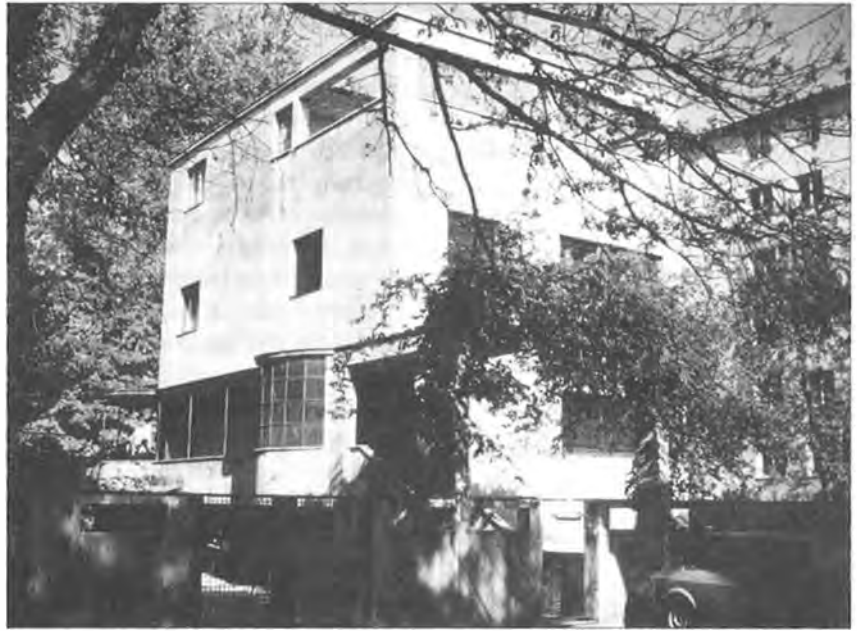
Villa Oblak is an outstanding example of Modern Movement in Ljubljana, architect: France Tomažič, 1932. The arch shows influence of Perret.



The so-called „Small Skyscraper“ in Ljubljana, design: Herman Hus, 1931.



Modern Movement continued after World War II, Edo Mihevc designed the first open-plan office building in Ljubljana in 1953.



Villa Grivec in Ljubljana, France Tomažič, 1934



The building in Miklošičeva in Ljubljana from late 1920s witnesses Costapera's study with Behrens.



„Dukič“ housing complex in Ljubljana, design: Jože Sivec, 1932-34.

Villa in Vrtača, Ljubljana, architect: Josip Costapera, 1931-32.

The Silent Architecture of Zagreb

Housing Estates built in Zagreb between the Wars

When one speaks about the "golden era" of Croatian architecture one thinks of the period between the Wars, of the 1930s.

Although the architecture of the Modern Movement left traces in several Croatian cities (for instance Rijeka and Split), Zagreb was certainly its most intensive and significant stronghold.

Until 1918 Croatia was an integral part of the Austro-Hungarian Empire. (1) Zagreb was an administration and manufacturing center before 1918, and later became an economic centre of Yugoslavia before the War. It took over the role that Vienna and Budapest held before for these parts. After it had attracted investors from different sides, there began the most fertile period in the history of building construction in Zagreb. Parts of the old center changed their appearance and on the outskirts new residential quarters were built, particularly representative in the eastern part of the town. It would be hard to imagine the characteristic panorama of the Zagreb of today without the public and residential buildings constructed during that period.

This modern Zagreb was built by a new generation of Croatian architects educated in Vienna, Prague, Dresden and Berlin, or in the Technical School opened in Zagreb in 1919. During the 1930s the Technical Faculty and the competitive architectonic

department of the Academy of Fine Arts were simultaneously active.

Some Croatian architects were students of leading European architects. They cooperated with them and brought to Zagreb the progressive spirit of pure functionalism. Although that period from today's perspective appears consistent, it was not a movement. They had common premises; they opposed conservative, formalistic, historicistic architecture; each one of the fifty creative architects that we today consider as bearers of those ideas was one of a kind. (2) We often say that during those brilliant 1930s we did not have individual geniuses, but that the whole generation of talented, energetic, ambitious and competent authors carried Croatian architecture. Thus, we inherited in Croatia a number of exceptional creations signed by different authors. A new concept, called "Zagreb School", appeared as a sum of diverse, and even divergent procedures.

Housing Estates

In the period between the Wars the local authorities and various companies tried to solve the acute problem of small workers' apartments by establishing colonies. (3) In the early 1920s for Zagreb's municipal authorities the important question was: to build housing estates (Siedlungen) with small low buildings or multi-story blocks of flats (Höfe) (4). The aim pursued by the building industry was to provide comfortable housing for a maximum number of people at minimal

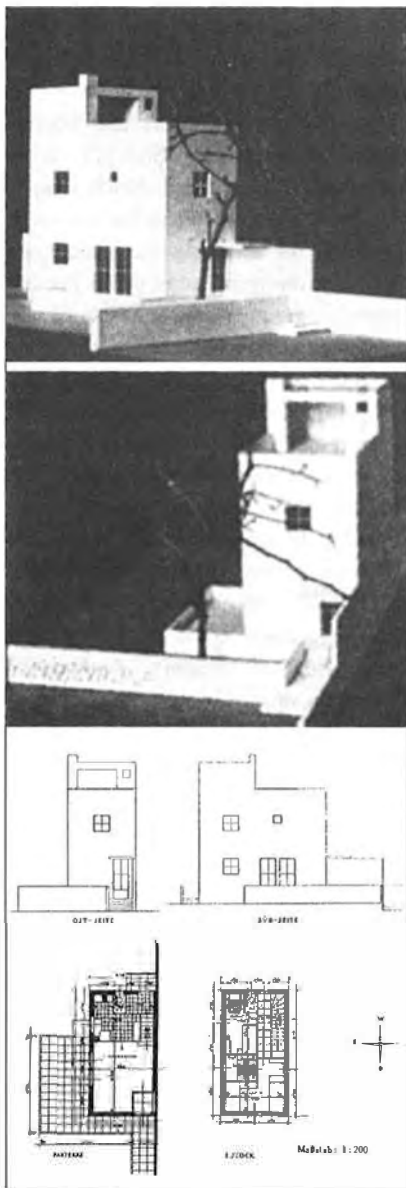
cost in terms of money and space. In the beginning this resulted in blocks of flats in the traditional style.

From the 1920s onwards, such housing estates were built in Stuttgart, Brno, Karlsruhe, Wrocław, Basel, Zürich, Prague, etc. Some countries embarked on social schemes, for example Austria(5) and Germany, designing large urban housing estates. At the same time a number of congresses all over Europe discussed decentralization, satellite towns, industrialization, the population and car boom. The housing estate was still poised between the use of prototypes and mass construction. The best European architects were preoccupied with functional and economical construction; the speed of the developments in this area and the success of some building projects led to the International Congresses of Modern Architecture (CIAM), in which Croatian architects took an active part. The Frankfurt Congress (1929), whose theme was "Housing for the existential minimum", was especially important in this context.

The progressive architectural trends almost immediately found followers in Croatia. From 1925 until 1935 the Zagreb School led by architect Drago Ibler (Poelzig's pupil) was at the forefront of architectural developments. The same period was marked by the activity of *Zemlja* (The Earth), a group of artists interested in social problems. From 1932 until 1934 the



Zagreb, The First Croatian Saving Bank Estate, arch. Zdenko Strižić, 1935



built in Zagreb. Urbanistically and architecturally more interesting estates were built in the 1930s. In them we find various urbanism theses and various types of houses, ranging from tenement buildings to small family houses, detached and semidetached houses, terraced houses and even some villas. In a modest way, in all of them the union of personal freedom and collective necessity are achieved. In some of them local modern architecture is at its best (*Cvjetno naselje* – The Flower estate, arch. Vlado Antolić).

The old regulatory plan for Zagreb adopted in the 1920s paid little attention to the outskirts of the city and the unauthorized building that was widespread there. The new regulatory plan of 1936 was the result of an international competition in 1931, and therefore in accordance with the contemporary congresses on "functioning of the city". The requirements of the competition particularly insisted on questions of traffic, zoning of contents, special treatment of the oldest city districts and green areas. (6)

Typology

The residential buildings in planned areas constructed in Zagreb between the Wars could be divided into several groups.

a) High-rise, multi-story apartment buildings of so-called "army-barracks type" are projects that use stereotype floor-

plan organization and a modest repertoire of facade design; most often these are one-room flats with walk-through kitchen and several auxiliary spaces.

b) Low-rise buildings of so-called "box-car type" are generally badly constructed temporary accommodation. These are simply rows of rooms without any auxiliary spaces, with common bathrooms.

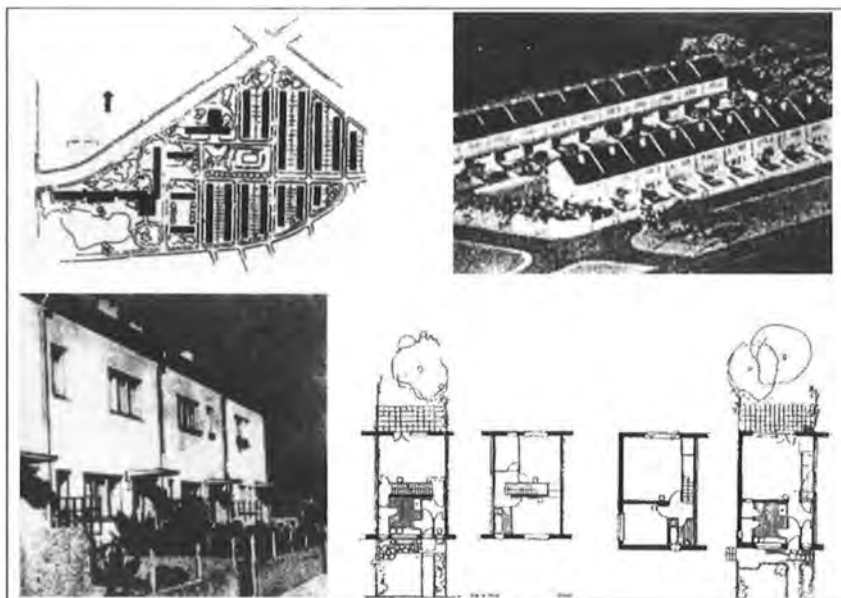
c) Terrace houses are much better designs, comfortable to live in. Most often these are two- or three-bedroom flats with two floors with accompanying small garden. Good examples are the Estate of Istrians and disabled (for refugees and invalids from the World War I) built in 1930 by architect Ivan Zemljak, and The First Croatian Savings Bank Estate built in 1935 by Zdenko Strižić. (Zemljak studied in Graz and Prague, worked in The Netherlands and had contacts with J. J. P. Oud. Strižić studied in Dresden and Berlin.)

d) Semidetached and single-family houses with several flats are rare examples of an interesting solution. Generally these are comfortable two- or three-room flats with bathroom and accompanying part of a garden.

Zagreb Working Group headed by Vlado Antolić and Ernest Weissmann designed workers' flats in the suburb of Zagreb. (Antolić studied in Vienna. He worked in Paris and was very active in CIAM. Weissmann was also an active member of CIAM, signatory of the Athens Charter and for a number of years assistant to Le Corbusier.)

But although modern trends and principles were present on the Zagreb architectural scene in the early 1920s, the housing estates built at that time cannot be described as an important form of architecture in Croatia.

Between the Wars some fifteen housing estates for tenants with low incomes were



Zagreb, Novakova Street, Street of villas – exposition of models, 1930

e) Family houses (Flower estate) are the best with regard to projects, and it is only because of its position in undeveloped areas away from the city centre that it belongs to the category of social housing. In fact they represent the housing culture of the middle class. Today even some embassies are situated there.

Construction of public buildings and the establishment of public services, though not according to initial projects and not during construction, follow the First Croatian Savings Bank Estates and Flower settlements. Regarding other public areas, some estates have joint yards and planted squares.

Although modern architecture was followed by new technologies of construction, this was not the case with this building type in Croatia. In Croatian building construction between the Wars the level of mechanization was low. An important innovation, of course, was the use of reinforced concrete construction in the Flower

Settlement. Although far from ideal urbanistic models, some of the examples referred to show that cheap, standardized housing construction, too, can have architectural and urbanistic potential.

At the same time, in just a few years, at the beginning of the 1930s a winding street of villas – Novakova – was built on hilly terrain. Like the exposition of models such as Weissenhof (7), it shows the diversity of solutions of more than ten different Croatian architects.

NOTES

- 1 Gerhard M. Dienes, *TransLOKAL - 9 Städte im Netz 1848-1918* (Bratislava, Brno, Graz, Krakow, Ljubljana, München, Pecs, Trieste, Zagreb) Stadtmuseum, Graz Austria, June - October 1996, catalogue of the exhibition
- 2 Tomislav Premerl, *Hrvatska moderna arhitektura izmelo dva rata - nova tradicija*, Zagreb 1989

- 3 Darja Radović, *The Railroad Colony in Zagreb...*, Scientific paper, Radović Instituta za povijest umjetnosti (Journal of the Institute of History of Art, Zagreb) 16, Zagreb 1992, p. 199-217 and Darja Radović Mahečić, *Local Authority Housing Estates in Zagreb between the Wars*, Scientific paper, Radović Instituta za povijest umjetnosti 17/2, Zagreb 1993, p. 141-157
- 4 Manfredo Tafuri, *Vienna Rossa*, Milano 1986
- 5 Adolf Krischanit - Otto Kapfinger, *Die Wiener Werkbundsiedlung*, Vienna 1985
- 6 The jury's 15 members included German and Czech representatives - Paul Wolf from Dresden and Josef Gočar from Prague. Fifty-two works arrived, most of them from Croatia and Germany. First prize was not awarded but this competition was used as a basis for work on a regulatory plan.
- 7 Jürgen Joedicke, *Weissenhofsiedlung Stuttgart*, Stuttgart 1989

Architect Raul Chorão Ramalho – An Everlasting Oeuvre

His life

Born in 1914 and working in Lisbon, Portugal since 1943, Raul Chorão Ramalho stands today as a major representative of his generation by virtue of both his cultural attitude and the coherence of the architectural language he practised.

He worked and designed most of its important and significant buildings, mainly from the 1950s to the 1970s, within the Modern Movement context in Portugal – and he is one of the oldest architects still to be actively engaged in the Portuguese cultural context.

The period in which he produced most of his works were difficult times in Portugal: both during and after World War II a dictatorship ruled the country and repressed its opponents, while there were wars in the overseas provinces after 1961. As a part of democratic culture, modern architecture had at that time a tremendous difficulty in asserting itself as a base on which to renew the cities, due to the conservative ideology and to repressive state actions. Only gradually did the modern language manage to take hold in the practice of building, until the democratic political change of 1974.

Nevertheless, Chorão Ramalho has produced a large number of modern works in

Portugal and in the most diverse and far-away places all over the world. His “out-door” projects were carried out in the Atlantic islands belonging to Portugal (Madeira and the Azores), in the former overseas territories (such as Macao, in South China), or at countries inheriting Portuguese cultural patterns, such as Brazil.

His main works

His works – most of them still extant and constituting a live part of urban places – have always shown a capacity for “clean”, orthodox and “straight” modern space. He instinctively adopted rational and functional ideas as a way to beauty and utility.

His large output ranges from public buildings to private enterprise plans. The following are some notable examples:

- The Restelo Commercial Centre. Within the Restelo General Public Plan in western Lisbon, dating from the 1940s, Ramalho defined an urban crossway based on four simple porticoed buildings (1949 -51).
- The “Império” Café, in central Almirante Reis avenue in Lisbon, designed within the “Império” Cinema building (from 1948-52) – a vast two-level open space connecting the street with an interior lower level, and using dynamic stairways and painted expressionist ceilings.
- Two public health administrative centers (“Caixas de Previdência”): one in central Setúbal (a small port and river-side city), another in the historical core of Funchal (the capital of Madeira). Both buildings were conceived around an interior “patio”, but the Funchal one is part of a larger plan, within a group of other buildings, including residential towers and blocks, and a small hospital (1964 – 69). The whole ensemble is very modern in its design, but nevertheless works well within the traditional fabric of the old city.

– The remarkable Pedro Nolesco High School, in the central city of the Macao territory in South China – a vast and “tropical” concrete ensemble, with gymnasium, classrooms, auditoriums and “patios”, presenting a balanced and climate-controlled design (from 1965 -66). The tropical-adapted concept of the ventilation window system ensures the smooth functioning of this building, today menaced with demolition as a result of a desire to renew the city.

– The Public Bank Department in Leiria city (north of Lisbon), the Viana do Castelo City Hospital (north of Oporto), and the Angra Health Administrative Center (in Angra city, in Terceira, one of the Azores). All of these buildings show a “strong” modern design and were built with a very expressive apparent concrete material in the 1970s.

– The Portuguese Embassy main building (Portuguese Cultural Centre) in Brasilia (1960s -the modern federal capital of Brasilia) on the vast South-American central plateau. Here he used lattice shadowing, patios and water effects to achieve refreshment and a calm ambience (from 1972).

In this building Chorão Ramalho designed a volume which we can access under the vast protection of the upper levels, using a street patio paved with traditional Portuguese limestone patterns. Large horizontal all around the building give a sense of protection, freshness and shadows – as they relate to small rectangular lakes and vegetation distributed along the building. In the upper level the offices are organized around a central patio, thus ensuring sunlight control and also allowing the feeling of contact with nature full expression as the main idea of this space.

As creator of such a vast architectural experiment, Chorão Ramalho certainly deserves both our respect and the international protection for his works.

James Ashby

DOCOMOMO Ontario, Canada

A Toronto Modernist: George A. Robb

A cursory international review of modernism reveals significant Canadian buildings designed in the 1960s by renowned foreign architects: Toronto City Hall by Viljo Revell, the U.S. Pavilion at Montreal's Expo' 67 by Buckminster Fuller, and the Toronto-Dominion Centre and Westmount Square both by Ludwig Mies van der Rohe. However, in recent years attention within the conservation community has begun to focus on the work of Canadian architects and their individual contributions to an emerging 20th-century urban landscape. While significant research in Canadian architectural history has been executed, comprehensive documentation of modernism remains incomplete.

George A. Robb (1924 – 1991) was among a new generation of Canadian architects who embarked on their careers in the years of dramatic change immediately following the Second World War. The 1950s and 1960s saw an influx of immigrants into the country and unprecedented economic growth which transformed the major urban centres. The Trans-Canada Highway opened, allowing a new freedom of mobility across the country. The St. Lawrence Seaway opened, enhancing the status of several cities as international commercial ports. In Toronto the new underground transportation system and air terminal signified the city's embrace of modernism and its rise as an international metropolis.

This paper presents initial research on the early career of one of the many young Canadian architects working in this con-

text, George A. Robb. His work is selected for two reasons: firstly, his story is a chapter in architectural history which remains as yet unwritten; and secondly, his work represents a personal struggle with both the universality and heterogeneity of modernism.

Architectural Education

George Robb left his home in Galt, Ontario in 1942 to begin his studies at the University of Toronto. At that time the School of Architecture was a fertile place for the exploration of modernism. Professor Eric Arthur, historian and modern architect, brought the best of contemporary international architecture to the school. In 1944, Robb and his classmates organized the School's first study tour to the USA to experience the new architecture which until then they had known only through photographs and drawings: Eliel Saarinen's Kleinhan's Music Hall, Philip Johnson's Cambridge house, and Walter Gropius' house in Lincoln.

Following the completion of his Bachelor of Architecture degree, Robb continued at the University as a part-time Associate Professor. Within several years and along with several colleagues, he was invited to present a paper to a government Royal Commission on the arts and letters. He took the opportunity to lash out at the status quo:

"Lacking the dynamic impetus of a young and growing country, lacking too the cultured taste of older civilizations, all but lost in the turmoil of immigration, Canadian architecture and more particularly government architecture follows a path of schizophrenic eclecticism, leaning heavily though impartially on a variety of ancient and antique styles suited neither in function nor aesthetics to the Canada of to-day."

It was not until four years later that Robb would have his first major opportunity to express his critique in the design for a public building.

An "International" Experiment

The 1954 Shell Oil Tower competition for a clock and observation tower at the fairgrounds of Toronto's Canadian National Exhibition was won by George Robb with William McBain, and this ex-

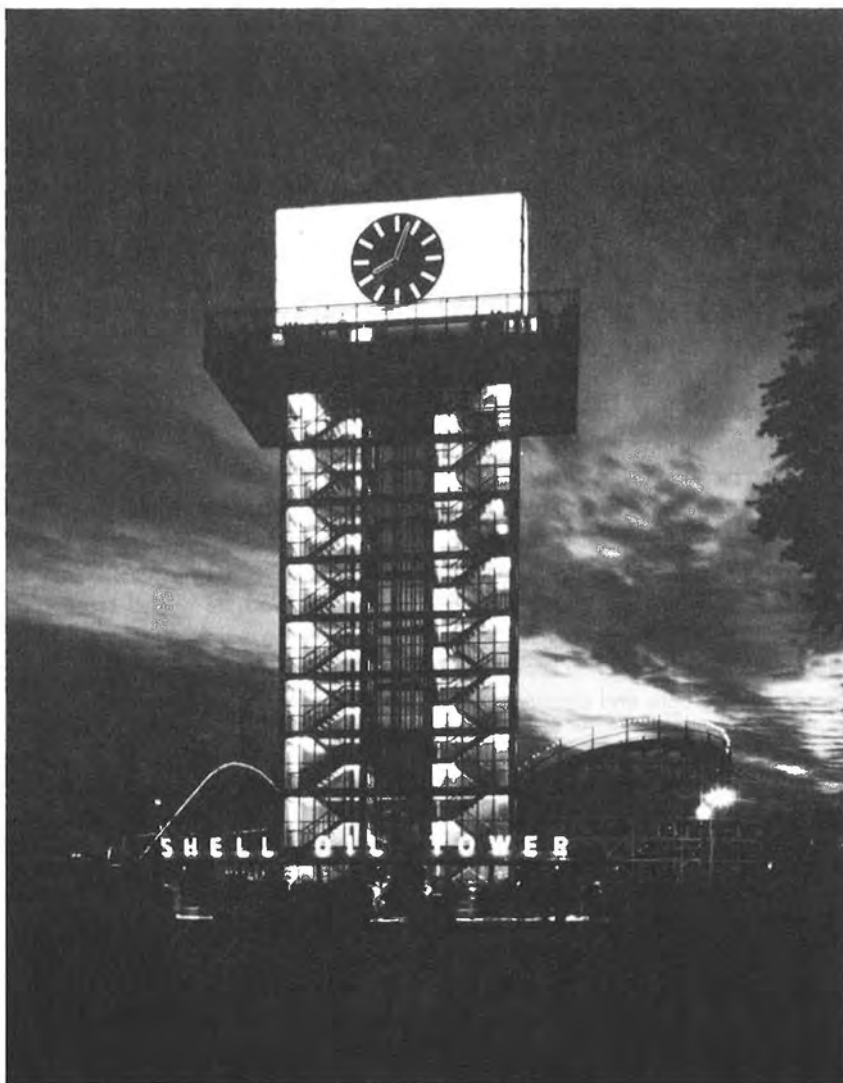
pressive entry was among the initial commissions which heralded the arrival of the Modern Movement in Toronto. Occupying a central position within the fairgrounds and forming an important axial relationship with the neo-classical Princes' Gates, the new tower acted as a visual landmark by day and an illuminated beacon by night.

The crisply-detailed steel frame and glazed panels revealed the interior stairs and lift which ascended to the cantilevered outdoor observation deck surrounding the clock. The tower was modest in size yet heroic in spirit. Robb later quipped that the Shell Tower was "an intriguing structure, built to convince several thousand people a year that 90 feet off the ground is a great height." In 1955 the welded construction challenged the existing building codes, while the tower's aesthetic challenged the city's conservative design sensibilities. The transparency and luminosity of the Shell Tower were a clear departure from the character of Toronto's historicist masonry towers.

In embracing the Modern Movement Robb and his contemporaries introduced a new form of expression to a city which had been reluctant to accept the international architectural avant-garde. The Shell Oil Tower prepared the city for subsequent modern buildings such as the twin towers of Mies van der Rohe's 1964 Toronto-Dominion Centre.

Regional Explorations

By the late 1950s Robb abandoned the steel and glass material palette of international modernism in favour of traditional materials such as wood, bronze and stone. His robust post and beam structures, while a contrast to mainstream Toronto architecture, shared similarities with the emerging "West-Coast style" in Vancouver. The west coast architects, including modernists Ned Pratt and Robert Berwick (both of whom had graduated from the University of Toronto prior to Robb), were developing a new form of domestic architecture particularly suited to the wet, lush Pacific coastal landscape. This work exhibited international influences from traditional Japanese construction, Frank Lloyd Wright's prairie work, as well as the Modern Movement in Europe.



Toronto, Ontario, Shell Oil Tower, 1955. Photographer: George Robb, W. McBain

Robb's commissions, for the most part, were for new buildings on Toronto's suburban frontier and included the popular new building types of the period: motor hotels, supermarkets, highway tourism centres, and suburban residences. While the west coast experiments may have inspired Robb to explore a regional variation of Modernism, he was also looking east to Scandinavia. While Robb was not well travelled, he was a voracious reader and a collector of architectural periodicals. He cited Scandinavian influences when he explored Nordic themes in his work for the Valhalla hotels.

Arguably the finest example of his rustic Canadian modern architecture is Robb's own summer house built amidst wind-sculpted pines on Lake Huron, north of Toronto, in 1964. The constructions on the small granite island consisted of the cottage

(a pavilion for daytime use), sleeping accommodation in tents on wooden platforms, and a dock. The cottage was described conceptually as a "private yacht anchored within a sheltered bay". It consisted of a structural frame of solid timbers perched on the granite outcrop. Its walls were entirely glazed with the exception of two small wood-clad appendages (washroom and storage). The gable roof was split at the ridge to provide a continuous skylight, and had wide eaves to provide a sense of enclosure within the glazed interior. Night privacy and illumination were achieved with cleverly-located exterior uplights aimed at the deep soffits. Interior spaces included a kitchen and sitting area. Large decks at the east and west ends offered additional space for dining and sunning. The elegant custom-designed interior furnishings included a teak and leather settee. These contrast with the

rusticity of the sleeping platforms in the forest nearby.

The rustic modern construction succeeded in heightening the experience of the dramatic northern landscape and in demonstrating the possibilities of a regional Canadian modernism.

Conclusion

Both Robb's Shell Oil Tower and his summer residence are projects which express parallel goals: the tower provided a platform from which to enjoy a panoramic view of Toronto and to contemplate the emerging skyline of the city; and the summer pavilion provided a platform from which to view the rugged northern island landscape and to contemplate one's relationship to it. The tower and the cottage also share similar qualities: transparency, luminosity, minimalism, structural expression, geometric rigour, and modesty of scale.

These fine buildings represent not only important steps in the development of George Robb's work but also important steps in the development of modern architecture in Ontario, Canada. Tragically, the Shell Oil Tower has been demolished. Robb's surviving buildings are not currently protected by legislation. The heritage conservation community has the dual challenge of continuing to document the story of modernity in the work of Canadian architects, while working to conserve the buildings which help to tell that story.

Architectural work and bibliographical datas of George A. Robb

- 1942-1946 Student projects at Department of Architecture, Faculty of Applied Science and Engineering: Railway Depot, Municipal Building, Hospital, Cinema and Publishing Plant, University of Toronto, Ontario
- 1946 Bachelor of architecture, University of Toronto, Ontario
- 1948-1984 Associate professor, University of Toronto, Ontario



Ontario, Canada, Summer Residence, Island B650, Georgian Bay, 1964. Courtesy of George Robb Architect Ltd.

1948	Coleman Residence, Thornhill, Ontario, constructed	1950's	Vitruvian Society member, Toronto, Ontario	1961-1967	Tourism reception centres in Sault Ste. Marie, Windsor, Ontario, constructed
1950	Royal Commission on National Development in the arts, letters and sciences participant, Ottawa, Ontario	1957-1958	Dominion Store, Stratford, Ontario, constructed	1961-1984	Valhalla Inn in Etobicoke, Ontario, constructed
1952	Certificate of practice issued by Ontario Association of Architects	1958-1959	Ascott Inn, Etobicoke, Ontario, constructed	1964-1966	Robb Residence on Island B650, Georgian Bay, Ontario, constructed
1953-1954	Palermo, Boyne, Sheffield & Trafalgar elementary schools, constructed	1959-1960	Beaver Lumber Company Headquarters, Clarkson, Ontario, constructed	1964	Lee Robb Elken Jung Architects establishes practice, Toronto, Ontario
1954	National Gallery Competition entry advances to second stage, Winnipeg, Manitoba	1960's	National Design Institute Chairman, Toronto, Ontario	1965	Featured designer in Canadian Interiors magazine, Toronto, Ontario
1955	Shell Oil Tower Competition winner with William McBain, Toronto, Ontario	1960-1962	Old York Lane, Toronto, Ontario, constructed	1967	Group One restaurants at Expo '67, Montreal, Quebec, constructed
		1961-1965	Guildwood Community Church, Scarborough, Ontario, constructed		

MoMo Industrial Architecture in Buenos Aires: Between Universality and Heterogeneity

A remarkable number of industrial buildings was built in Buenos Aires throughout the 1930s and 1940s.

The industrialisation process that had begun in Argentina around 1880 was accelerated by the international economic situation between the First and Second World Wars, with the aim of providing the internal market products formerly imported, and exporting to Europe elaborated goods (1). The programmes developed went from big factories with their corresponding administration areas, occupying a whole block, to middle- or small-scale industries, laboratories and other functional facilities settled in urban lots, sometimes – more than desirable – inserted in residential areas.

At that time MoMo theories were and established part of daily professional discussion, if not of everyday practice, thanks to the influence of European publications (*Modern Bauenformen*, *Bauhaus Bucher*, *L'Architecture Vivante* and *L'Esprit Nouveau*, among others), the deep knowledge Argentine architects had of the work done by MoMo "masters", and – last but not least – by the articles and work published in national reviews. *Nuestra Arquitectura*, a then recently created magazine – edited since 1929 by Walter Hilton Scott – carried out an energetic defence of international MoMo principles through the publi-

cation of the most outstanding national examples representing that tendency, and through articles that expressed the interest of Argentine architects in producing high-quality modern architecture. *Revista de Arquitectura*, a magazine edited by the Council of Architects – and formerly by the students of Architecture Centre – showed the concern of another publication to find a confluence point between the international tendencies and a local identity for Argentine architecture. This is most evident not in the work published in it, which covered all style and tendency, but in the editor's comments throughout those two decades. (2)

Industrial architecture was not left out of this discussion, which was mainly focused on the expressive aspects of architecture, as can be read in the articles and editor's columns in both publications, where regionalism and universality were terms usually questioned.

If expression was at the top of the agenda, technology was not a point to argue about. Buenos Aires has never had building material resources of its own other than brick (mud). In the 19th Century, when most of its buildings were to be built, it was usual to import manufactured bricks, iron frames, tiles, marbles, etc., together with the skilled workers to use them properly. Building companies had then acquired – through their previous experiences – solid skills in solving technical aspects of using

new materials. They improved their knowledge in the first decades of the, when policies to develop the urban infrastructure and public programmes were implemented in the city. Many of those companies were of German origin (3), and they introduced, among other things, knowledge of DIN regulations, Neufert and Kleinlogel handbooks, etc. Rational layouts, modular concrete frames, systematised metal carpentry and high-quality materials were employed. This would ensure the quality of the technical solution and the good condition which this architecture still enjoys, except when endangered by subsequent human action.

Nor was space to be a cause of disappointment. Industrial buildings are functional buildings by definition, so "form follows function" was beyond question as far as shape and volume were concerned. They were adapted strictly to programmatic demands. Criteria of better and healthier comfort standards, lighting, ventilation and so on were important for every tendency. There was a general agreement that progress ought to mean better living conditions for everyone in every activity.

The point was to make efficient, modern industrial buildings – but how? By joining the international tendencies' stream without hesitation, or by trying to develop a proper interpretation of MoMo theories? The crucial point was expression!



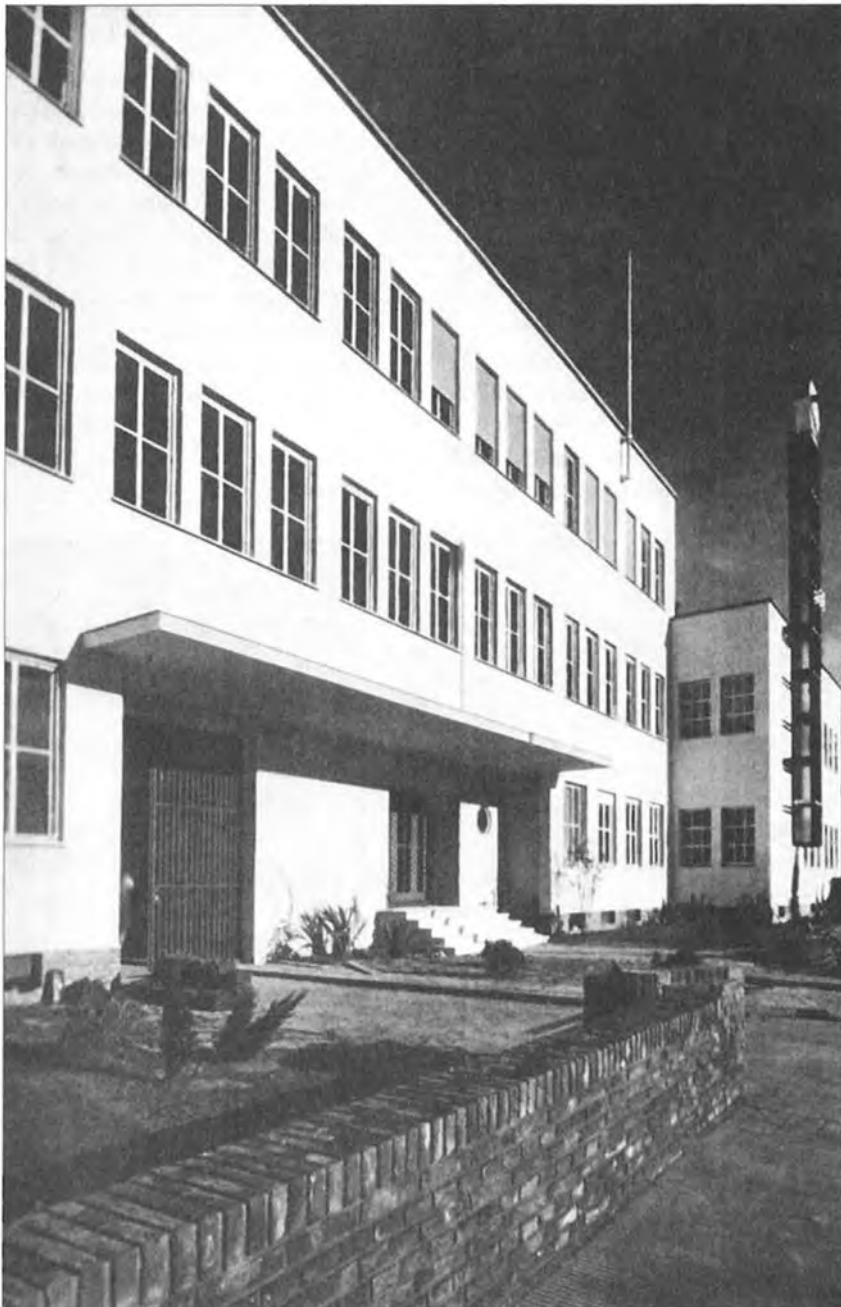
Promeco Laboratories (cca 1955) now Boehringer - Current state (1995)
Photographer: Stella M. Casal



Gileite co. (1942), Current state (1995). Photographer: Stella M. Casal



Quimica Schering, Current state (1996). Photographer: Stella M. Casal



Quimica Schering, Nuestra arquitectura 299, (September 1938)

And so, two alternatives were to be produced as far as expression in industrial MoMo architecture is concerned:

- the “white architecture”, influenced by former and contemporary European examples, and fully supported by *Nuestra Arquitectura*. Remarkable industrial examples were to be published in this journal to illustrate this international tendency in Argentine architecture (Y.P.F. Laboratory, by architect Jorge De La Maria Prins, 1943 – registered for the International MoMo Register, and actually some 25 km away from BA; Johnson & Johnson Argentina, by architect Lyman O. Dudley, 1938; Schering Chemical, by architect Gerhart Doerge and engineer Antonio Vilar, 1938; and many others). The reference to European and American typology and technical/expressive systems can be clearly seen in these works, with Art Deco influence evident in earlier and even contemporary examples (Dupont & Co. Laboratory, by architect Alejandro Christophersen, 1931, Chicklets Adams, ca. 1944)
- the “brick architecture”, developed by those who were influenced, perhaps, by the idea that brick was part of our building tradition since the very beginning of the city and so produced a lesser impact when settling an industrial building in a residential area than a nude white form would do. And perhaps, too, they were still under the enchantment of the “brick functional tradition” that so many handsome structures in the city provoked. At this time, however, brick was used just as an epidermis, covering the facade blind pan-

els. Even when a reference to Behrens' work could be made, it is difficult to establish a direct link. Strangely, these examples were not usually published in architectural reviews, though many of them are worthwhile (Mansfield Co. by SEPRA – architects Sanchez Elia, Peralta Ramos & Agostini – 1959, Gillette Co., 1942, ATMA S.A., etc.). This preference for using brick in industrial buildings can be followed from these early examples to contemporary ones, like the remarkable Hoechst Chemical, by architects Aslan & Ezcurra, 1992.

Still, both solutions expressed the concern of professionals when inserting an industrial building into an urban landscape. The effectiveness of each proposal is currently being reassessed now that many of the buildings have lost their original function and need adaptive re-use actions in order to survive, together with their cultural message, in a physically and socially different environment.

The examples mentioned above, (apart from ATMA S.A., which was unfortunately demolished recently) proved to be efficient in adapting themselves to new requirements. "White" factories were able to keep

their original function in some cases, for instance Schering Chemical or Johnson & Johnson, which in its original layout included the possibility of enlarging the building, which was in fact done a few years ago. In other cases, they were successfully adapted to new uses with little change, as in the case of Y.P.F. Laboratory, which is currently being used as laboratory by the University of La Plata, with almost no modification. And there are still other remarkable examples, such as the textile factory Manufactura Algodonera Argentina, which are waiting for a better destiny than that of their current decay and abandonment. "Brick" factories had a varied destiny, too – from the demolition of ATMA S. A. mentioned above to the interesting rehabilitation of Mansfield Co. factory by the Telecom Argentina Co. to host technical facilities and offices in recent years.

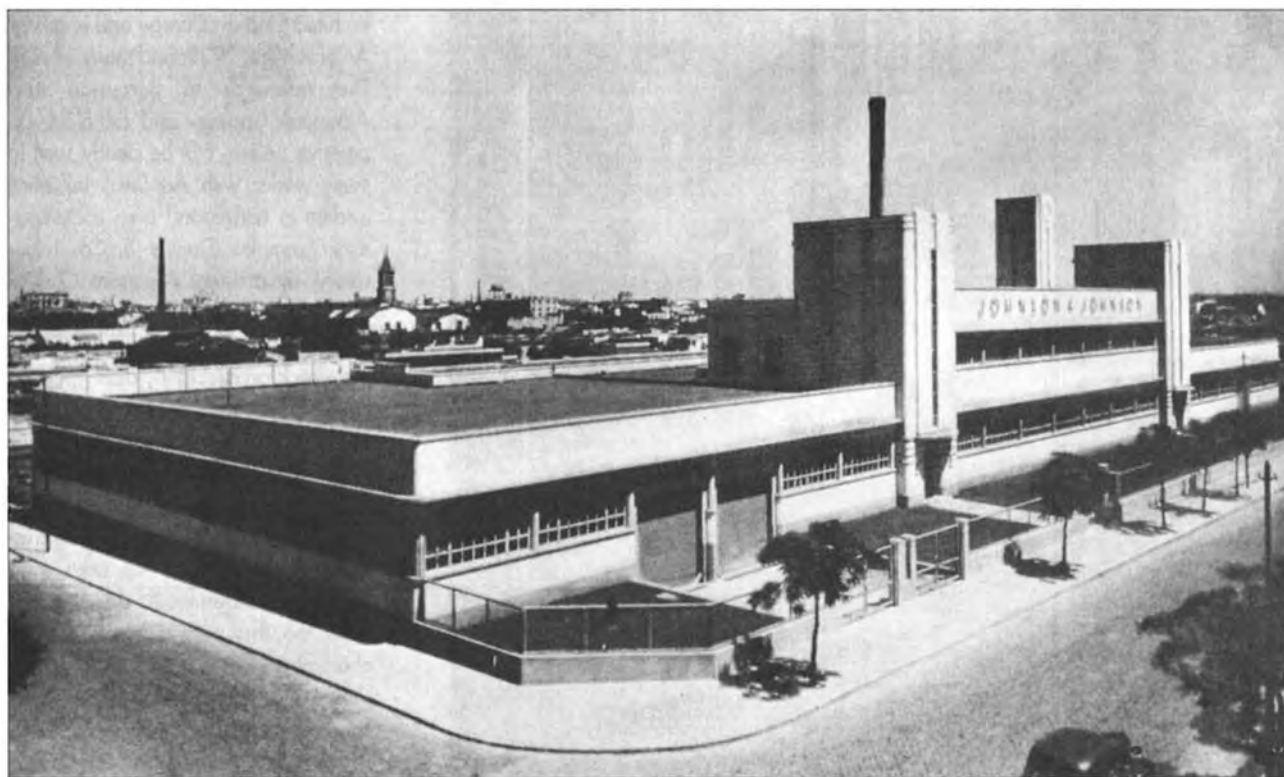
But "white or brick", both share a high-quality execution – due to technology and materials employed – that has allowed them to reach the end of the in remarkable condition.

For public opinion both expressions are considered as equally representative of industrial architecture of one of the brighter periods of that activity in the city. For professionals, "white" factories are outstanding and appreciated examples of MoMo

architecture but, even so, traditional brick seems to be more enticing – and not such a difficult challenge – when the aim is giving them a new use.

NOTES

- 1 A perceptive description of this process – rather simplified here – can be found in: Alfredo Irigoin, *La Evolucion Industrial en Argentina (1870 – 1940)*, Libertas #1, Buenos Aires, Oct. 1984.
- 2 It is interesting to compare both points of view through some articles: *Nuestra Arquitectura*: Wladimiro Acosta, *Arquitectura Contemporanea*, Jun. 31 (p. 920/ 21). Staff, *Edificio de la Quimica Schering*, Sep. 38 (p. 299/302). W. Hilton Scott, *Las Industrias y los Servicios Sociales*, Jul. 44 (p. 238/39). *Revista de Arquitectura*: Jose M. F. Pastor, *El Pasado, la Arquitectura, y el Futuro*, Jan. 44(n/ p.). F. de Achaval, *Hacia una Arquitectura Argentina*, Apr. 44 (p. 135). F. de Achaval, *La Tradicion de que Hablamos*, Oct. 45 (p. 379). J.M.F. Pastor, *Arquitectura Moderna y Arquitectura Nacional*, Jul. 44(p. 175)
- 3 The most important (according to Mabel M. Scarone, Antonio U. Vilar, Buenos Aires, IAA, 1970): *GEOPE - Holzmann & Goedehart*, *Ways & Freitag*, *Siemens Bauunion*, *Gruen & Billfinger*



Johnson & Johnson, *Nuestra arquitectura* 2, (January 1938)

Bandung and the Manifestation of International Style

A conservation plan with a vision

The city development creates convenience and satisfaction for the people who live, work and visit the city of Bandung. Investigating the past helps to provide us with an understanding of the foreign influences which have shaped the city. However, the whole city area, and specifically the city centre, presents a wide range of preservation problems. The growing pressure of peoples' needs, and development activities of building construction in the inner city, create a demand for change and building demolitions. The preservation of the architecture of the modern movement faces anarchistic accidents; some building are not protected against decay and will not escape demolition.

The major construction in the historic district was as low-rise building. In contrast, the Bandung city centre area will no doubt become an exciting skyline, with high-rise buildings concentrated around the Great Post Road and Jalan Merdeka.

The many historic buildings are testimony to the social, cultural and religious life of a city made to last over a great period of time. It is a record of the achievements and changes over time related to events. The buildings have to be repaired when they wear out and replaced when they are no longer useful. Varied destructive influ-

ences act with differing impacts upon the various materials. Our modern environment, air pollution and fire, in particular, also contribute to the destruction and losses of our architectural monuments.

We have to provide careful urban planning and a design vision for this old city district. The government Conservation authority must complete a Conservation Master Plan for the city. A Central Area Conservation Plan, as an integral part of urban planning, must address the need for balanced development with the right mix of old and new buildings. Closer attention to conservation must be paid to ensure the "sense of time and place" and preserve Bandung's distinctive city identity.

It is necessary to find new conservation strategies and actions to protect the old city centre. There is a need for model projects in order to achieve the greatest possible success using means already available. Particular attention should be given to the rapid destruction of the old city centre. The threat to our cultural heritage has been recognized. Research and actions are being pursued in many different ways and in many different areas. No time must be lost in translating this knowledge into action!

Historic buildings are an important factor influencing modern artistic expression. The ground work has been laid in the high education levels set in preparing the young generation, a generation that loves the integration of old historic buildings into new environments. An important aspect is the training of specialists who are acquainted with the specific conditions of the city. An exchange of experiences is essential in efforts to answer questions and to find appropriate solutions to conservation problems. This must be accomplished with the community and the government in order to produce a new Conservation Commitment.

Modern architecture

The modern architectural style was popularly recognized predominantly through manifestations of a revolutionary 20th-century character. The development of this new modern stream could be divided historically into three different phases as follows: first was a complex of characteristics of architectural forms developed after World War I, a period of finding a local modern archi-

tectural style and reusing building forms of the past, an amalgam of design expression inspired by various indigenous architectures and the modern design philosophy. The second phase, commonly known as the International Style, occupies the end of the interwar period, supported by new modern technology; and the third phase begins after 1945. Among those pioneers of the International Style who produced some important buildings in the city of Bandung are C.P. Wolff Schoemaker (1882-1949) and A.F. Aalbers (1898-1961).

C.P. WOLFF SCHOEMAKER and his last masterpiece.

In the modern period man began to use reinforced concrete for building construction purposes. It was a medium full of creative promise for the skilled technician. Artists and architects spent a good deal of time exploring the existing ways of using concrete for modern buildings.

The buildings chosen are the best examples of unique buildings found in the city, buildings distinguished by, for example, having spatial organisation as formative symbolic ideas in their design solution. They constitute a collection of relevant vocabulary of outstanding forms of modern architecture produced between the World Wars.

Among the architects responsible for such work was C. P. Wolff Schoemaker. Born in Banyubiru, East Java in 1882, from 1914 he worked for years as the Director of Public Works in Batavia (Jakarta), and also as a professor at the Bandoeng Technische Hoogeschool, known as the Bandung Institute of Technology. One of the best architects of the period, he was the most productive architect in the city of Bandung between 1917 and 1938. He designed the Military Palace, two churches, a mosque, a hotel, theatres, shop-houses and many villas.

For his last design, the Villa Isola, he exploited modern concrete architectural concepts. This, his most famous masterpiece, was designed in 1938 and has a strong formal freedom and a sense of architectural symbolism. There is no doubt that he exhibited the most coherent modern plastic building in the period. This is a sculptural approach to architectural design, a modern expressionist concrete architec-



Villa Isola, built in Bandung in 1932, designed by C.P. Wolff Schoemaker

ture with a sophisticated, dynamic and plastic organization of interior space. The curvilinear space visually marked by a greater simplicity and unity has a similar language to that elaborated in Europe.

A.F. AALBERS and his modern streamline buildings.

Another architect who designed streamline buildings in Bandung before the Second World War was A.F. Aalbers. He

was born in 1898, and completed his architectural studies in Rotterdam, before going to Java in 1928. The period between 1931 and 1940, when Aalbers was associated with R. A. de Waal, is known as the period of the Modern Movement, which also developed in Holland as the *Nieuwe Bowen*.

Aalbers designed large numbers of buildings in Bandung, among them a large hotel, office buildings and villas. The modern

streamline design of the Savoy Homann Hotel – built in 1938 – was his last and largest project. The streamline form of buildings originated in aerodynamic experiments. A plastic, voluminous form with rounded nose and shape were thought to provide the perfect foil to air flow resistance, resulting in new and modern forms.

A futuristic streamline shape symbolized the status of a glamorous lifestyle in the studied simplicity of modern architecture. With flat roofs and smooth curves, buildings designed by this purist architect were adorned by horizontal bands of low relief. The modernist building rises like a temple in the city led by A. F. Aalbers.

The problem of preservation

The playfulness of architects with the modern medium of cement is in itself enough to make it clear that they, unlike their predecessors, never thought of their buildings lasting forever. No one knew how long concrete would last, since it was a new material.

The architect was having too much design fun and to think less of future conservation problems – and many dropped the problems of conservation and preservation in our laps.

Bank Pembangunan Daerah, 1936 (left)
Savoy Homann Hotel Bandung, 1938 (right)
A.F. Aalbers & R.A. de Waal A.F. Aalbers & R. A. de Waal



Dietrich W. Schmidt
University of Stuttgart, Germany

The Bloch-Tank House in Stuttgart by Bloch & Guggenheimer. Modern Architecture Reshaped after 1933 into a Traditional "German Home"

"Weissenhof ideas" versus "Biedermeier feelings"

After World War I in the young Weimar Republic architects, who welcomed the new republican society with greater enthusiasm than the conservatives did, wanted to draw the architects' attention to the discoveries of other disciplines, such as medicine, hygiene, sociology and technology. So this knowledge changed the designs very visibly: larger windows, sun terraces and balconies opened to the south. New ground floor patterns were required to render cross-ventilation possible.

In terms of the *sociological aspects*, those progressive architects aimed at improving living conditions in general; they wanted to house the poor like other people in more hygienic and humane quarters than before.

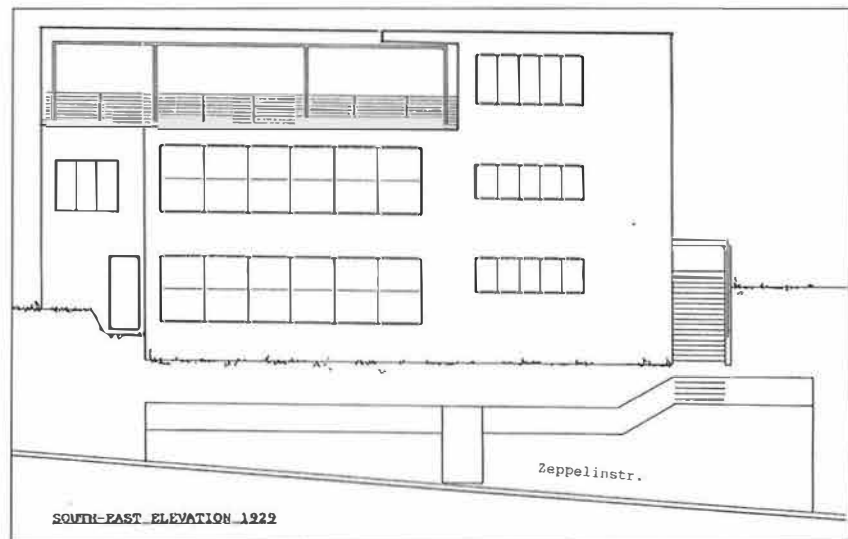
Regarding the *technological aspects*, these architects tried to make use of the achievements of industrialized fabrication. And these were not to be hidden: material equity was a key word of the time.

With regard to *formal aesthetics*, ornamentation was denigrated as superfluous addition (A. Loos). At the root of this attitude lay a *moral* conviction that demanded openness and transparency. And last but not least, this architecture was meant to *contrast with* the surrounding nature as a clear product of culture.

The *function* of the building organism required a new design method: instead of dividing any given cube by means of partition walls, individual space units were accumulated to create a differentiated building volume, thus expressing the complexity of the house.

This new way of understanding architecture as demonstrated in the Weissenhof colony fell on good ground in Stuttgart; about a dozen architects adopted these principles, among them the Jewish architects Oscar Bloch and Ernst Guggenheimer.

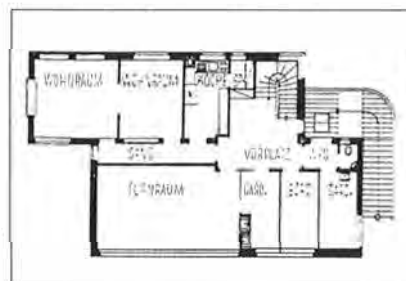
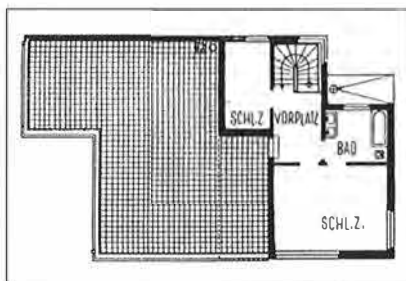
However, the majority of architects stuck to their traditional convictions. They became the winners when the Nazis gained power in 1933. Among them it was Paul Schmitthenner (4), professor at the Stuttgart Technical Highschool since 1918, who had an outstanding influence as teacher, member of the party and speaker of the "*Kampfbund für deutsche Kultur*" (5). As early as 1934 he declared: "These buildings of the *neue Sachlichkeit* with their bloodless and make-believe cleanliness of the machine, prostituting the will of essentiality, will no longer come into being in the new Reich." (6) Schmitthenner did not hesitate to stigmatize the modern movement even with political terms: "Bad enough, that in the last years (...) this bolshevist spirit could expand, calling itself *neue Sachlichkeit* and erecting bad houses of exorbitant expense and international disre-



House Bloch-Tank, South-East Elevation, 1929



House Bloch-Tank, Stuttgart, View from the South, 1929



gard.”(7) Generally traditional in his thinking on cultural affairs, he desired the return of a *Biedermeier* feeling and condemned the rational intellect of the Bauhaus: “To this rationalism, this practical intellect our time was so proud of, decency and dignity were sacrificed too frivolously, but not only in the field of building. The indecent and the indecorous, blood-and-thunder literature, negro music, sentimental movie-kitsch, distorted spasms of thinking as theatre, sensation at any price – all that was defended in principle and encouraged with a calculating intellect. (...) To the most apparent issues of this subtle intellect belongs the so-called *neue Sachlichkeit* in the field of building, the last rank growth on the manured tree of German architecture.”(8) Schmitthenner’s paragon of the German home was the garden house of Goethe in Weimar (9), and lots of similar-looking “country houses” were built by the so called “*Stuttgarter Schule*” (Stuttgart school of architecture 1918-45). It was a difficult task for the Modern Movement in Stuttgart.

The commission of the Bloch-Tank house, 1929

On May 29, 1929 Mrs. Alice Tank, the wife of a dentist and later on of the architect Oscar Bloch (10) commissioned the architects Oscar Bloch & Ernst Guggenheimer to build an “orthopaedic-gymnastic institute” on the Zeppelinstraße 32 in Stuttgart. This three-story building on the hillside (11) of the north-western part of the city with a beautiful panorama view over the Stuttgart valley contained in its south-eastern part (5,9 x 14,4 m) the gymnastics rooms for the education of gymnastics teachers; the private rooms of Mrs. Tank were situated in the north-western part (4,8 x 14,6 m). The visitor reached the flat-roofed entrance on the rear side over an open stairway bent around the north-eastern edge of the house. Its typically “stream-line”-curved form with the iron-pipe railing turns this functional element into an aesthetic one of high elegance and recalls the curved stairway of Scharoun’s house no.33 of 1927 in the Weissenhof housing estate. From the small vestibule in the first floor you reach the office, dressing-rooms and the

upper gymnastics room looking to the street on the south-eastern side; a narrow corridor leads to the private living rooms and kitchen looking to the garden on the north-western side. An inner staircase leads up to a large sundeck for open-air gymnastics, partly covered by the flat roof; this terrace on the top of the house with the characteristic iron-pipe railing resembles the same element of the Weissenhof house no.16 by Walter Gropius. On the same level in the second floor are two bedrooms with the bathroom; the same staircase leads also down to the second gymnastics room of the ground floor, which can be connected with the boxing-room. Also the shower, heating room, laundry and storage rooms are located here in the basement.

The plain facades of smooth white plaster show the different purposes of the rooms behind it: The great gymnastic rooms with their large windows need more light and ventilation than the smaller office or dressing rooms. The staircase gets light from a corner window over two stories. So the distribution of openings in the surface, though asymmetric, has well-balanced proportions. The terrace bringing together the inside and outside of the house combines natural landscape with the civilized living sphere. The challenge of the time was light, air and sun; especially for a “fitness studio” it was important to show this modern standard of hygienic living. The gymnastics teacher Alice Tank referred to the ideas of the *Lebensreform* stressing sport activities in the open air; being married to a medical man she undoubtedly knew about the discoveries of medicine concerning hygiene and healthiness from more oxygen and ultra-violet rays. So this knowledge was put to use in the architectural planning.

The construction system put together conventional masonry walls and modern reinforced concrete for the floors and the roof, the latter being covered by two layers of roofing felt and three coatings of bitumen.



House Bloch-Tank, South-East Elevation 1938

The changes after 1933

The building was completed in 1930 and kept the designation "orthopaedic gymnastics institute" until 1939. (12) However, in November 1935 a "Jewish Sports School" is established in the building according to the new directions of the ministry of cultural affairs. (13) Education is supervised by the *Reichsvertretung der Juden*.

Plans of the new owner, architect Theodor Kummerer, dating from September 10th, 1938, (14) show how the up-to-date sports facility was converted in 1939 into a conventional dwelling-house. The entrance is changed from the north-west to the south-east side and decorated with an arch of sandstone, as in medieval castles. The gymnastic rooms are converted into dwellings, as is the sundeck. So the freely arranged space units of the differentiated building volume defined by functional necessity were turned into one simple box-like cube. Now instead of the flat roof a steep hip roof could be put on top of the house. In the facade small windows of the same size with wooden shutters are now distributed symmetrically. The interior no longer shaped the exterior as Doesburg had demanded. (15)

So the elegantly terraced modern building organism nine years later becomes a romantic country house like the conventional buildings in the neighbourhood. The reasons for this change are to be found in the climate of hatred of functionalism. In Stuttgart it was not only Schmitthenner who traduced the Modern Movement. Among others such as Paul Bonatz, Felix Schuster (16) seemed to be the "grand-inquisitor" of the architectural reformation. He reviled the "wrong track of the *Neue Sachlichkeit*", "witnesses of a deviated liberal building epoch" and the "sin of the New Building" with "oriental flat roof". (17)

It was the triumph of traditional interpretation of architecture and racist understanding of culture over the idea of modern living in a free society. The reestablished old world of *Gemütlichkeit* had substituted the *Lebensreform* of modern times.

Smaller alterations of the building by Kummerer date from March 1939 and July 1950; in June 1969 Mrs. Lydia Kummerer

commissioned the architect Reiner Serve to change the building for the last time. The general impression of a bourgeois-German country house remains untouched.

Bloch & Guggenheimer: works and biographical notes

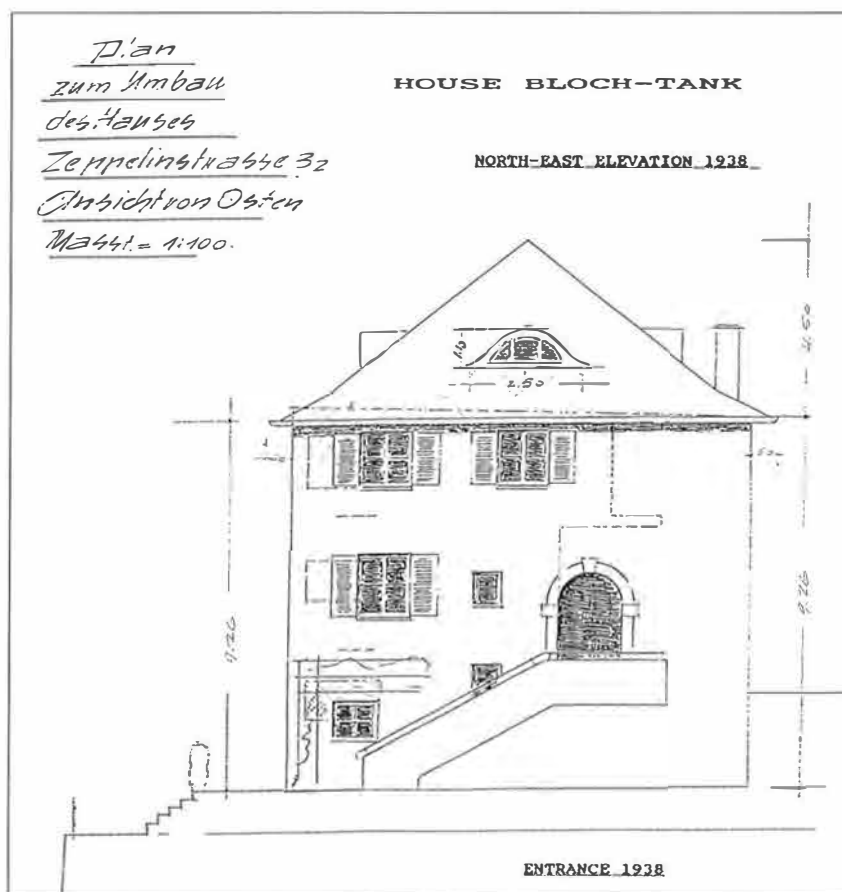
The atelier of Bloch & Guggenheimer was founded in 1909 in Stuttgart. Two industrial buildings, a Jewish orphanage in Esslingen and a Jewish home for nurses in Stuttgart, were realized up to the outbreak of World War I. After the war the architects built the Synagogue in Schwäbisch Gmünd, the housing estate "Eiernes", the chemical laboratories of the town and the Dr. Oppenheimer villa in Stuttgart. In 1925 they designed the monument to Jewish soldiers killed in World War I at the Prag cemetery in Stuttgart. (18) Between 1930 and 1933 they built seven modern homes on the Stuttgart "Killesberg"; this ensemble of private residences in Cäsar-Fleischel-Str., Hauptmannsreute and Wilhelm-Busch-Weg was nicknamed "little Palestine", because not only the architects but also the commissioners were Jewish. In contrast

with the badly remodelled Bloch-Tank house, the Frankenstein house of the same year in Bopserwaldstr. kept its original shape. The last project was the Jewish school of 1935 in Hospitalstr.

About Oscar Bloch's life little is known. He lived from 1909 to 1934 in Stuttgart and was responsible for the practical and economic work in the atelier, whereas Ernst Guggenheimer did the design work.

Ernst Guggenheimer was born in 1880 in Stuttgart. He was educated at the Friedrich-Eugens-Gymnasium and studied architecture from 1898 until 1901 at Stuttgart Technical Highschool. After graduating he worked in different ateliers in Kassel, Berlin, Hamburg, Luzern/Lucerne and Manchester. In the years before World War I he was teacher at the Stuttgart School of Architecture.

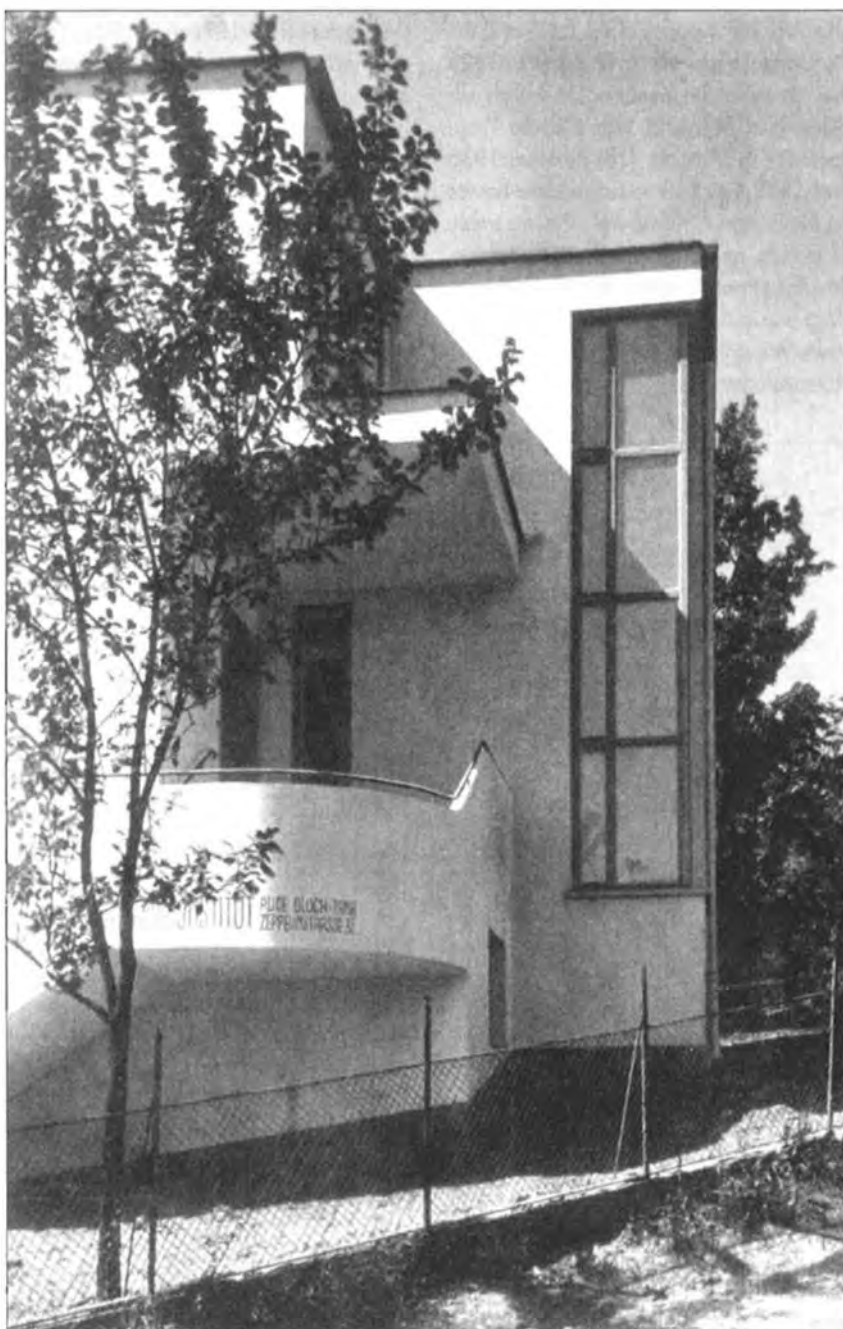
Not being liable to military service because of an ear complaint, he served as a volunteer in the German army from 1915 to 1918.



House Bloch-Tank, North-East Elevation 1938

After 1933, when the BDA (19) was dissolved, he was not transferred into the Nazi organisation *Reichskammer für Bildende Künste* because he was Jewish, which practically meant that he could not continue his profession. So his increasing health problems were accompanied by financial ones and he had to sell his house. From 1937, under supervision of the Gestapo he built some Jewish Ghetto buildings (20) and in 1938 he was cynically forced to clear the burnt down Stuttgart synagogue. From 1942 he had to work as an unskilled worker. After being divorced from his Aryan wife Anni, deporta-

tion to a KZ threatened; twice he escaped from being sent to Theresienstadt because of his sickness. Finally he found refuge in Untertürkheim. (21) He and 46 Jewish citizens of Stuttgart (out of formerly 7,000) escaped the Holocaust, though staying in Germany. In 1945 he again started working as an architect, was a member of the new constitutional assembly and erected among other buildings the new Stuttgart synagogue. In 1957, at the age of 77, he retired and in 1959 he was honoured by being made professor of the TH-Stuttgart. He died on September 12th, 1973 in Stuttgart.



House Bloch-Tank, Stuttgart, Entrance from North-East, 1929

NOTES

- 1 Paul Schmitthenner, *Bauen im neuen Reich*, München 1934, p.?
- 2 *ibid.*, p.?
- 3 *ibid.*, p. 23
- 4 1884-1972, member of the NSDAP from July 1933; cf. protocol of Spruchkammerverhandlung (hearing of NAZI cases) March 14th, 1947, p.3
- 5 Chauvinist organization for German culture, founded in 1929 by Alfred Rosenberg. Schmitthenner was nominated in 1933 "Reichsfachleiter für bildende Kunst".
- 6 Paul Schmitthenner, *Baukunst im neuen Reich*, München 1934, p.24
- 7 *ibid.*, p.23
- 8 *ibid.*, p.9
- 9 Small simple timber house from the 17th (!).
- 10 Swiss architect of Jewish belief, worked in a partnership with Ernst Guggenheimer from 1909 in Stuttgart; went back to Switzerland in 1934, died 1937.
- 11 Inclination 15 %
- 12 cf. *Stuttgarter Adressbuch*, Stadtarchiv
- 13 cf. Maria Zelzer, *Weg und Schicksal der Stuttgarter Juden* (Way and fate of the Stuttgart Jews), Stuttgart 1964
- 14 Approved by the Stuttgart board of building affairs on October 4, 1938 (consulting architect: Paul Heim)
- 15 See "De Stijl", 1922. (Quoted from H. Jaffé, *Mondrian and De Stijl*, Cologne 1967)
- 16 Professor at the Stuttgart school of architecture and editor of the *Schwäbisches Heimatbuch*, studied 1897-1901 (together with Ernst Guggenheimer!) at the Stuttgart Technical Highschool
- 17 F. Schuster, *Wiedergutmachung von Bausünden* (compensation of building sins), in: *Schwäbisches Heimatbuch* 1939, Stuttgart, p. 133-37
- 18 Paul Sauer, *Die jüdische Gemeinde Stuttgart in den Jahren der Weimarer Republik* (The Jewish parish Stuttgart in the years of the Weimar Republic), in: *Zeitschrift für Württembergische Landesgeschichte* 1992, p.333
- 19 Bund Deutscher Architekten (Union of German Architects) founded in Frankfurt a.M. 1903, reorganized 1948
- 20 Homes for aged Jewish people near Heilbronn and in Stuttgart
- 21 M. Zelzer, *ibid.* (see no.13), p.263

Lunchtime in Sliač – Spa

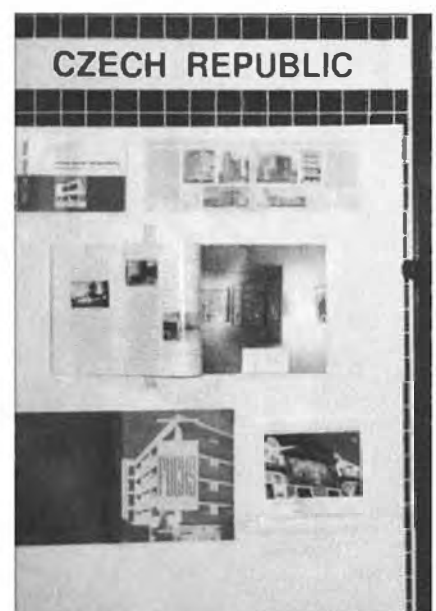
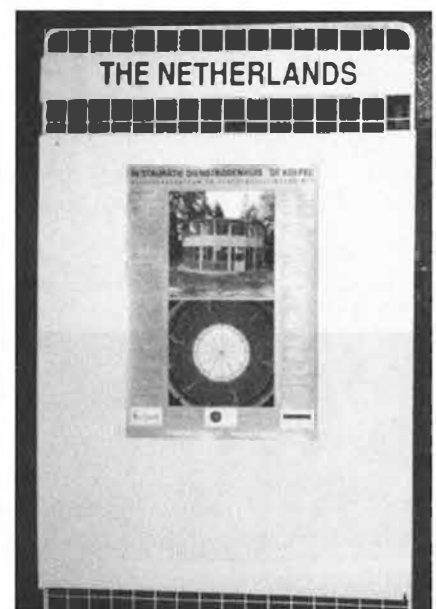
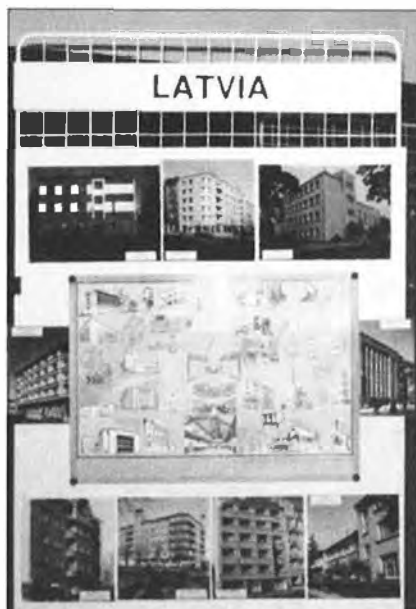


Thursday, September 19, 1996

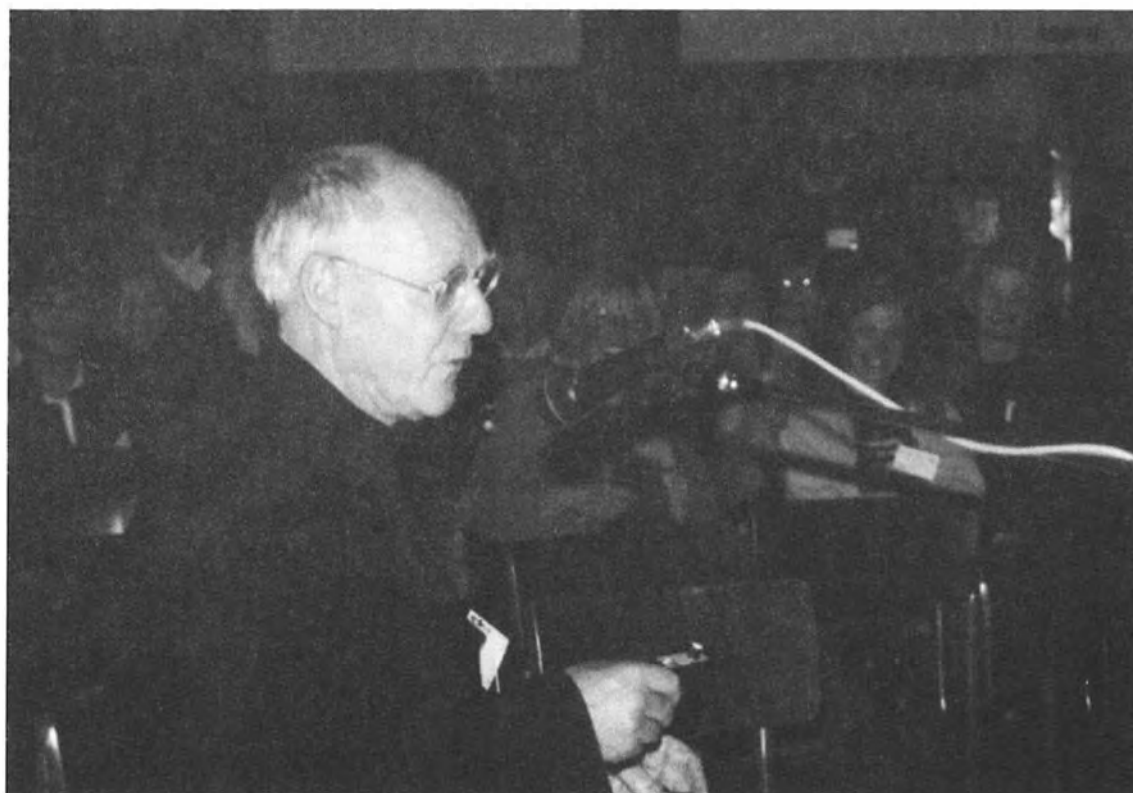
Cinema Hall

Poster Exhibition

Selection of exhibited posters



Debate on the Main Theme: Universality and Heterogeneity



Allen Cunningham (chair of the debate, UK)

SLIAČ

THE SPA

The spa emerged in the community of Rybáre which was originally the fishing settlement of Zvolen castle, on the left bank of the Hron. The earliest mention of the thermal waters dates from 1243, and

it is later referred to in connection with a visit by king Matthias Corvinus and his wife. At the beginning of the 18th century Zvolen county appointed a spa manager and constructed built the first build-

ings. In the 19th century these increased in number and a small spa town emerged where leading figures from the arts and politics came for treatment. After World War I the Czechoslovak state took over the spa and expansion continued, notably with the realisation of the Palace building. In the years 1935–1937 a general reconstruction of the mineral springs was carried out, and since then the spa has been supplied by a single source of thermal water from a depth of 59 metres.

PALACE SPA HOUSE

I. Restaurant part: design 1925 – 29, execution 1927 – 31

II. Hotel part: design 1932, execution 1931-37

Architect: Rudolf Stockar (1886 – 1957)

The Palace spa house is no more than a torso of Rudolf Stockar's quite extensive design. Stockar began work on the project in 1924. In 1929 he prepared the regulation plan for the spa, the spa house, land preparation, etc. All that was built was the Palace spa house complex (in two stages), the Slovensko Hotel and part of the spa house and services courtyard, the last, however, showing no distinctive signs of the architect's signature.

Stockar began to implement the design of the restaurant (right-hand) part of the building after being successful in the competition of 1924. This design had to be modified during execution in 1929 as a consequence of a commission for the continuation of the building with a hotel part. The result was the 240-metre-long horizontal of a functionalist building which we perceive today as a whole and which has become the main building of the spa compound. Both the architectural and functional effect of the Palace building remain to this day unique and convincing. Stockar's bold concept respected and complemented the natural scenery and park setting of the spa slope. The building's horizontal line was originally supposed to have two dominant vertical fea-

tures (a raised section above the restaurant part bearing the name of the spa, and an unfinished vertical over the entrance to the hotel). The composition draws on alternating open and closed spaces – whether courtyards, colonnades, terraces or balconies – resulting in an ideal unification of exterior and interior (originally the building was not intended to operate fully during winter).

The building was deployed on an incline, with a difference of seven metres (two storeys) between front and rear facades. It is protected against subsidence, passive earth pressure and damp from the ground – no small problem in an area of springs. Its construction system is based on a reinforced concrete mono-lithic skeleton on the Takebey model (the execution was by the local firm of Seehof and co.). The right-hand part of the building is at its highest seven storeys: from the rear ground level, however, only the ground-floor colonnade is visible. Two basement floors are open to the southwest with a varied composition of colonnades, terraces and garden plateaux. Here are concentrated the canteen, coffee bar, the theatre and film auditorium (originally also a bar and wine bar), administrative

premises and store-rooms. The kitchen and services area part has its own entrance and courtyard. The restaurant and hotel part are connected by covered colonnades, at the centre of which an open staircase with only the upper horizontal covered rises vertically to negotiate the difference of elevation. This staircase is a distinctive feature and in architectural terms the most effective part of the whole complex.

The left-hand part of the building is the hotel, with 249 rooms around an enclosed courtyard. In the four-storey building has a triple-wing layout, with rooms accessed from a central corridor. In the part between the staircase and the hotel are located communal rooms and at the level of the colonnade are shops and services. The colonnade on the south-west side of the building is two-storey high and engages in various rhythms and associations with the composition of the whole facade, including the recessed balconies of the hotel part.

The building is preserved in the composition of its mass and in its internal dispositions. Modifications have involved only minor interventions related to the changed function of some rooms. Maintenance of the building has, however led to changes in many details (e.g. paving). Unfortunately, the period interiors designed by Stockar himself, who was also an excellent interior designer, have not survived.

Klára Kubičková

BANSKÁ BYSTRICA

Banská Bystrica owes much to its wonderful natural background which makes it one of most attractively situated towns in Slovakia. It lies in the very heart of the country, spread along the Hron. It is surrounded on all sides by mountains: the forested Low Tatras, Kremnica Hills and the Bystrica Highland.

The first report of the town dates from the 13th century, in 1255 it was given the

privileges of a royal borough by the Hungarian king Bela IV and came one of the most prominent mining towns in Slovakia. This was the source of the wealth of its citizens in the 15th and 16th century. Prosperity was influenced by the mining of silver, copper and eventually, iron ores. This fact is confirmed by the intensive building activity at the end of the 15th century.

After the decline in mining production, which had been the decisive source of the town's economy, manufacture and craft production during 18th century enabled Banská Bystrica to recover its economic growth.

The facades of the town houses were modernised in the Eclectic style in the second half of the 19th century. The town walls and gatehouses hindered the urban development of the town, and also took up valuable space for building: therefore, they were gradually demolished. In their place, large new buildings arose at the beginning of the 20th century: National House, a branch of the National Bank and blocks of flats.

STATE TEACHERS INSTITUTE (now junior art school)

Stadlerovo nábrežie, BANSKÁ BYSTRICA

Realization: 1932 -34

Architect: František Eduard Bednárík



Bednárík (1902-1960), a native of Bystřica pod Hostěnem, studied architecture in Brno and subsequently settled in Žilina. His life's work has still to be researched and processed. He built a number of architecturally significant buildings, such as the central building of the power station in Žilina, the observatory at Skalné pleso and the swimming pool at Rajecské Teplice.

He designed the school on the embankment in Banská Bystrica in 1932 for the State Coeducational Teachers Institute, and it was completed in 1934. It was one of the first buildings on the new embankment of

the controlled River Hron. The L-shaped mass of the building dominates the embankment, not least as the first edifice to be seen by inter-city traffic entering the town centre. The strong horizontals of the flush windows of the main facade contrast with the larger diversity of materials and the verticals of the windows of the gymnasium on the side facade.

A prominent materials element of the building is ceramics, which provides not only a geometrical ornamentation for the sheer expanse of the side facade of the main mass, but also the vertical unifying el-

ement of the strip of continuous windows (cladding for the pillars of the supporting skeleton), cladding of the main entrance (the two ceramic reliefs to the right and left), as well as detail in the interior (the modelled rails of the staircase). The entrance to the building is on the right side of the main facade, with a double staircase from vestibule opening behind it. This part of the building is also accented on the facade by an open balcony before the windows of the staffroom and the principal's room, and by a flag pole on the corner.

The front wing of the building is two wings with a corridor from the courtyard side and classrooms from the south side. The rear part of the side wing is composed of the gymnasium. the stair well between the two wings is illuminated from both sides by large vertical windows running the whole height of the building. A similar window illuminates the staircase in the semi-circular part of the continuation of the building (still absent from the plan of 1932). The building also contained the flat of the principal and the porter.

The structure is provided by a reinforced concrete skeleton. The building was centrally heated by solid fuel. The classrooms included display cases. the floors of the classrooms are cast (DERMAS), while the corridors have a central strip of linoleum with borders of terrazzo divided by an inlaid brass strip. The building is still used as a school and remains, as yet, unprotected.

Klára Kubičková

NATIONAL HOUSE (Národný dom)

Národná ulica , BANSKÁ BYSTRICA

Realization: 1924 - 26

Architect: Emil Belluš



Emil Belluš (1899 – 1979) started on the creation of the Národný dom as a fresh graduate from the Faculty of Architecture of ČVUT (Czech Technical University) in Prague. The building was erected on a new street which was opened from a medieval square only in the first quarter of the present century and determined its new dimension. (It was not Belluš's first work in this locality: at the end of the street stood a bridge executed to his design in 1922 but, unfortunately, destroyed during the Second World War.)

In Prague Emil Belluš was a student of Antonín Engel, himself a graduate of Otakar Wagner's Viennese school. The Národný dom reveals signs of a transition from a very simplified historicist style and the encroaching functionalism, particularly in its raised groundfloor and the high order of the accented main entrance.

This continuing process also manifested

itself as the building was being designed, from the first competitions up to its execution. In the competition design it had a unified mass, while the end result accommodated the building's very diverse internal functions and created for them differentiated spatial possibilities even at the expense of a partial fragmentation of the external effect.

While the competition design still has an enclosed entrance to the main hall, in the execution stark vertical and horizontal compositional elements dominate, various forms of terrace are employed which enliven the whole mass of the building and give it a new character. The young architect had to address an exceptionally complex task: to ensure the smooth operation in the one building of various social functions: a large multi-purpose reception room with its attendant attributes, a hotel part on two floors and a restaurant and coffee bar with

their service requirements. The right, southern part of the building is composed of the original, poly-functional reception room rising through the entire height of the building and including a stage. Here Belluš employed a reinforced concrete horizontal modelled on the theatre in Dresden. The wooden wall panels, the balcony parapets and the main portal were intended to influence the acoustics. The hall is entered through the building's accented portico: the foyer is two-storey high and welcomes the visitor with paintings by the local artist Július Flaché. The coffee bar, restaurant and hotel parts originally had separate entrances, but today the original entrance to the coffee bar (from Národná ulica, near the corner) no longer exists. The extensive area of the coffee bar with its billiard tables, music and big-city café atmosphere enlivened the city's social life for many years. From the coffee bar there was access to the gambling premises on the first floor connected to the lower space by open balconies. The restaurant part had two rooms – one for a select clientele, the other a so-called „popular“ restaurant with its own entrance. Originally the whole of the ground-floor area could be opened up for large-scale social events. The kitchens were oriented towards the courtyard.

The two upper floors are designed as the hotel part. The changing owners and managers, indifferent attitude to the building, various waves of repair in the 1950s, 1960s and in recent years, and excessive demands made on its capacities (the installation of a professional opera in the reception room) have changed many of Emil Belluš's original intentions.

In any event, this is a building whose model architecture provided a framework for important historical events and is for this reason, too, a protected cultural monument.

Klára Kubičková

COUNCIL MEETING

The Conference comes to an end

Council Meeting and deciding on the future goals



The long awaited Tango Night and Competition



The Conference Team





APPENDICES

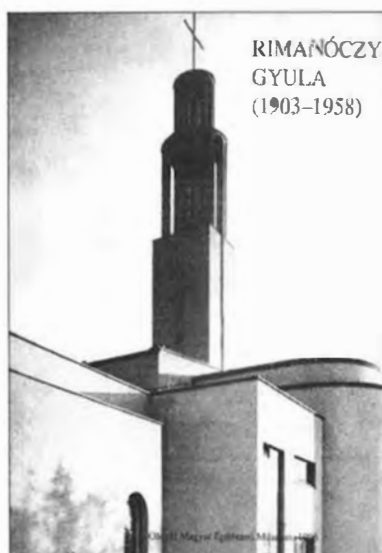
Exhibitions



Cover of the catalogue „New Movement in the Netherlands and in Slovakia 1918–1940”

The exhibition was organized by the Slovak Architects Society, The Royal Netherlands Embassy and Van Dijk, Van Soomeren and Partners – Amsterdam.

Opening: September 11, 1996, Slovak National Museum, Bratislava



Cover of the catalogue of the exhibition „Rimanóczy Gyula”.

Exhibition prepared by the Hungarian DOCOMOMO WP and the Cultural Institute of the Hungarian Republic, Bratislava. Opening: September 16, 1996, Bratislava



Cover of the catalogue of the exhibition „Modern Movement in Slovakia”

Opening: September 17, 1996, Slovak National Museum, Bratislava

POST CONFERENCE TOUR

Two-day Post Conference Tour

Saturday, September 21, 1996

- **Industrial and Housing Construction, Svit**
Designed by the former Bafá factory architects in Zlín with the involvement of architect Vladimír Karfík 1934 – 36
- **TBC Sanatorium – The Mountains of High Tatras, Vyšné Hágy**
F. Libra - J.Kan 1934 – 38
- **Morava Recreation Centre – Tatranská Lomnica**
B. Fuchs 1931 – 32

Sunday, September 22, 1996

- **Colonnade Bridge, Piešťany**
E. Belluš 1930 – 32
- **Eden and Excelsior Hotels, Piešťany**
P. Weisz 1918 – 29
- Bratislava**
 - **Nová Doba Cooperative Housing**
F. Weinwurm - I. Wécsei 1932 – 42
 - **Lafranconi - University Dormitory**
K. Šilinger 1926 – 33
 - **Regional Social Insurance Offices**
A. Balán - J. Grossman 1936 – 39
 - **Rowing Clubs on the river Danube**
J. Konrad 1930 – 31
E. Belluš 1930

SVIT

Svit is one of the Baťa factory towns built by the Zlín footwear company of that name in the first half of the 20th Century throughout the world. In them Baťa developed the ideas of the so-called Garden City of Ebenezer Howard (1850 – 1928). It was precisely in the Garden City that the principle of the Baťa philosophy contained in the slogan „Work as a collective – live as an individual“ found its full application. Baťa came up with the scheme of the „ideal factory town“ in collaboration with the best Czechoslovak architects and town planners. The author of the chosen study was Jozef Gočár. In addition to factory and civic areas it included accommodation for ten thousand inhabitants. The same principles were subsequently applied in the building of factory towns such as East Tilbury in England, Batawa in Canada, Bellcamp in USA, Borovo in Yugoslavia, Batanger in India and Möhlin in Switzerland. The company's expansion plans also took in Slovakia, and after an evaluation of economic, demographic and geographic conditions, a decision was taken at the beginning of the 1930s to build a new factory for the production of

chemical fibres near Poprad. In 1934 the first laboratory buildings were executed and the first version of the regulatory plan was drawn up. It was a simple chessboard configuration consisting of characteristic five-storey manufacturing units, a square open to the High Tatras surrounded by a community centre, residences for „young men“ and a housing area consisting of ninety double-unit and four four-unit housing blocks. A new regulation plan of 1939 significantly extended the housing, the communal part and, to some extent, the factory. The plan now envisaged 157 double-, 31 four- and 42 six-unit blocks, as well as 10 renting houses with 144 flats. In 1948 V. Kubečka produced a further version in which both the factory and the housing areas were repeatedly increased and, above all, building extended to the northern side of the road and railway. In addition to housing, other buildings appeared over time. These were primarily halls of residence for single young employees and dormitories for apprentices. They were typically multi-storey buildings erected with the same technology as the manufacturing shops. The variability of the construction made it possible for a department store to be included in one of them in 1937. Over time a provisional cinema was executed (again in 1937), a sports stadium (1939) and an architecturally in-

teresting railway station by V. Holečka which, however, remained unfinished. In 1938 the construction of an airport was begun, and this became the basis for today's Poprad-Tatry airport.

In 1942 a home for 500 apprentices was built to a design by V. Karfík and work begun on a civic centre (V. Karfík and M. Drofa) which was finished and put into operation only after the war, on February 1st 1947.

The great majority of structures from „Baťa“ Svít have all the signs of typical Zlín, constructivist architecture. The technology is based on a reinforced concrete skeleton in a 6.15 x 6.15 m module, with circular columns and filled mesh walling. It respects one of Baťa's most important requirements of architects and builders: speed of construction. The well-known 5-storey manufacturing buildings were erected at a speed of one storey a week. The basic erection of a family double unit took two weeks. Zlín architecture laid the basis for ideas of type-systemisation, standardisation and unification.

Svit, together with Baťovany (today's Partizánske) is one of the most extensive and best preserved examples of the Baťa factory towns.

Štefan Šlachta

VYŠNÉ HÁGY

TUBERCULOSIS SANATORIUM

Realization: 1934 – 35 and 1935 – 38

Architects: František A. Libra, Jiří Kan



The Prague-based architectural team of František A. Libra (1891 – 1958) and Jiří Kan (1895 – 1942) left only one executed structure in Slovakia, the TB sanatorium at Vyšné Hágy. In the preparatory phase of the work the physician Dr. S. Basař was an equal partner to the architects. The mutually beneficial collaboration of the two architects themselves was cut short prematurely by the deportation and subsequent violent death of Kan in a Nazi concentration camp. F. A. Libra had by the mid-1920s already achieved an important standing in the architectural scene of the first Czechoslovak republic. His design for a block of apartment houses for state employees in Prague-Vršovice (1924), a business academy for Rakovník, a public swimming pool in Prague and a school at Český Brod attracted the attention of foreign professional publications (e.g., *Wasmuths Monatshefte für Baukunst*, 1/1927). However the sanatorium at Vyšné Hágy (1932 – 1938) is in both scale and quality the peak of the entire achievement in design of both architects.

The sanatorium complex is composed of thirteen buildings distributed on the south flank of one of the peaks of the High Tatras

at an elevation of more than 1,100 metres. It boasts a number of superlatives on a national level: the highest-situated health establishment, the largest, most comprehensive and, even half century on, still the most modern. The site has a total area of almost 62 hectares and is surrounded and partly hidden by a coniferous forest. The complex in its entirety is in a sense a self-contained settlement, despite the fact that the Second World War prevented the building of an originally planned hotel for the patients' relatives and visitors, and of a large residence for employees.

Construction was carried out in two phases. In the first (1934 – 1935) the land was prepared, including the whole infrastructure and access road and routes. In the second (1935 – 1938) the treatment, service and accommodation buildings were executed: the main treatment building, the infection pavilion, morgue, the central heating plant and generator, workshops, laundry, garages, greenhouse, porter's lodge and four buildings for the accommodation of employees. The main treatment block with a groundplan reminiscent of an aeroplane, is, externally, modelled symmetrically and

perpendicular to the incline's contour lines. The number of floors ranges from one to nine, and the length of the southern, ward wing is 270 metres. The block contained 500 beds, high quality equipment, spaces for the preparation and serving of meals, for patients and staff, shops, a post office, telephone exchange, hairdresser's, 600-seat theatre auditorium and extensive communal spaces.

The enclosed space of all thirteen buildings is 202 000 m². The sanatorium had 1800 rooms for patients and numerous other rooms, 2170 doors, 2050 windows and 3956 light fittings. The total length of corridors was 3227 metres. Between 1949 and 1960 the number of beds was gradually increased from 500 to 857, which involved some minor adjustments of disposition. From 1955 to 1963 new equipment for treatment was installed. Subsequent years saw the introduction of a central oxygen distribution and storage centre, and a central annexe with machine room. A new infection pavilion was built and the central laboratories rebuilt. A general renovation of the facades was also carried out, some floor coverings and parts of the furnishings were replaced and the flat roofs repaired. The repairs can be considered sensitive, the quality of the execution between the Wars excluding the need for any extensive intervention.

The construction method of the sanatorium's buildings exploited the advantages of a reinforced concrete skeleton, and special bricks were developed, manufactured and applied for the internal walls. The whole of the main building was insulated with cork and clad with high-quality facade tiles, so that the whole has excellent heat and water insulation qualities.

Ľubomír Mrňa

TATRANSKÁ LOMNICA

MORAVA CONVALESCENT HOME

Realization: 1931 – 33

Architect: Bohuslav Fuchs



Architect Bohuslav Fuchs (1895 – 1972) was responsible for more than 150 executed works in the Czech Republic and Slovakia. In both republics his work is considered a cultural heritage and a significant proportion is protected. Fuchs graduated from Kotěra's architecture school at the Prague Academy of Arts and spent the first years of practice as Kotěra's associate. Later he made his permanent home in Brno, the birthplace of Adolph Loos, where he had his own practice, and over time held a number of important posts, as well as being a university teacher from 1945 to 1958. By the end of the 1920s he had already claimed a position among Europe's leading architects with the design and execution of the Avion Hotel (1928), the Masaryk students hall of residence (1929 – 1930) and the Eliška Machová House (1931) in Brno. Of his more than thirty projects for Slovakia the Morava convalescent home at Tatranská Lomnica (1931 – 1933) and the Zelená žaba swimming pool at Trenčianské Teplice (1935 – 1937) are undoubtedly in architecture's first division.

The trades union convalescent home is situated in a high-mountain Tatra settlement at an elevation of 900 metres. The

part of the plot actually built on has an incline equivalent to one floor. The dramatic natural setting has significantly influenced the home's architecture. Fuchs's attempt to achieve a harmony between architecture and a natural setting full of contrasts has resulted in an emphasising of contrasts within the architecture itself, specifically the contrast of two functional elements, the residential and the communal. Both components – clearly and cleanly elaborated in terms of disposition and material – are in every respect highly legible. Not only do they contrast in the material and expression of the facades, but they also differ in choice of construction.

For the higher, five-storey mass of the accommodation part a wall construction in a transverse supporting system was chosen. In the three-wing disposition the supporting walls of the south-eastern wing (rooms) are placed at an angle to the facade and cut into it like the teeth of a large saw. The verticals of the „saw“ and the horizontal lines of the partially protruding loggias divide the facade in a way corresponding to the internal spaces, with the play of light and the progressing shadow lending dynamism to the modelled image in the same way as it changes the aspect

of the ragged roach faces of the mountain peaks in the background. The system of brick transverse supporting walls has proved its worth particularly for its heat-accumulating and sound-insulation properties, and provides residents with a sense of well-being and privacy.

The contrasting lower, terrace-design three-storey mass of the communal and dining area, with its requirement of large, undivided internal spaces, uses the construction advantages of a reinforced concrete skeleton. The continuous ribbons of windows, the entirely glazed walls and the rounded columns are characteristic element of this functional component of the home.

The accommodation and communal part are linked by a neck and form a ground-plan in the form a T. A „fifth facade“ is formed by roof terraces and flat roofs.

Among the home's characteristic features are the first-rate, and essentially still functioning, original kitchen appliances, the highly elaborated forms, from the basic masses to the smallest detail such as the light fittings, the banister rails and the ubiquitous and dominant use of white.

The competition for the home was held in 1930, planning took from 1931 to 1933, with construction going on in parallel. Between 1957 and 1964 the coffee bar, canteen and porter's lodge were renovated, in 1975 the heating was converted to gas, and in 1979 the residential part was modernised. The year after the roof was repaired and in 1988 – 1989 the machine-room, electricity plant and network and, again the heating plant were reconstructed. Finally, in 1989 – 1990 the canteen was enlarged at the expanse of the terrace.

Ľubomír Mrňa

PIEŠŤANY

"Saluberrimae Pistinienses Thermae – Piešťany spa: very beneficial to health." This inscription on the Colonnade Bridge welcomes all as they enter the spa island. It is the title of a celebratory poem by Adam Trajan, the first bard of Piešťany spa. Piešťany became known throughout the world for the gypsum-sulphur thermal curative waters and sulphurous thermal mud which is used for the treatment of rheuma-

tic disorders. Piešťany mud is known for its physical, chemical, biological and radiobiological properties. The first mention of the villain settlement of Piešťany dates from 1113. Its proprietors have included a whole raft of kings and nobility. The first surviving written record of its curative springs is from 1505, a despatch by the monarch's counsellor George Wernher declaring the spa the best in the whole of

Hungary. Since the 16th Century Piešťany's mud has also attracted the sick of other countries. At the end of the 19th century the spa was rented by the Alexander Winter company which enlarged and modernised it, building the spa hall in 1893, the showcase Franz Josef spa in 1898, the Royal Hotel in 1900 and the Thermia Palace and the Irma spa in 1912. While during the first Czechoslovak Republic little was built in the spa, the town itself acquired a whole series of modern civic buildings, sanatoria and small private villas. Among these were the Excelsior and Eden hotels and the Colonnade Bridge.

EXCELSIOR and EDEN HOTELS

Realization: 1928 - 1929 and 1929 - 1930

Architect: Pavel Weisz

Pavel Weisz (1901 – probably 1944) is one of a number of Slovak architects of whom we have an incomplete picture. Born in Piešťany, he studied architecture at tertiary schools in Brno and München. He was active in Berlin, Moscow, Makeyevka (former Soviet Union), Piešťany and Bratislava. As yet executions of his designs abroad have not been identified. In Slovakia, noteworthy executions include, in addition to the Excelsior complex (1928 – 29) and the Eden (1929 – 30), the so-called Special Sanatorium (1926) and three villas (1936, 1942, 1943) – all in Piešťany. Pavel Weisz's life was tragically cut short in the fighting of the antifascist Slovak National Uprising, in which he fought, of course, in the ranks of the insurgents. The exact details of his death will no doubt remain for ever a mystery.

The Excelsior and Eden buildings appeared in quick succession and stand in close proximity to each other in a conspicuous town-centre location. Their architectural quality is such that they form a balanced spatial entity with significant city-building value. Strangely, the Excelsior as originally a hotel, and only after the war as transformed into a spa sanatorium, while

at approximately the same time the Eden, originally a sanatorium, was became a hotel. The Excelsior is a five-storey building with basements, and a front facade recessed after two storeys recessed. The groundplan is L-shaped and spaces are composed into a three-wing scheme. The original hotel had 100 – mostly double – rooms and provided the usual hotel services. The capacity the Jalta spa sanatorium (as the Eden was renamed after repairs) is 129 beds, again with an appropriate range of services. The flat roof was designed as an attractive roof terrace, and was used as such until its modification after the war.

The neighbouring site allocated for the Eden was a corner plot bounded to the north-east and south-east by two intersecting major streets. The four- to five-storey main mass, surrounding the space of the light-providing courtyard, is topped by a flat roof which has the form, over the lower part, of a roof terrace. The distinctive features of the main mass include the rounded corners and the vertical composition of the so-called „porthole“ windows on the south-easter facade. Before the south-western facade a to-storey restaurant wing

takes the form of a semi-basement and mezzanine.

In contrast with the requirements applied to the construction of the Excelsior, the initial operational demands made on the Eden were very heterogeneous. In addition to the accommodation, feeding, diagnosis and treatment of patients and the obligatory – for the time very high-quality – flat of the director, shops were also required on the ground floor. The Eden sanatorium was adapted to accommodate twenty guests in seventeen rooms on each standard floor.

The humanist character of both of Weisz's buildings is also evident in the fact that every room for guests has its own balcony and loggia, terrace or part of a continuous balcony. In general: refined mass, noble facades, terraces with garden features on the roof, a clear disposition, pleasant interior, balance of aesthetic and economic considerations assisted in no small measure by the chosen construction system: these are all assets of Piešťany's hotel complex.

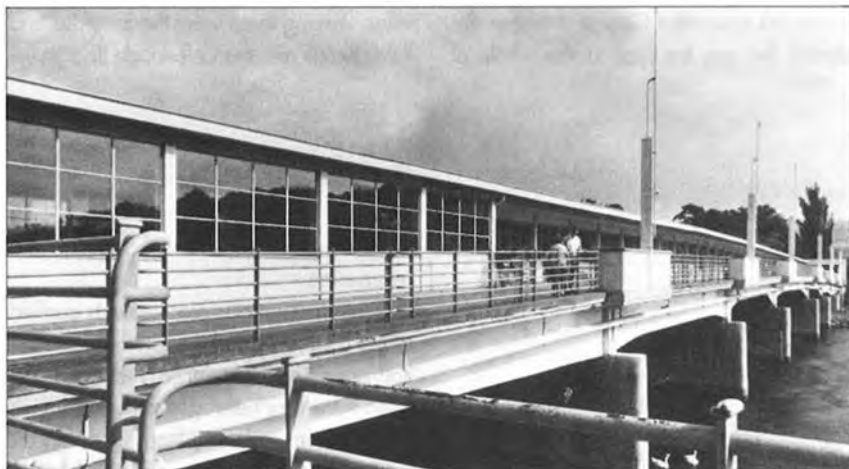
The reinforced concrete skeletal construction, filled with special hollow concrete moulds which were developed by the building firm of Pittel and Brauseweter, was one of the progressive elements in the construction. It helped increase speed – one building requiring under ten months – and to this day it supports the good technical state of the whole building fabric, including the cladding exposed to external influences.

Ľubomír Mrňa

THE COLLONADE (Promenade, Glass...) BRIDGE

Realization: 1930 - 33

Architect: Emil Belluš



Emil Belluš (1899–1979) is probably the most outstanding representative of the regional current in functionalist architecture in Slovakia. Having studied in Budapest and Prague, he settled in Bratislava, where he practised as an architect and also, from 1940, taught at the Slovak Technical University. Alongside the Collonade Bridge in Piešťany (1930–1933) his best-known works include: the National House in Banská Bystrica (1926), the Slovak Rowing Club in Bratislava – Petržalka (1930), a colony of apartment houses with 400 small flats in Bratislava (1930) the landing stages of the ferry across the Danube on the Bratislava and Petržalka banks (1929), a complex of co-operative houses on SNP Square in Bratislava (1934–1937), the National Bank in Bratislava (1936), a large mill (1937–1938) and water tower (1941) in Trnava, and the pavilions of the „theoretical institutes“ and the faculty of architecture of the Slovak Technical University (1950).

The reinforced concrete, partially covered bridge over the river Váh – known variously as the Spa, Promenade, Colonnade, Glass or Covered Bridge – is of se-

ven spans and connects the urban and spa parts of Piešťany. According to records in the town chronicle the structure „is 175 m long and 12–15 m wide“, the official length according to the List of Monuments in Slovakia is 141,8 m. Its special function is reflected in its three lanes: one for vehicles and two for pedestrians. A distinctive feature is covering of both pedestrian lanes with a double-sided protruding covering of perron type which, together with the vertical support, suggests a T-shape. An important share in the success of the bridge's design belongs to the collaborating expert on bridge construction, Ing. Schwarz.

The pedestrian lanes are divided from each other by a glazed wall into which, in the centre of the central span, are integrated two etched partitions by the painter Martin Benka. Over the spans at the two banks the bridge structure is swollen in the direction against the current, providing space for the installation of boutiques on the bridge itself.

Both portals of the bridge have appropriate Latin mottoes: on the town side „*Saluberrimae Pistinienses Thermae*“, and on the spa-island side „*Surge et ambula!*“.

Before the bridge on the town side is a small fountain with a statue of a man breaking his crutch by R. Kühmayer, dated 1933.

Towards the conclusion of the Second World War the retreating forces partly destroyed the bridge. At the end of 1956 reconstruction was carried out and the bridge was again made accessible. The extent of the destruction was significant and in many spans what we see today is replica. The renovation after the War returned to the bridge its functionality and without doubt also, in essence, its original form: however, some of the services it originally provided (above all the provision of mineral water for treatment purposes) were not renewed.

The bridge remains – now probably for ever – only a torso of what was originally intended, for the architect also envisaged the continuation of the covered section into a colonnade on the left bank. This intention is clear from the surviving designs and from an armature issuing from the bridge's left-bank portal.

Emil Belluš's great importance lies in the fact that – in Dr. Klára Kubičková's pregnant formulation – „he did not try to translate or intrude the period's enchantment with engineering into the expression of buildings which had a different mission but, on the contrary, tried to elevate the aesthetic value of those works which truly were works of engineering.“

The Piešťany Promenade Bridge is one of the most outstanding examples and proofs of this observation. On 10th April, 1987 the bridge was deservedly declared a cultural monument and entered as number 2347/0 in the Republic's central registry of heritage items. So far such recognition has been extended to a dozen of Belluš's works.

Ľubomír Mrňa

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