docomo

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

Journal

9
July 1993

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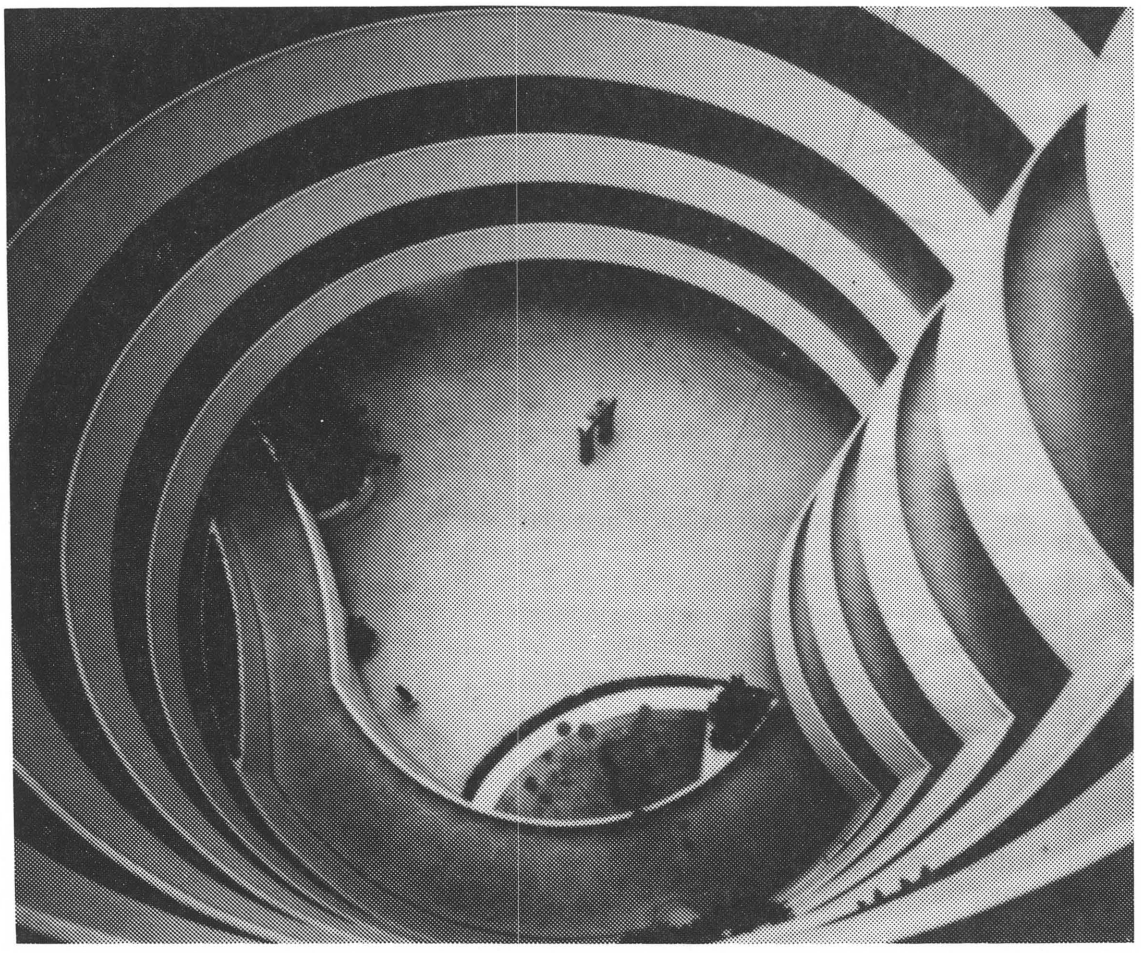

Getting dizzy? So did the spiral structure of the Guggenheim Museum, due to thermal expansion.
See pages 57-61 for a cure...

The Second DOCOMOMO Conference enjoys patronage from

Dr. Frederico Mayor,
Director General of Unesco

Prof. Peter Canisius,
President of the German Unesco commission

The Second DOCOMOMO Conference is organized under the auspices of

Catherine Lalumière,
Secretary General of the Council of Europe

The Second DOCOMOMO Conference enjoys financial support from

European Cultural Foundation

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Bauhaus Dessau

Bauhaus Dessau e.V.

The DOCOMOMO Journals are sponsored by

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SUBSCRIPTIONS

In principle, the DOCOMOMO Journal is available to members of DOCOMOMO International. The introduction of paid membership as per January 1st, 1994, will put an end to a confusing situation as to who is entitled to receive our periodical and who is not.
From that date, starting with issue 11, the Journal will be exclusively available to those individuals and institutions, including libraries, that paid the membership fee as mentioned on pages 8 and 9.
Upto and including issue 10 we will continue our previous system of distribution.

From January 1st, 1994, subscriptions without membership are no longer possible.

In the 1920's and 30's the Modern Movement was an important international architectural development, especially in Europe. The cultural, economic and technical results of this movement are still noticeable today. Characteristic of this movement is among others that buildings were designed with a relatively short functional as well as technical life expectancy in mind. Therefore most of these buildings are in a bad condition at present, or they have been altered, sometimes beyond recognition. Due to their social and cultural value it is important to saveguard some of these for the future, in one or another way.

The International Working-party for the Documentation and Conservation of buildings, sites and neighbourhoods of the Modern Movement DOCOMOMO was initiated in 1988 by the University of Technology in Eindhoven, The Netherlands, further to a research project on how the preservation of these buildings can be obtained in a coherent and effective way. The foundation of the Working-party is meant to advance an effective inventory, documentation and preservation of the most important Modern Movement buildings, sites and neighbourhoods of that period. The aim of the Working-party is to come to a network for exchange of experience and know-how and to draw the attention of the general public to the significance of this part of the cultural heritage.

The initiative is directed to:
- those who are involved in policy-making (legislation, financing, management),
- those who are professionally interested in the protection of early modern buildings, sites and neighbourhoods (architects, urban designers, art-historians, critics) and
- those who are responsible for their actual restoration (researchers, technical specialists, consultants).

A JOURNAL ON TECHNOLOGY

Anticipating the introduction of membership to DOCOMOMO International - in combination with subscription to our periodical - we decided to change our name. Also, many of our readers felt that the previous name did no longer cover the content. So we're proud to present our 9th issue, and the first DOCOMOMO Journal!
With the Journal, we will try to introduce also more thematic issues. The articles in this one mainly deal with technology, from structural repair to airconditioning to facade renewal. In the next issue we hope to include essays that explore the confines of the Modern Movement and philosophies for its preservation.
DOCOMOMO members seem to have developed a remarbable curiosity in following Erch Mendelsohn's traces in preWar Europe. From St. Petersburg (issue 7) and Luckenwalde (issue 8), this time we can follow him leaving the continent for Great Britain, where he designed, among others, the Cohen House (pp. 38-40 and full colour appendix) and the De La Warr Pavilion (pp. 54, 56). His flight for the nazi's eventually led him to Israel, where he met some old friend... (pp. 36,37). But our members might become interested in even more distant destinations. Since our previous Newsletter, a working party has been founded in Japan, while the Norwegian and Portuguese groups have been formally established. Also, the International Secretariat contacted experts in Indonesia and China.
Finally, I would like to ask your special attention for five urgent cases, mentioned on the first pages, for which your support is needed. Please help your collegues and send letters of support.

If you have any comments, please write a contribution for our *Letters to DOCOMOMO* column (p. 4). **Please note our deadlines for articles, September 1st, 1993, and for newsitems, October 1st, 1993.**

We hope you will enjoy this Journal. Wessel de Jonge

The International Secretariat still suffers from serious financial problems, which will hopefully be solved after the introduction of a membership fee from january 1994 (pp. 8,9). Until then, our staff remains reduced and the secretariat will be open Tuesdays only!

Letters to DOCOMOMO....

Call for help on plastics
Dear Sir, I am currently writing a thesis for a postgraduate course on the conservation of modern buildings and the effect of new materials. I am taking particular interest in plastics but so far I have found nobody else taking an interest in their application to buildings. Are you aware of anyone else who may be researching the uses of plastics in buildings with a view to exchange information?

Tony Walker
4 Iverna Gardens
London W8 6TN, United Kingdom

Tanzania
Dear Sir, As a conservation Architect from this part of the World where the oldest buildings are hardly two centuries old and where conservation is only a new phenomenon, you can imagine the fate of those buildings built in the 1920's and beyond. Nothing is therefore more timely to me and my institution than the news about DOCOMOMO.

Mwalim A.M.
Zanzibar, Tanzania, April 23rd, 1993

China
Dear Sir, First of all I would like to say that it is a very important work. The Modern Movement has changed not only in the face of architecture, but also people's mode of thinking.
I hope I can become the first member of DOCOMOMO for China.

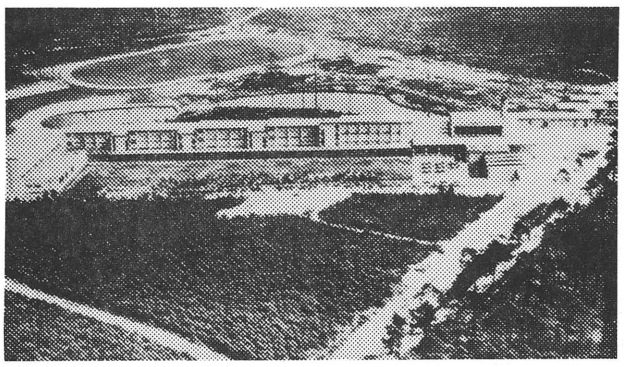
Zhou Lu, Associate professor
Beijing, China, March 10th, 1993

Colorado
Dear Sir, Founded in December of 1990, the Modern Architecture Preservation League is dedicated exclusively to the identification and presrervation of Modernism in Colorado.
MAPL would appreciate information on your organisation and would be happy to offer our assistance with any international modernist preservation efforts.

Diane Wray, director MAPL
Denver, USA, March 15th, 1993

Indonesia
Dear Sir, We are interested in forging close relations to your group. Enclosed is a leaflet telling you a little more about the Bandung Heritage Society. I hope you might advise your members who may be visiting Java, to stop in our office.

Francis B. Affandy
Bandung, Indonesia, April 7th, 1993



Bundesschule in Bernau

Who is able to help?

by Manfred Berger

The former *Bundesschule* (Federal Trade Union School) of the ADBG, an upspring of the German trade union movement in the Weimar Republic, was designed by the then director of the Bauhaus Hannes Meyer and his partner Hans Wittwer. Many interesting aspects of this first central trade union school ever to be built in Germany, were highlighted in a previous article in the DOCOMOMO Newsletter. [1]

To preserve this important monument of the Modern Movement the association *Baudenkmal Bundesschule Bernau e.V.* has been founded. Since our previous report one year ago, our association has grown and now numbers over 60 members all over Germany and Switzerland.

The BBB set themselves to the task of reconstructing the buildings, today officially registered under preservation order, according to their original architectural character. We wish to preserve this impressive testimony of human and social-oriented architecture and, at the same time, honour the traditions of the trade unions.

Sofar, the roofing of the glass corridors could be renewed and the rainwater system has been repaired. Also, a block of flats for teachers could be transformed into the original state. Further restorationwork on this part of the complex is to be expected soon.

The members of the association, in an honorary capacity, dedicate themselves to a range of activities: expert's consultancy and research on the building's condition is being obtained, funding for reconstruction and repair is sought, construction orders are assigned and restorationwork is supervised.
Some of our expert members have worked out a guideline concerning all necessary tasks to be

considered in the case of comprehensive conservation of the *Bernauer Bundesschule*.

However, our efforts to preserve the building are linked with some complicated problems. Within the 60 years of its existence, only little was done for the conservaton of the building. Damage to the concrete, roofs and rainpipe system had to be repaired straight away.

Alterations and extensions done in the 1960's and 1970's had extremely deformed the complex. Unclear property relations blocked urgently needed conservation measures. The present technical condition of the complex is alarming and needs extraordinary measures for its conservation. Therefore, we seek effective international help. We would be very glad to welcome new friends of the Bauhaus as members in our association. We would be very thankful for even the smallest donation, which could help us with further reconstruction work.
We are looking forward to any letter we will receive from you in the future. This will also help us to publish and to underline the international significance of this monument as an important testimony of Modern Movement architecture in Germany.

Manfred Berger is member of the board of the BBB association.
Please send your support to: Baudenkmal Bundesschule Bernau e.V., Fritz Heckertstraße 43, O 1280 Bernau, Germany. Tel. +49 -3338 -65149.

1. See DOCOMOMO Newsletter 7, June 1992, pp. 8,9.

Next Journal

The Journals inform members about each-others activities and publish requests for support for actions that are being undertaken in other countries. In doing so, the Journal forms a 'bridge' between the international conferences.

This general concept for the Journals requires activities from DOCOMOMO members. News and matters of present interest concerning documentation and conservation of MoMo architecture should be sent to the International Secretariat, including pictures (will be returned).

Also should be sent in reports on activities of your national DOCOMOMO working party and acts of meetings.

Journal 10 is planned for November. Deadline for that issue is , for articles September 1st and for news items October 1st, 1993, including illustrations. Please send your texts both on paper and on floppydisc if possible.

Campaign for Corbu's Pavilion Esprit Nouveau

The *Pavillon de l'Esprit Nouveau*, originally designed by Le Corbusier for the 1925 Exhibition for Decorative Arts in Paris, was reconstructed in 1977 in Bologna, Italy, after an initiative of a group of local architects. Originally, the pavilion was a prototype for standardized 'modern' dwellings and displayed a big diorama showing Corbu's latest urban projects for the ideal modern city. Due to limited resources at the time, it was traditionally built. The reconstruction was aimed at producing a replica, identical to the original even in applied materials and construction techniques. Financial - and time - restrictions however limited possibilities and the reconstructed building lacks some fundamental finishings and systems, such as sewers for rainwater, causing maintenance problems and, eventually, deterioration.
After being used by the scientific institute OIKOS for over ten years, during which the building could be visited, today the pavilion is closed for safety reasons and stands abandoned. However, its crucial location at the Bologna Fair Grounds would allow a reuse as a meeting point for cultural events and exhibitions - just like in Paris in 1925.
The Bolognese Union of Architects started a campaign to save the pavilion and to make it available for public use. DOCOMOMO members in all countries are kindly requested to support their initiative by sending the completed coupon to:

Ordine degli Architetti di Bologna,
Strada Maggiore 26, 40125 Bologna, Italy.

CAMPAIGN PAVILION ESPRIT NOUVEAU

The undersigned .....

profession .....

institution .....

city .....

country .....

as a sign of solidarity supports the campaign of the Bologna' Union of Architects for the Pavilion Esprit Nouveau. The undersigned subscribes to the appeal at the authorities, the cultural associations, the scholars, those who carry direct responsibility for the cultural patrimony in Italy, to intervene as soon as possible and to take all the necessay steps to restore the Pavilion to a public use.

Date .....

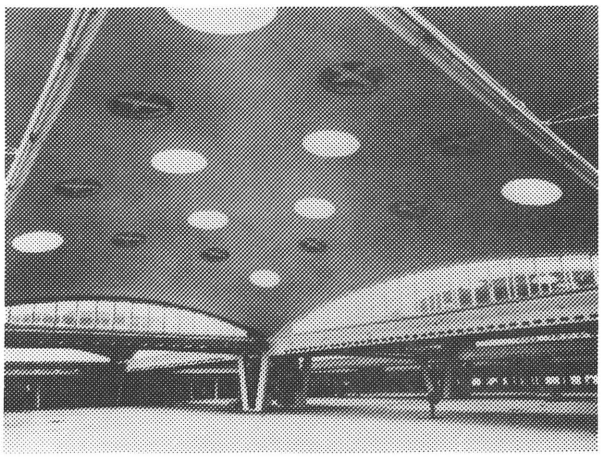
Signature .....

Brynmawr Rubber Factory

by Alan Powers

The large rubber factory at Brynmawr in South Wales was completed in 1951, and was a major project of the immediate postWar years which has often been compared with the Royal Festival Hall in London. It was the first job of the architects, Architects Co-Partnership, who put into practice the ideas generated in the 1930's at the AA School of Architecture concerning the role of modern architecture in social service. The factory was commissioned with government money to relieve unemployment in an area of former steel and coal industry.
The building became famous for its nine shell-concrete domes, engineered by Ronald Jenkins, the partner of Ove Arup, developing preWar German ideas. Frank Lloyd Wright visited it in 1951. After thirty years of production it became redundant in 1982, but was listed in 1986 when threatened with demolition, a rare example of a postWar listing at the time. After a public inquiry, the factory was given a year's reprieve and various initiatives were established to find a developer willing to restore it. The building, now in the hands of receivers, is still under threat, and the local authority is known to desire its clearance.
The Twentieth Century Society, as the main voluntary agency for the protection of buildings in Britain after 1914, has been involved since the 1986 inquiry and is hoping to make the attitude of the Welsh historic buildings establishment less fatalistic towards the building, one of the few post-medieval buildings in Wales of European significance. Any expressions of interest from DOCOMOMO collegues abroad would help to stimulate greater pride in this building which, given the right impulse, could return from the brink of extinction to serve the community for whom it was built.

Alan Powers is honorary secretary of The Twentieth Century Society, UK.



What future for a Macintosh House?

A listed building in downtown Northampton in need of a new function.

by Louise Campbell

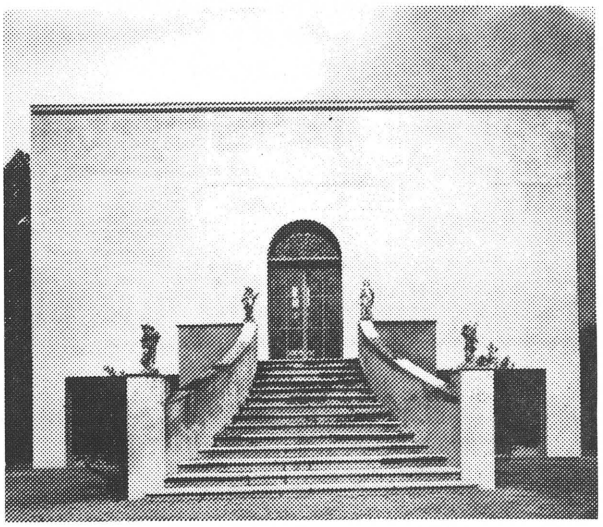
In 1916-17, C.R. Macintosh, then living in London, was commissioned by W.J. Bassett-Lowke, a manufacturer of engineering models, to re-model a small 19th Century terraced house in Northampton, 78 Derngate, for himself and his wife.

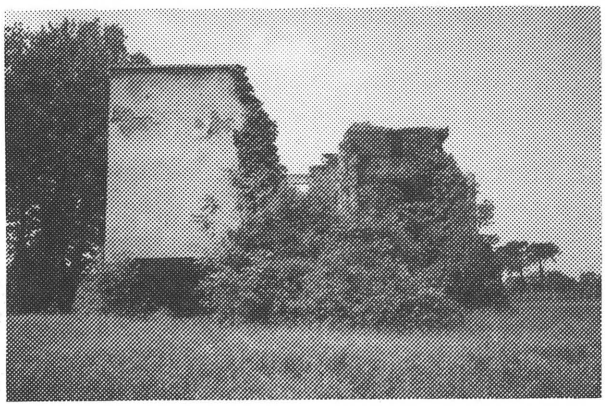
A rectangular bay was added to the front of the house, and an extension to the back, increasing its size and altering its external proportions.
Internally, the creation of a single room from the hall and front parlour, the rounding of window jambs and the emphatic horizontals of the decorative schemes devised for the main rooms changed the character of the house.
The new lounge-hall was painted black, with a stencilled frieze of geometric design in brilliant colours.
The motif was echoed in the glass panels let in the door to the dining room, and in the latticed screen separating the staircase from the lounge-hall.
Appropriately for a client with a professional interest in new technology, the house was equipped with a bathroom with American nickle plated fittings, electric light and central heating to supplement its open fires.

Although the original client left the house in 1926 to live in a new one - commissioned from Peter Behrens! - on the edge of the town, taking much of the furniture with him, the house and many of its internal features (fireplaces, staircase screen and carved newel post, light fittings) have remained remarkably intact, although in need of repainting.
The present owners, Northampton High School, who have used it as a teaching annexe, are shortly to move, and the site is to be redeveloped.
Although the house and its interior is protected by listing, the problem remains of finding an appropriate function for it.
The planning authorities in Northampton fear that it may prove difficult to find a tenant/owner prepared to finance the restoration, allow a reasonable degree of public access, and put up with the practical disadvantages of a small house on a busy road in a part of town now largely occupied by commercial premises.

Louise Campbell is a historian at the University of Warwick, Coventry, UK.

Campaign for Villa Muggia





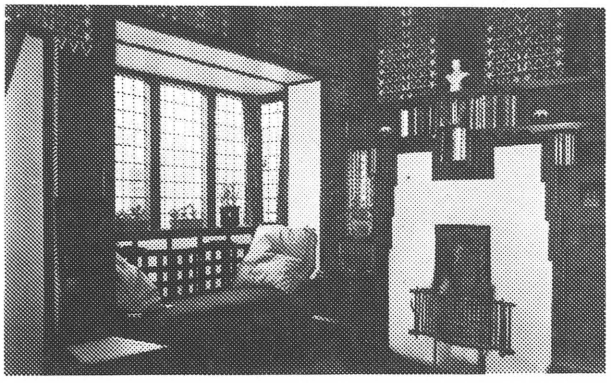
Top: Villa Muggia shortly after the intervention by Bottoni and Pucci, in 1939. Photo showing the volume with the baroque hall inside
Bottom: the same aspect today. Photo: Wessel de Jonge.

One of the most interesting buildings of Italian rationalism raises on a hilltop in Imola, near Bologna. In 1935, Bottoni and Pucci started their design for this country residence, that was to include sections of an existing 18th Century villa. The intervention and extension of the house resulted in 1939 in a most intriguing piece of architecture, where modern and baroque elements harmonize and contrast at the same time. DOCOMOMO Newsletter 8 includes an article on the building.

The villa was bombed during the War and today only a few parts of the grand staircase, the side walls and some mouldings remain. Nothing has been done yet to repair the building and the villa serves as a barn for farming machines. The hall is completely without roof, and the magnificent bridge crossing the baroque hall is reduced to a muddle of crumbled concrete and rusted rebar. Vegetation is invading the building and the modern part of the villa - that barely survived the explosion - witnesses 50 years of neglect and vandalist's assaults: water enters through the roof and damages the structure, while rains and storms force their way through the premises. The anexes have gradually been altered and are hardly recognizable today. The Bologna section of the Italian Union of Architects started a campaign to save Villa Muggia and to make it available to public use. DOCOMOMO members in all countries are kindly requested to support their initiative by sending the completed coupon to:

Ordine degli Architetti di Bologna,
Strada Maggiore 26, 40125 Bologna, Italy.

Bottom: the Macintosh house in Northampton. The lounge-hall after Macintosh's intervention with its geometric frieze in bright colours, contrasts with the black-painted walls.



CAMPAIGN FOR VILLA MUGGIA, IMOLA

The undersigned .....

profession .....

institution .....

city .....

country .....

as a sign of solidarity supports the campaign of the Bologna' Union of Architects for Villa Muggia in Imola. The undersigned subscribes to the appeal at the authorities, the cultural associations, the scholars, those who carry direct responsibility for the cultural patrimony in Italy, to intervene as soon as possible and to take all the necessay steps to restore Pucci and Bottoni's Villa Muggia to a public use.

Date .....

Signature .....

From the Executive Committee

by Hubert-Jan Henket

In Newsletter 8, I have announced a proposal for changing our constitution ('National or Regional?') and a proposal for 'A fee for membership of DOCOMOMO International'. I asked the Council members present at the Council Meeting at the Bauhaus, all representing a country, to vote on each item. Nineteen Council members submitted their votes in time.
The results are as follows:

1. National or Regional?
The outcome of the vote was, for question:
1. 17 countries in favour, 2 abstentions,
2. 17 countries in favour, 2 abstentions,
3. 16 countries in favour, 1 against and 2 abstentions.

This means that our constitution will be changed to the following:

par. 2 Since circumstances in the participating countries are diverse, it is best that national and/or regional DOCOMOMO working parties operate and organise themselves to suit local requirements. If national or regional working parties will be established, they need the approval of the DOCOMOMO Council before they are recognised as such.

par. 3 The national or regional working parties may either take action themselves, or they may primarily function as 'spider in a web' by stimulating already existing institutions to do so in accordance with their merit.

par. 4 DOCOMOMO International is the sum total of all these national and/or regional activities. The International Secretariat serves as the general communication centre between the various national, regional and individual initiatives, by maintaining an information network about people and their activities, as well as about Modern Movement buildings in danger. The International Secretariat will also publish a newsletter twice a year and will assist the DOCOMOMO Exective Committee.

par. 5 Every two years an International DOCOMOMO Conference will be held. The host country or region is appointed by the DOCOMOMO Council at the previous conference. The host country or region is responsible for the organisation and the financing of this conference. The main programme of the conference will be decided by the host country or region in consultation with the DOCOMOMO Executive Committee.

par. 6 At the International DOCOMOMO Conference a plan of action for the next two years is to be adopted. The national or regional working parties report to the next conference about progress being made.

par. 7 The organisational structure of DOCOMOMO is as follows:

a. The national or regional working parties elect a national or regional representative. In countries where no national or regional DOCOMOMO working party is in existance as yet, the DOCOMOMO Executive Committee can provisionally appoint one.

b. The national and regional DOCOMOMO representatives together form the DOCOMOMO Council. The DOCOMOMO Council decides on a Plan of Action for the next two years. Only the representatives from national or regional working parties that have fulfilled the target of the adopted DOCOMOMO Plan of Action have a vote in the DOCOMOMO Council.

2. Membership fee for DOCOMOMO International
As you might have guessed the outcome of this vote was much more controversial. The results are, for proposal:
1. 14 countries in favour, 4 against and 1 abstention,
2. 13 countries in favour, 5 against and 1 abstention,
3. 14 countries in favour, 4 against and 1 abstention,
4. 14 countries in favour, 4 against and 1 abstention,
5. 14 countries in favour, 4 against and 1 abstention,
6. 14 countries in favour, 4 against and 1 abstention.

Based on the previous information the Executive Committee has decided to introduce the following membership fees:

For individuals	US $ 100,--	for 2 years
For institutions	US $ 350,--	for 2 years
For students	US $ 40,--	for 2 years

Students have to show their registration form. The membership will start on January 1st, 1994. Those who want to become a member of DOCOMOMO International have to announce this to their national or regional coordinator, before October 1st, 1993. For the address of your national or regional coordinator see the list on pages 33-35.

This leads to the following addition to the constitution.

par. 10 He or she is a member of DOCOMOMO who has paid the membership fee of DOCOMOMO International. The Executive Committee decides on the height of the membership fee. Individuals (and institutions) living in particular countries or

regions may be exempted from the membership fee or may get a reduction. This reduction or exemption has no influence on the status of the member concerned. The Council decides which countries will be allegeable for this reduction or exemption.

The membership fee covers a period of two years and starts on January 1st of a given year. The fees are due by October 1st prior to the given year and are collected by the national or regional DOCOMOMO representatives, who will transfer the collected fees to the International Secretariat before December 1st prior to the given year. Cancellation of membership must be announced to the national or regional representatives before October 1st prior to the given year. DOCOMOMO working parties are free to increase the official membership fee to cover their own expenses. So for the constitution.

Below, the amount to be paid is given for individuals and institutions per country. This amount per country can be discussed and altered if necessary at the next DOCOMOMO Council Meeting in 1994 in Barcelona. To that time this schedule below is binding.

Argentina	40 %
Belgium	100 %
Brazil	40 %
Canada	100 %
CIS/Russia	0 %
Croatia	40 %
Czech Republic	0 %
Denmark	100 %
Estonia	0 %
Finland	100 %
France	100 %
Germany	100 %
Great Britain	100 %
Greece	100 %
Hungary	0 %
Ireland	100 %
Israel	100 %
Italy	100 %
Japan	100 %
Latvia	0 %
Lithuania	0 %
The Netherlands	100 %
Norway	100 %
Poland	0 %
Portugal	100 %
Rumania	0 %
Scotland	100 %
Slovakia	0 %
Slovenia	40 %
Spain	100 %
Sweden	100 %
Switzerland	100 %
USA	100 %

I hope most of you will agree with this pragmatic solution.

Meeting ISC on Registers

Minutes of the meeting on 5 April 1993

*by Gérard Monnier**

Following the meeting of 6 February 1993 between DOCOMOMO International and Icomos, facilities were made available to the ISC/R for a working meeting, which was held on the premises of Icomos at 75 rue du Temple, Paris, 9.00-14.00 hrs. Present: Gérard Monnier, chairman, Dirk Baalman, Maristella Casciato, Suzanne van Aerschot (replacing Luc Verpoest), Alan Powers. Apologies: Xavier Fabré. Observers: Emanuelle Gallo (DOCOMOMO France), Wessel de Jonge (DOCOMOMO International).

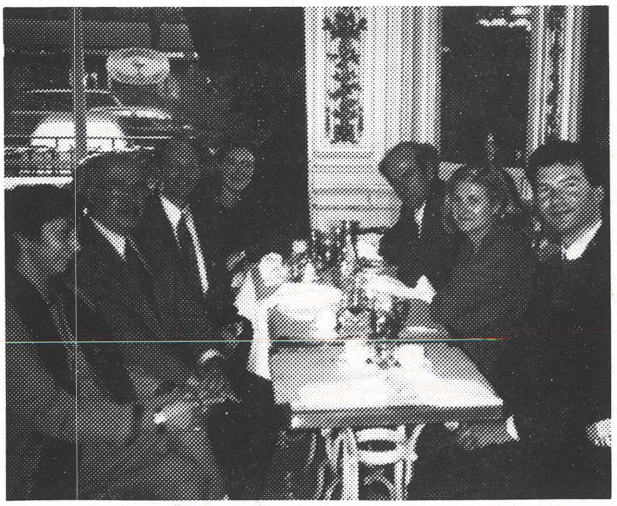
The chairman reminded the committee that each member of the ISC/R was present on their own account, and did not represent a national section. The question was raised concerning the representation of members unable to attend, and the committee agreed unanimously that a member could give a mandate to another member of DOCOMOMO to represent them. Luc Verpoest was represented by Suzanne van Aerschot, whom he had nominated.

Agenda items

The meeting of the committee had two objectives:

1. A technical objective: the production of a descriptive fiche for the DOCOMOMO International Register.
2. An objective of making a selection:
   - the DOCOMOMO selection, to be proposed to Icomos in 1994, will be made by identifying buildings chosen by the ISC/R and also by the national sections (cf. Henket 6 February).

The ISC/R after the meeting in Paris: Van Aerschot, Monnier, De Jonge, Gallo, Baalman, Casciato, Powers.



- we can therefore establish a selection procedure for the committee and put it into action, i.e. create a preliminary selection, which will be the basis for finding the extent of overlap with the proposals of the national sections in 1994.
- a problem is foreseen if a proposal by the ISC/R is in a country for which no national section exists. In this case, the proposal would be ratified by the International DOCOMOMO Council.

1. Fiche

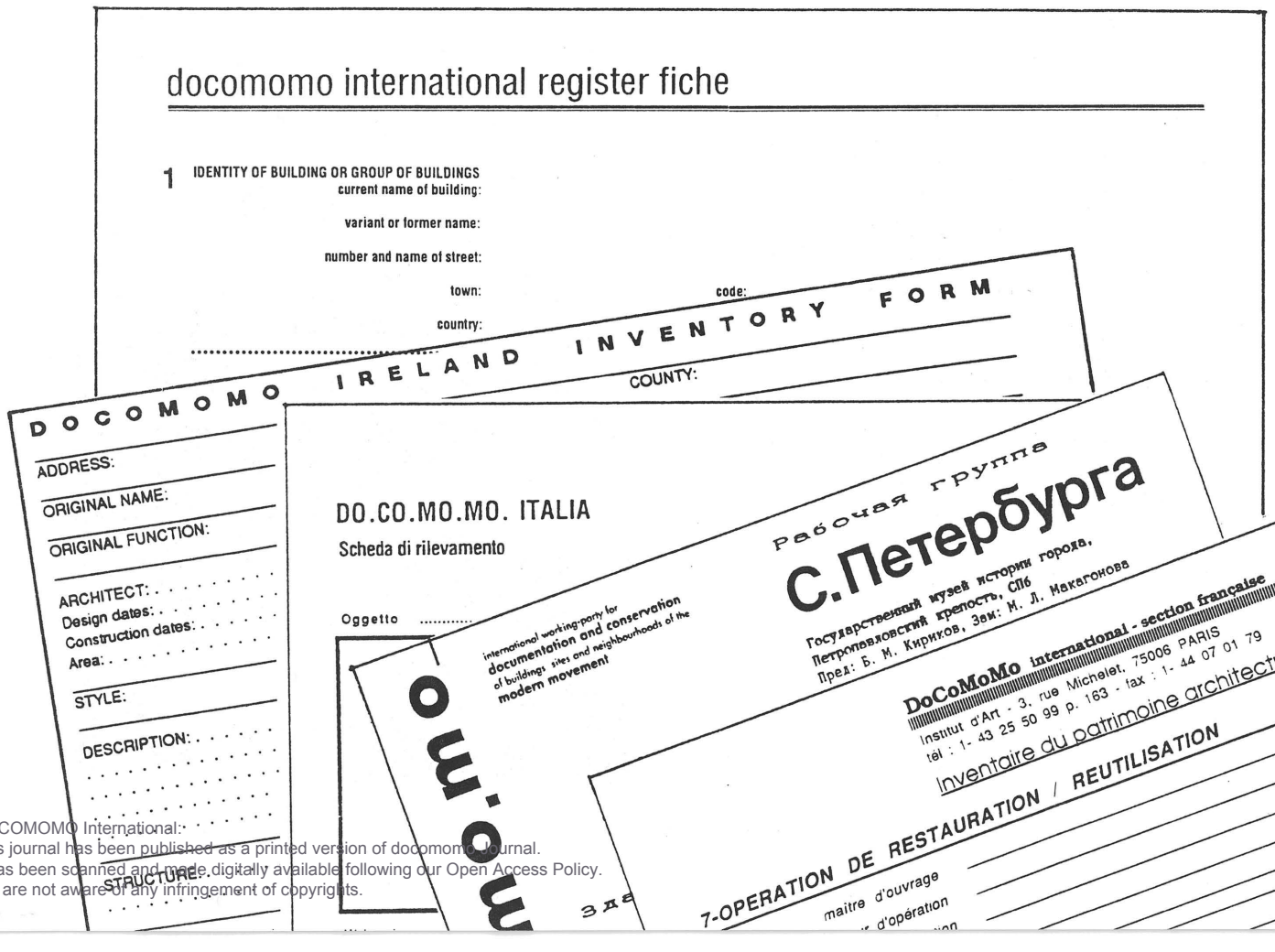
After discussion, a simple fiche was adopted for the DOCOMOMO International Register.
Criteria: an essential part, under section 5, repeats the criteria established by DOCOMOMO at the Bauhaus Dessau.
Form: A4 format fiche (2 pages, each 2 sides), maximum lenghts established for entries under different headings, with additional material in annexes if necessary, including photographs.
Language: the fiche will be sent out in English and in the national or regional language of the country concerned.
Form of presentation: to be established, but probably of Apple Macintosh, Filemaker.
Variation to wording of tile of section 5 to conform to Icomos standard.

2. Selection of list of buildings

The procedure was based on an indicative list jointly prepared and expanded by the committee. Each member was able to ask for buildings to be included on the indicative list. Votes were taken by a simple majority, and detailed evaluation was made according to the DOCOMOMO criteria as agreed in Dessau. A final discussion, at the request of Dirk Baalman, examined the contents of the list by a rigorous application of these criteria.
The indicative list contained 55 buildings (or groups of buildings). The chairman proposed that a selection of 20 should be made at this first session, since this seemed a number which DOCOMOMO could present convincingly to Icomos. A list in chronological order was adopted by the committee.
Alan Powers was asked to translate this list in English. Each building was allocated to a raporteur, who will have the task of creating the relevant fiche, in collaboration with an expert nominated by the appropriate national section.
This list has been presented to DOCOMOMO International, which will be able to present it to the DOCOMOMO national sections before publication. Until such time as it is published, the list will remain confidential. It was confirmed that this list did not embody any form of ranking or classification.

Gérard Monnier is chairman of the International Specialist Committee on Registers.
**Text translated by Alan Powers, member of the ISC/R, and slightly edited by the International Secretary regarding some terms, in accordance with previous documents agreed by the Council.*

The fiche for the International MoMo Register can be obtained from the International Secretariat on request.



Symposium on education: finding models for modernism

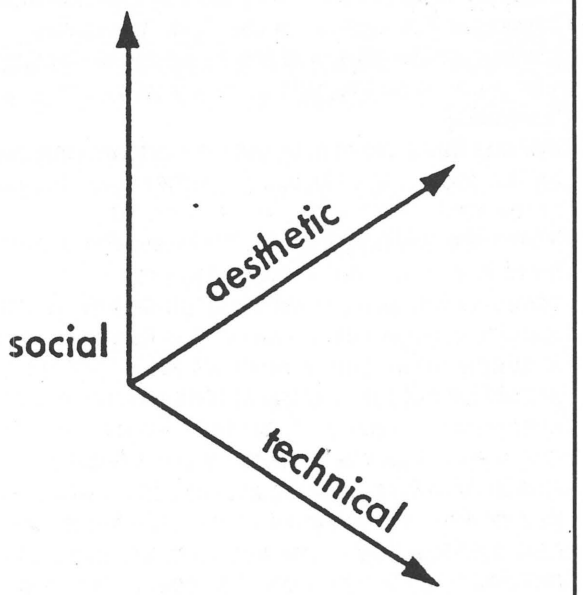
Second DOCOMOMO-UK Symposium, 'Education and the Conservation of Modern Architecture', Architectural Association, London, March 27th, 1993

*by Jeremy Melvin and Paul Finch**

Constructing a canon of modern architecture is a fraught task. Not only was modernism, or anyway one aspect of it, concerned with quotidian matters which do not readily make canonic formulae, but, as Allan Cunningham pointed out at the recent DOCOMOMO-UK annual symposium, the English language enshrines a belief that the 'modern' is inferior to the 'classical'. According to the *Oxford English Dictionary*, modern can mean that which is not classical, while classsical can be a label for anything first rank. So if there can be a modernist canon, that dictionary would define it as second-rate. This dichotomy underlies the whole of DOCOMOMO's work, and indeed the entire project of conserving modern buildings.

In an argument reminiscent of Ruskin, who suggested that the real test of gothic was the attitude of the worker rather than outward form, Ivor Richards suggested that conservation of modernism should apply to its principles. Once identified these could be used for teaching, to enable teachers to order the confusing cacaphony of forms and images in which students have to swim. Applying a few principles of his own, he proposed a kind of atomism, where everything can be broken down into 'simple concepts' from which 'meaningful complexities' might ultimately be constructed.

I was fascinated by the three-dimensional grid with axes labelled social, technical and aesthetic. Modern Movement purists might quibble as to whether these concepts can be separated, but the issue worrying me is what happens at point zero. Does this really imply the possibility of a building with no technical, aesthetical or social qualities? I would love to see one. If, as Richards argued, Modern Movement buildings which have 'moved the discourse forward' should be identified and conserved as exemplars, it might be worth developing a more sophisticated means of identification. Where Richards was prescriptive, Cunningham was exploratory. Also addressing architectural education, he cited Wittgenstein's comment that 'architecture expresses a thought'. Teaching, he said, must search for that thought. Cunningham gave a thoughtful but necessarily open-ended view



The three dimensions of the Modern Movement programme (diagram by Ivor Richards).

of the aims of architectural education. As an academic subject architecture remains indebted to the *Ecole des Beaux Arts* at a period when cultural stability was a political response to social turmoil. Form was a priori and practice normative.

Shorn of these certainties, architecture is an academic misfit, borrowing from other disciplines, with a central component, design, which is an activity rather than a subject. Architecture, therefore, necessarily has no clear epistemological foundation, nor can improvements be measured as they can be in, say, medical science. Teaching architecture is a shared exploration of issues, rather than narrow prescriptions, and has moved from being neat and predictable to open-ended and messy.

Cunningham concluded by returning to the modernist theme of the conference. Pointing out that Dutch has one word for beautiful, clear and simple, which makes Holland an ideal nursery for modernism, he suggested different interpretations of the Duiker's Open-air school within the cultural legacy of Roger van der Weyden, Spinoza and Rembrandt. Although comments such as Holland's 'non-hierarchical' society deriving from Spinoza's philosophy sounded like starting points for discussion, rather than reasoned academic argument, the overall effect was non the less an erudite plea for a cultural interpretation of modernism as a basis for architectural education.

Although not attended by a mass audience, the DOCOMOMO symposium in London was a succesful event, full of fascinating insights and information about many problems associated with

conserving modern buildings.
Perspectives provided from English Heritage, from Russ Craig of Hertfordshire County Council and Professor Tim Benton of the Open University made it all too plain that the business of dealing with modern buildings is complex and sometimes frustrating.
For one thing, there is as yet no standard procedure for the recording of buildings, either when they are nominated, or after they have been listed.
There are few bright spots, however. For example, there is a clear and consistent approach to conservation at Lubetkin's Highpoint flats, where a specific window manufacturer has been selected to supply replacement windows (double-glazed, it should be noted), and the criteria has not been the cheapest possible cost, but the best job. Another bright spot was the account by John Allan of Avanti Architects of various projects on which he has worked, particularly Lubetkin buildings, and how a philosophy of conservation has come to be developed by the practice. We could also do with more of the filmed records of buildings, of the sort Professor Benton showed in relation to the Quarry Hill flats.
This is a very big subject; we should be grateful to DOCOMOMO, and event organisers Christopher Dean and Dennis Sharp, for their continuing efforts to put modernism on the public cultural agenda. Their efforts are having some success, as recent announcements about the listing of postWar educational buildings clearly showed.

Text previously published in Building Design *of April 9, 1993. Reprint by kind permission of the author and the publisher.*

Cinderella in historiography

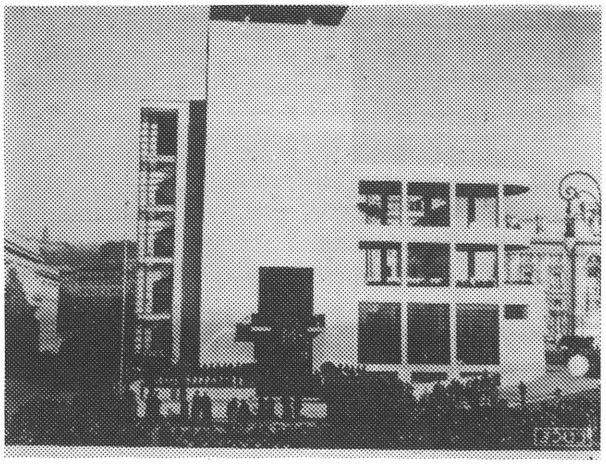
First DOCOMOMO Italia Conference at *Consiglio Nazionale delle Ricerche* Rome, April 27th, 1993

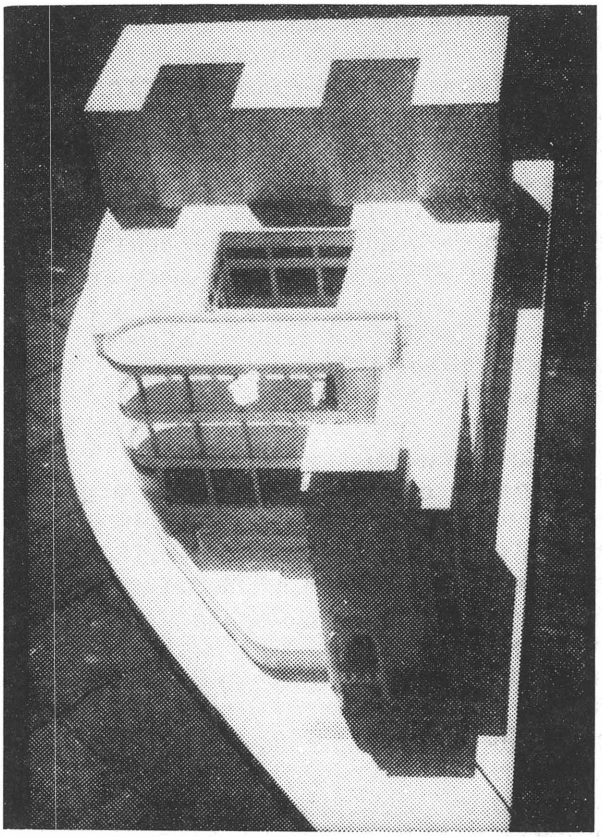
by Maristella Casciato and Luca Veresani

A first conference of the Italian Working party was held in Rome last April. Veresani's brief introductory note identified two main objectives: to divulge and, where possible, coordinate research in progress, as well as to assist in the emergence of methodological aspects rather than to focus on results, in order to develop a 'mapping' of studies in this field.

Role of building technology
Sergio Poretti emphasized the degree to which research on the history of building techniques is consistent with issues concerning the restoration of modern architecture, a problem becoming more urgent every day. The history of architecture still lacks certain instruments and progresses too slowly. A reason for this delay may be found in the fact that in the 20th Century, the history of architecture was first and foremost a matter of militant beliefs, from which it derives its role as the 'Cinderella' of historiography. This is even more true in Italy during the transition from artisanal into modern building techniques. Lacking an academic tradition, the history of building techniques is still a frontier field of studies caught between the histories of architecture and technology. Its sources are different from those of architectural history, which often provide only part of the necessary information. The research carried out at the Department of Civil Engineering of Tor Vergata University in Rome may be interpreted as a contribution to issues related to modern architecture restoration. The methodology used begins with the study of the building and its conception, when the architect has a leading role, to the construction documents with all of their relevant technical and formal decisions. We are aware that we are operating in an invisible land, the space occupied by the events occuring between the design, the construction documents and the construction itself.
Tonino Paris spoke of formal innovation as a product of technical instruments, specifically applicable to MoMo architecture, where technological innovation was highly experimental. After the dissolution of 19th Century's craftmanship, the new architecture had no historical experimental precedent to refer to, like law without jurisprudence. Details, whose importance in modern buildings has been already recognised, are always technically verified but not always controlled by the designer. The peculiarity of the Italian case exists in the specificity of the technological choices, for instance for window frames. Therefore it is necessary to understand the technical know how of the period workers by creating an inventory of techniques and crafts. Regarding the specific issue of the restoration of modern architecture, Paris emphasised the role of the project and that of the designer which must act on the basis of his/her own culture, in total freedom.

Diagnosis and therapy
Pier Giovanni Bardelli reported on the need to utilise a survey capable of making a diagnosis of the condition of the building components, before deciding about a restoration program. Every action must confront the culture of building, and that of the built environment. Then the measured drawings, meant as an 'anamnesis' of the building, become a fundamental instrument of knowledge. This methodological research is linked to a pragmatic and multi-disciplinary attitude and includes the production of measured drawings and





Top: Moretti's Littorio Youth Movement Building (GIL) at Trastevere in Rome in its original splendour.
Right: the original model of the same building.
The building is included in the 'risk-map' for Rome as compiled by the Central Restoration Institute in Italy. Valeria Vocaturo reported about this 'risk-map' project at the first DOCOMOMO Italia Conference last April in Rome.

survey of materials and building methods. From these operations one derives a diagnosis and then suggests a therapy. Major problems emerge when one has to translate this therapy into a project, to be followed in all its phases with the choice of appropriate and compatible materials.
It is obvious that the intervention not only has to repair damaged parts, but also to plan the building's future maintenance. This requires a constant control of the building's condition, as well as a study of its history, both technical and architectural.
Restoration must direct the therapy, taking into consideration the concept of 'maintainability'. To this end, the process of restoration will have to overcome a strictly precept-oriented vision, and work towards a procedure-network.

Law could encourage quality

In the field of modern architecture restoration the frame of reference for rules and procedures has all but been assessed, said Alessandra Montenero. The core of the issue, however, is not the writing of the rule, but the design strategy. Until the beginning of this century there was a culture of maintenance based on the continuity of a building culture. The practice of maintenance has declined, partly due to the weakness of the authorities (remarkably the Superintendencies) at the time when new building techniques have replaced older ones. How do we operate? First, one must spread new technological knowledge - often architects do not preserve buildings because they don't know the specific technical aspects of restoration.
Second, one must have a better knowledge of materials - otherwise there is a risk of inconsistency between the proposed and the realised. Thirdly, one must make an in-depth analysis of the artefact. In conclusion: to be really effective, regulations and laws need to encourage the quality of the design.

Potential to be transformed

Carla Saggioro dealt with the problems of formal coherence in the transformation of modern artefacts. The buildings whose functions have changed or have become inadequate, must be considered in view of what we could call 'vocation' for a certain use. The worst problems with the refitting of existing structures for new uses lie in the variation of the use itself and the destructivity of generic transformation to serve new purposes. A careful spatial study must therefore be done to allow for a compatible reuse. Regarding the building undergoing an intervention, it is necessary to acquire vast historical and technical documentation to evaluate the feasability of the transformation, based on the decay (which shows the need for an analysis of the structural components' pathology), to reflect on the appropriateness of building parts of the original project that have not been completed, or to correct potential technical defects, and to deal with increasingly devastating security requirements. Giovanni Morabito commented on the issue of 'transformability' which he identified as one of the key-issues of modern architecture's restoration. He mentioned a well known Dutch proposal to define four different procedures: philological, corrective

and 'pragmatic' restoration, and renovation. While the first two leave little room for change in use, and the result of the fourth is often devastating, in the third case the issue of 'transformability' is more pertinent. Lacking rules, restrictions and procedures, it is necessary to define a 'model' for compatibility to be used as a 'hinge' between the analysis of the 'vocation' for a reuse and the design itself. The building must be checked like a patient, its vocation in terms of use must be analysed. The 'transformability' is nothing but an assessment of a building's potential to be transformed.

Criteria for intervention

Cristiana Marcosano Dell'Erba reported on a research carried out with Marco Biuzzi, on defining 'criteria' for intervention. Every analysed building is assessed as a monument, structuring an urban area. According to this approach (articulated as a historical analysis, the definition of a typo-morphological model, and the appraisal of the material quality) the building is the centre of a study aimed at defining a meaning and suggesting a future role by the use of design. The three case-studies included the Duilio beach pavilions on the Ostia waterfront, the Italian summer colonies of the 1920's and 30's and Le Corbusier's project for Firminy .

Claudio del Maro presented his project for the restoration of a housing block designed by Luigi Magni in the Testaccio district, Rome, built at the beginning of the 20th Century. This opened the question of an extension of the notion of modernity. Furthermore, by the fact that they are working-class houses rather than a relevant monument, they must be seen as part of the city tissue, implicitly allowing a certain degree of transformation.

Church in Matera

Mauro Saito spoke of his restoration project for the church in La Martella in Matera, originally designed by Ludovico Quaroni in the 1950's. He took the opportunity for a reflection on the main issues confronted in the course of this experience. What does the designer do when the building has been constructed economically, moreover in an area subject to geological collapse? What does one do with the unbuilt parts of the original project? Which technology does one use when working with unspecialised contractors? How does one confront the variety of problems posed by the different responsible administrations?

Nino Saggio reported on his didactic experience regarding the reconstruction of historical architecture with the use of computers. This experience offers a fundamental support for design activity. The three dimensional model with its characteristic abstraction, recreated by a simulation, offers the designer a series of opportunities in terms of linguistic, quantitative analyses, and 'dynamic hierarchy'. The 'real time' testing of the system of relationships inside the model present itself as an extremely agile tool in restoration.

Student's work in Southern Italy

Clementina Barucci presented a report on the inventory of 20th Century buildings in Calabria and Western Sicily that she began with her students in the architectural history courses at the University of Reggio Calabria. The main problems center on the periodisation of 'modern' in regions where the persistence of eclectic architecture and historic styles are strong during the first two decades of the 20th Century. In both Reggio Calabria and Messina, the problem of the chronological threshold is suggested by the date of the earthquake of 1908, when causing the complete destruction of the historic building fabric. Other difficulties arise in the bibliographical research due to the lack of archival sources which could be overcome only with a long and expensive surveying campaign.

Valeria Vocaturo reported on her experience with the project of the 'risk-maps' of Italian monuments, launched by the Central Restoration Institute. In this case, the register is not only an instrument of knowledge, but a system to prevent damage and to plan interventions. The risks undergone by the monuments, either structural, environmental or anthropological, are represented by thematic maps. Once a certain situation has been recognised as dangerous and the vulnerability of a building is assessed, the operation of cross-referencing these data becomes the basis for drawing up the risk maps.

Four sample areas have been chosen to test an articulate system of inventory. In the case of Rome, within the list of 31 buildings there are four 'modern monuments': the Ximenes House (Basile), the Sanatorium at Monte Mario (Del Debbio), the GIL building at Trastevere (Moretti) and the War Veterans building (Piacentini). Each file will contain the identification data of the building, its structural description, full information on building materials and their potential decay.

Debate and targets

The interventions were followed by a lively debate on various issues concerning transformability, a designer's freedom in projecting restorations and the importance of measured drawings.

The national MoMo register has been unanimously recognised as urgent, and as a specific task for DOCOMOMO Italia. The Italian Working party has chosen as a short term target the definition of criteria and priorities for the register. The first step will be to elaborate, according to some international indications, a suitable register form for Italy.

The authors are members of DOCOMOMO Italia.
Text shortened by the editor.

Iconoclasm in post-communist East Europe

An Icomos conference in Berlin February 18th - 20th, 1993

by Michael Petzet

The German National Committee of Icomos, together with the Institute of Foreign Relations, organised an international conference from February 18 - 20, 1993, on the theme 'Iconoclasm in East European countries - Monuments of the communist era in countries of the former Eastern block'.
Aim of the conference was the question if those monuments could bear political value only and thus be taxed as such, or if they could bear witness of artistic and cultural evolutions and thereby be granted the right protection and maintenance.
The well attended conference joined about 140 conservators and art historians coming from Byelorussia, Canada, Croatia, Estonia, Finland, France, Hungary, Poland, Rumania, Russia, Slovenia, Slovakia, the Ukraine and Germany.

Revolution and the Third Reich
During the opening session on February 18th the positions of the conservator and the art historian complemented each other by the introductory papers of Prof. Petzet ('Monuments in revolutionary times?') and Prof. Engel ('To live with history'). Petzet started from Alois Riegl's distinction between the 'wanted' and the 'unintentional' monument, Engel from the problems of dealing with the architectonic heritage of the Third Reich. Due to the actuality of the day after publication of the Senate Commission's expert opinion on the dealings with Berlin monuments of the former GDR era, the subsequent press conference was well attended and procured the conference and their organizers a lively response in press and television. In the afternoon papers of Croatia, Slovenia, Hungary and Rumania brought the first reports from Eastern Europe.

A true overcoming of the past
On February 19th the international exchange of experience continued with papers of Poland, Estonia, Russia (Moscow and St. Petersburg), the Ukraine, Byelorussia and Slovakia, before Prof. Tomaszewski from Warsaw made a first summary with his paper.
The second half of the afternoon was dedicated to local reports. The paper of Dr. Dolff-Bonekämper subjected one of the affected objects to a thorough art historic analysis. The partly controversial final discussion showed important attempts on differentiation of the problematic nature of the subject. Due to the fact that some monuments became victims to the comprehensible indignation of the population already during the first days of liberation from communist despotism and that, in the meantime, monuments of the communist era are destroyed on a rather admiratory level, it was generally approved that instead of a hasty 'clearance' one should make use of the changes offered in the sense of a true overcoming of the past, for a critical exposition and, maybe, for a creative redesign.
With his evening lecture Prof. Gamboni proved that the demolition of communist monuments, like it is exercised nowadays in many regions of Eastern Europe, to be a tradition, the roots and aspects of which he illustrated and commented in a detailed way.
On February 20th, Prof. Engel guided an excursion to buildings and sites of the Prussian era and the time of the Third Reich and, in the afternoon, to monuments and memorials of the former GDR and Stalinist' era.
Publication of the papers is planned for 1994, to appear as volume XIV of the series 'Icomos - Journals of the German National Committee'.
The obvious success of the conference brought forth the wish and need for another meeting in 1995, in order to deepen the touched aspects and to include the subject of Stalinist' architecture.

Prof.dr. Petzet is president of the German National Committee of Icomos.

Stalin and Gorki, a monument in the Ukraine by A. Kruglow. Photo: Tscherkes.

Can communist mass housing be humanised?

Symposium at the Academy of Fine Arts & Design, Bratislava, Slovakia, 11 May,1993

by Shane O'Toole

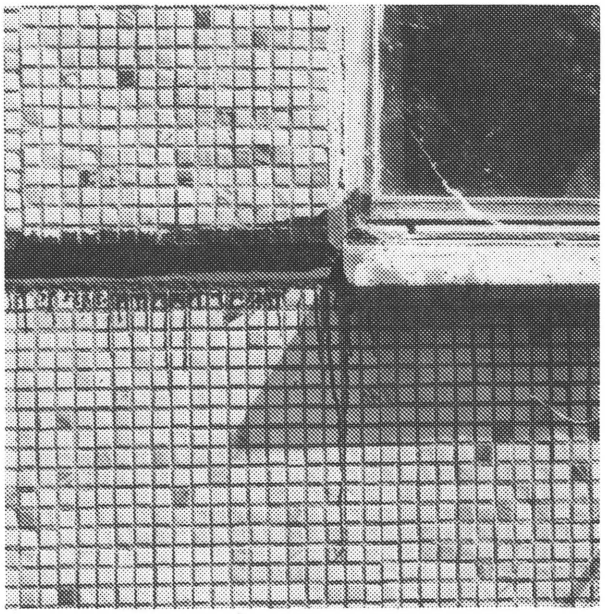
This one-day symposium was organised by Prof. Stefan Slachta, Vice-Rector of the Academy and well known for his work in documenting MoMo architecture in Slovakia, and the Office of the Chief Architect of Bratislava. Its purpose was to explore what can be done with the Communist-era legacy of panelsystem housing developments throughout Central and Eastern Europe. A specific case study was examined - the district of Petrzalka, located on the Southern outskirts of Bratislava.
Although it dates only from the 1970's, Petrzalka already displays serious infrastructural, sociological and technical defects, and it is therefore a valuable case-study for issues which affect, to varying degrees, all of the new European democracies.
The symposium was held immediately following the end of the inaugural EAAE (European Association for Architectural Education) and ASCA (Association of [USA] Collegiate Schools of Architecture) Conference, which took place in Prague. The seminar had a truly international flavour, with roughly equal representation of European experts and American educators.
Introductory presentations to set the scene were made by Peter Benuska, the City Architect and Deputy Mayor of Bratislava and by Karol Balas, an architect and urban planner from the Office of the Chief Architect. There followed a guided tour of Petrzalka, before the afternoon's discussion.

Case study: Petrzalka, Bratislava
Bratislava, capital of Slovakia, is situated on the banks of the Danube, close to the borders with Austria and Hungary. Located some 60 km from Vienna and 200 km from Budapest, it was for 300 years the capital of the Austro-Hungarian Empire.
The population of Bratislava in 1945 was approximately 250.000 and this number increased by less than 50.000 during the following 30 years.
The area for natural growth of the city was restricted by the Carpathian mountains in the North and East, the proximity of the border to the West and the broad expanse of the Danube to the South. The Southern shore of the Danube was, until twenty years ago, known as the 'green garden of Bratislava'; today it is the site of Petrzalka, a panelsystem suburb of 50.000 units, housing over 150.000 of the city's 400.000 people today.
A UIA competition for the new Petrzalka district, held in 1967, attracted 84 entries from 19 countries, but failed to produce a winning entry.

Top: panelsystem housing in the Purvciems district in Riga, Latvia.
Right: a horizontal joint between panels illustrates the lack of craftmanship.

When development eventually went underway in 1974, all the aspirations of the competition - which provided for the necessary social and cultural facilities, including a university for 5.000 students, a sports stadium, public swimming pool, hotel and even cemetery - were forgotten.

Humanisation
Petrzalka is possibly the largest suburban 'dormitory' in Europe. Infrastructural development and social facilities are poor. There is almost no local employment; virtually the entire working population commutes to Bratislava by bus. Although almost one third of its residents are university graduates, the district's physical condition is so degraded that one of the American participants described it as 'looking just like the South Bronx'.
An international seminar in 1991 studied the problem and identified the two greatest planning and architectural mistakes as being the district's undifferentiated and anonymous spatial organisation and the use over so great an area of a single, low- grade technology (the panelsystem - 'a well-proven system, tolerant to the poorest craftmanship'). Moreover, at current the city administration of Bratislava is devided in 17 districts, each with its own District Mayor; yet the entire Petrzalka comprises but one of the seventeen districts!
The 1991 seminar concluded that Petrzalka needs to be humanised as its own city, with its own city center, transportation network and local places of employment. Cooperation with the existing residents is essential, local communities of 10.000 to 15.000 inhabitants should be created and large-scale landscaping initiatives ought to be developed. At the other end of the scale, radical improvements to individual apartments - currently being offered for sale by the municipality, but, not surprisingly, with few takers - also needs to be undertaken.



Ideas competition on large-scale housing
Of the symposium's many presentations, possibly the most stimulating address came from Jeffrey Cooke, the well-known teacher, author and critic from Arizona, who proposed a six-point 'manifesto': Privatise, Personalise, Solarise, Socialise, Metamorphise and Publicise!
Privatisation of housing - now underway - could generate capital for the necessary large-scale infra-structural works. Subsequent private investments would lead to improvements in individual homes and a sense of identity, as well as the re-introduction of craftmanship. Currently, the apartmentblocks display similar elevations towards all orientations: energy performance requires general enhancement, solar water heaters may be installed and two- and three-storey conservatories or wintergardens added in appropriate locations. Social interactions may be encouraged by the provisision of public amenities at ground level - nursery schools, laundries, garden clubs and cafés. Architecture and landscape interventions should actively transform the current drab appearance of the district, and these changes should be widely publicised as a possible model for emulation.
Shane O'Toole reported on preparations for an architectural ideas competition to be promoted in 1994 by the CEC and which will be aimed specifically at developing new ideas on humanisation and rehabilitation of the large-scale housing developments of Central and Eastern Europe. The Petrzalka case-study clearly demonstrates the possibilities for intervention at different scales, one of the objectives of the forthcoming competition. Meanwhile, the Bratislava city officials' ongoing efforts to internationalise the search for solutions to this widespread postWar legacy deserve success and must serve as a model for other municipal authorities.

Shane O'Toole coordinates DOCOMOMO Ireland.

EXHIBITIONS

Architecture of the Soviet Avantgarde II
Kunsthalle Tübingen, Germany
14 May - 30 July, 1993

Friedrich Weinwurm
Slovak National Museum
Bratislava, Slovakia, opening May 1993

Henri van de Velde
A European artist in his Era
Museum voor Sierkunst, Gent , Belgium
until 4 August, 1993

Neues Bauen in Tel Aviv, 1930-1939
Photographs by Irmel Kamp-Bandau
Institut für Auslandsbeziehungen
Stuttgart, Germany, 8 June - 25 July, 1993

Architectural Design and Conservation of Modern Buildings
Rationalist Messina; a case-study
Palazzo del Monte di Pietà
via XXIV Maggio, Messina, Italy
26 June - 25 July, 1993

International style
Reconstruction of Johnson's famous exhibition
Kunsthal, Rotterdam, the Netherlands
10 July - 29 August 1993

Scotland and the Brave New World
PostWar architecture in Scotland
Royal Incorporation of Architects in Scotland
Edinburgh, Scotland, from 16 August, 1993

Modern Architecture in Germany 1900-'50
Part Two: Avantgarde; Expressionism and *Neue Sachlichkeit*
Deutsches Architektur Museum DAM
Frankfurt, Germany, Early 1994

Part Three: Monument and Power
Deutsches Architektur Museum DAM
Frankfurt, Germany, Early 1994

Modern Movement in Ireland
Dublin, Ireland, Autumn 1993

Gerrit Rietveld, complete works
Centre Pompidou
Paris, France, October 1993

Guggenheim Museum
New York, USA, Winter 1993/'94

Urban Planning in Europe
Centre Pompidou, Paris, France, 1994

Searches for style: Centenary exhibition for Ginzburg in Moscow

by Catherine Cooke

March saw the opening of the centenary exhibition for Moisei Ginzburg at the Shushev Museum in Moscow, which was announced in Newsletter 8, and an accompanying research conference. Both were formally presented under the joint aegis of the Museum with DOCOMOMO-Russia.

Provocatory essays

Relatively few original drawings of Ginzburg's survive, and almost none of the 1920's. As curator of the exhibition, Irina Chepkunova used this situation highly imaginatively as the opportunity to create a show of almost unprecedented type in such a Russian museum, which attracted equally unprecedented numbers of young visitors as well as a feature on the TV arts programme.
Under the title 'Searches for style' (Poiski stilya), each section formed an evocative and provocatory essay around key quotations from Ginzburg's manifesto of constructivist architecture, Style and Epoch, published in 1924.

Futurist machine

A group of young architects helped design and execute the installations whilst an under-employed design team in the Moscow City Architect's office conceived and made a shining electronically powered 'construction' that produced authenticly futurist cacaphonies of 'the noise of the city'.
Documents from DOCOMOMO's campaign for Ginzburg's Narkomfin housing complex brought a current international dimension - if a sad one.
Centrally located near the Kremlin, the Museum's now modest, but sparkling exhibition space was proved to be a very good venue for creating a more popular interest in architecture.

Two day conference

The two-day conference on the Soviet Modern Movement of the 1920's was likewise gratifyingly successful in attracting non-specialists from the profession and outside.
Twenty-two Russian papers and one foreign one presented this audience not only with fresh research, but with a range of wider issues that challenged them to look afresh at the buildings. This will hopefully bear fruit in further support for the DOCOMOMO effort.

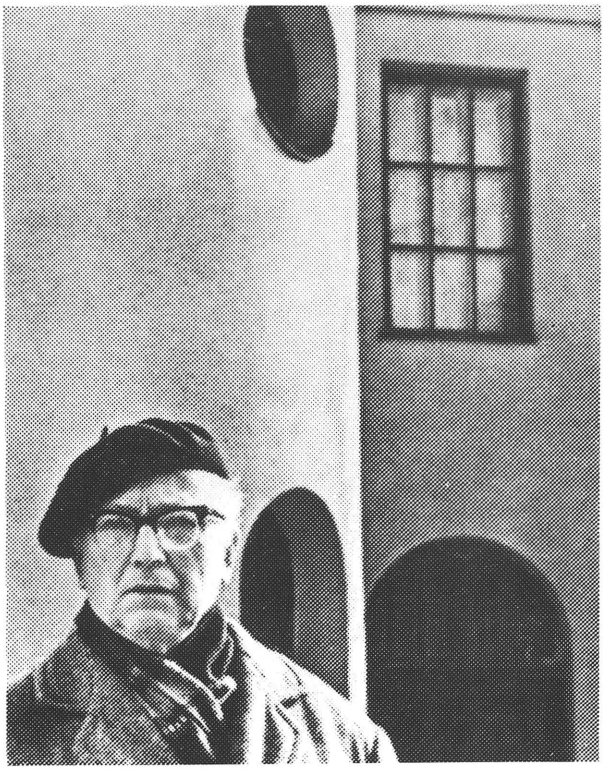
Catherine Cooke is a staff member of the Open University in the UK.

In memoriam: Vytautas Landsbergis-Zemkalnis

Architect Vytautas Landsbergis-Zemkalnis died in Vilnius on May 21st. The father of parliamentary leader Vytautas Landsbergis celebrated his centenary two months earlier.
Landsbergis was a participant in the struggle for Lithuania's independence in the early 1900's. He was the minister of municipal economy in the provisional Lithuanian gouvernment formed after the June 23rd, 1941 revolt against Russia. He lived in exile after the War and later returned to Lithuania.
Landsbergis was one of the protagonists of Modern Movement architecture in Lithuania and the architect of many representative buildings in Kaunas, Lithuania's preWar capital, among them the *Pienocentro*, the 'Milkcentre' opened in 1935, the university laboratories (1932-36) and the Sports Academy, designed in 1936. In honour of his 100th birthday, the Lithuanian Museum of Architecture composed a retrospective of his works. This succesful event had been opened on March 10th in his presence, and coincided with a symposium on the subject, organized with the Lithuanian Union of Architects, as well as the presentation of a monograph on Landsbergis.

Text based on The Baltic Observer 21/65 and Morta Bauziene's article in Newsletter 7.

Landsbergis in front of the Kaunas Library, that he designed in 1937-'38.



Landsbergis: an exhibition and a monograph

'Architektas Vytautas Landsbergis-Zemkalnis', by Jolita Kanciene and Jonas Minkevicius, Vilnius 1993; 91 p., 60 projects illustrated; ISBN 5-420-01232-4. Exhibition 'V. Landsbergis, architect', by Morta Bauziene, Lithuanian Museum of Architecture, Vilnius 1993.

*by Wessel de Jonge**

One of the most conspicious leaders of Lithuanian architecture in the period between the Wars that laid the basis for today's national architecture was the architect Vytautas Landsbergis-Zemkalnis. After his studies in Riga and Rome, he started his professional activities in 1926. The early years of his career are characterized by a change in style, from traditional conservatism to functional rationalism, the latter simple and modest in exteriors and functional in plans. In the early 1930's some remarkable buildings in Kaunas, Lithuania's provisional preWar capital, were the first examples of modern architecture in Lithuania. Landsbergis became City Architect of Vilnius when the capital was returned to Lithuania in 1939, where he worked under difficult circumstances during the Soviet and German occupations that followed. In this period he worked on several plans for urban restructuring of parts of the city.
After the War, Landsbergis worked as a teacher before leaving for Australia, where he participated in the Commonwealth Department of Works and Housing (a.o. Australian Embassy in New Delhi, 1955, Commonwealth Office in Melbourne, 1956), besides working as a private architect (Plant for the Burghart Hurle Company in Melbourne).
In 1959, he returned to Lithuania. Although he participated in designing a number of public buildings, not many were executed. Landsbergis strongly disapproved the way the Soviet occupiers neglected Lithuanian culture and devastated its cultutural heritage. In this period he developed a specific view combining advanced conceptions of modern architecture and a great concern about the cultural and environmental heritage of the country; in practice, most of his works concerned the restoration of architectural monuments.
According to the authors of the monograph 'a humanistic approach, modern life requirements and deep respect for the national cultural heritage are inherent qualities all his projects are based on.'

The book's authors, Jolita Kanciene and Jonas Minkevicius, obviously took great efforts to bring together a comprehensive collection of illustrative materials of Landsbergis' works. The authors show a number of early sketches dating from his studies in Rome, including his graduationproject. The projects and executed buildings are mainly documented in perspective drawings and period photographs but, fortunately, the book as well includes plans of most works, either original or newly drawn by the authors.
The *Pienocentro* of 1930-'34 is highlighted by including a series of studies, showing a variety of volumes and corner-solutions for this outstanding site in downtown Kaunas.
In view of the fact that preparatory research as well as the publication itself had to be realised in a mere six months, the relative completeness of the material is remarkable. Yet, anyone who visited the exhibition on Landsbergis at the Centre for Modern Art in Vilnius will have been surprised by the amount of materials on display there, that is not included in the book.
Compiled by the Lithuanian Architectural Museum, this fine exhibition showed a range of outstanding original sketches, drawings and photographs from their archives. The impressive retrospective of the architects' works closed in the week of Landsbergis' death. Despite the fact that it lacked architectural models or other more easily accessible attractions for the general public, many visitors came to see the exhibition, which gives a clear indication of the socio-cultural impact of the subject at this moment in Lithuanian history.
One might regret however that the authors of the monograph and those of the exhibition did not join their forces into one comprehensive effort. Though their haste is understandable - both wanted their work available to the public in time for Landsbergis' centenary - it seems a bit of a waste to develop two parallel projects on the same subject, the more so in view of the limited financial sources for such activities in Lithuania today.

From the English summary of the book can be learned that the monograph is not a critical history of Landsbergis career - and maybe the time is not yet right for such an approach. Yet there is quite a diference in the way the two authors dealt with their subject. Minkevicius, who covers the postWar period, tends to get blinkered in his admiration of Landsbergis, whom he seeks to distinguish as the only significant architect of that era. Such a point of view might appear to be too limited in redefining the recent architectural history of a country.
Kanciene strongly relates Landsbergis' preWar works to his personal life, his professional career and the social circumstances of the period. In doing so, she paints a warm, yet bright picture of this remarkable Lithuanian architect and his works.

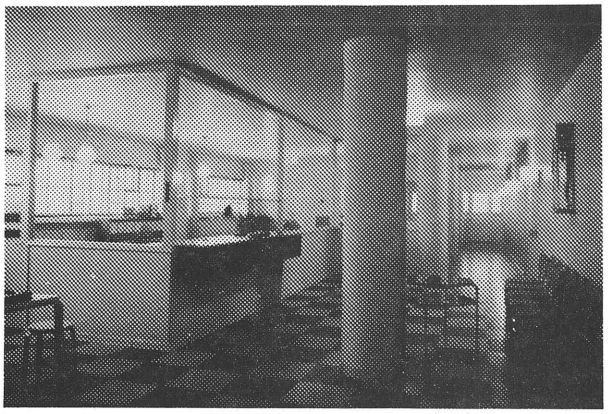
**Text based on the English summary of the monograph and interviews with Morta Bauziene and Jolita Kanciene.*

Erkki Huttunen 1928-1939

Finnish designer of business and public buildings

'Erkki Huttunen liikelaitosten ja yhteisöjen arkkitehtina 1928-1939'; by Teppo Jokinen, Jyväskylä, 1992, 299 p., ISBN 951-680-818-2; Jyväskylä Studies in the Arts no. 41, ISSN 0075-4633; 41.

by Riita Nikula



The aim of the study reported here was to survey and analyse the architectural production of Erkki Huttunen (1901-1956), starting from the commencement of his career in 1928 to his later works of 1939. No previous survey of his work is available in any detail, which is why a full list of his work is included in this study. Erkki Huttunen's commissions were generally from business companies and public organisations, the most important being the Finnish Central Cooperative (SOK) and the Finnish Alcohol Monopoly (Alko). The commissions and the expectations relating to these are presented. This background information is then used as a basis for description and analysis of the design principles of his production. The findings show that Huttunen's early works reflected the prevailing classicist movement of the 1920's in Finland. In 1930 a transitional period may be observed which follows the model of the Modern Movement in European architecture. Huttunen made a specific effort to use structures made of reinforced concrete. Simultaneous to the persuit of finding construction solutions, he also aimed at creating aesthetic forms and establishing a harmonious balance between the different parts of a building. Many of Huttunen's designs are classified as masterpieces of 1930's Finnish architecture, and his influence in spreading the Modern Movement in Finland is recognized as particularly significant.

Heralds of the new style

Teppo Jokinen's book on Erkki Huttunen as an architect of business and community buildings is a welcome new chapter in the story of Finnish functionalism.

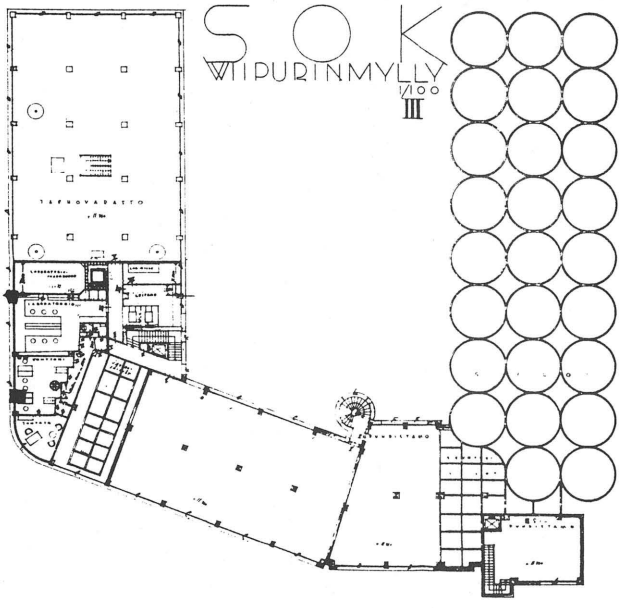
The research focuses on a fairly short period of time, the years 1928-39, when Huttunen worked for SOK and Alko, designed one chuch plus some houses for municipalities and organisations of citizens.

At that time, Huttunen's architecture shifted from Nordic Classicism towards a clear international functionalism. The tens of cooperative shops he designed were the first heralds of the new style in Finnish country towns and villages. They started the modernisation of environments until then slowly grown in the bonds of traditions, and were met by some with delight, by others with horror. 'Cooperative functionalism' was established as a colloquial term for buildings constructed inexpensively to functional designs in the new style - it was not limited to Huttunen's shops only.

An excellent source

The greatest merit of Teppo Jokinen's thesis is its conscientious empirical research. Its theoretical basis and problematics lean on fresh international research, but nothing truly new has been introduced to the prevailing paradigm. It might have been possible to continue the interesting analysis of proportional geometry. Another point of criticism is the strict limitation to the period between 1928 and 1939. As the 144 projects of those years cover the majority of Huttunen's work, would it not have been impossible to include in this research his 34 later projects as well. On the other

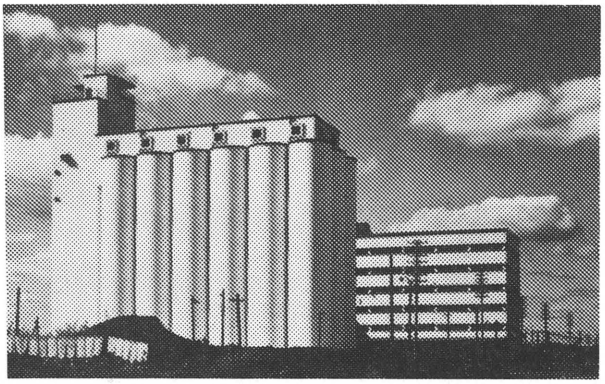
The SOK-mill in Viipuri, 1935, in some period photos and original plan.

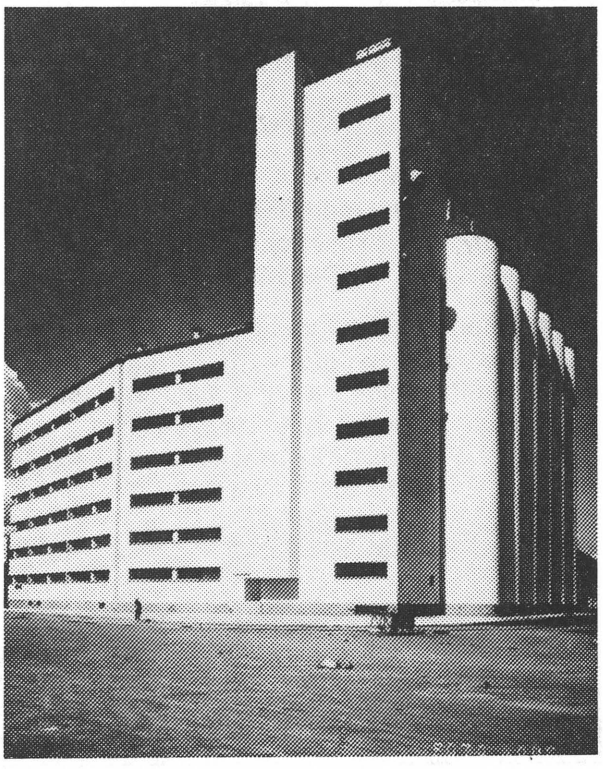


hand, focusing on the periods of classicism and functionalism contributes to the clarity of the presentation of buildings and projects. The strict outline has also favoured the researcher's respectable perfectionism. Jokinen has gone through every possible original source, which makes his analyses of the key buildings remarkably versatile and interesting.
Teppo Jokinen's book with its comprehensive catalogues and indexes will be an excellent source for all researchers of Finnish functionalism. It is as precise as a good traditional handbook. Unfortunately, only those who can read Finnish can use it.

The dissertation can be ordered from the University of Jyväskylä, 40351 Jyväskylä, Finland.

Riitta Nikula is a staffmember of the Finnish Museum of Architecture in Helsinki and co-referent to Jokinen's thesis.





Two monographs on Adalberto Libera's architecture

'Adalberto Libera'; by Francesco Garofalo and Luca Veresani, New York, Princeton Architectural Press, 1992, 208 pages, 339 b/w illustrations, ISBN 1878271 148
'Casa Malaparte'; by Marida Talamona, New York, Princeton Architectural Press, 1992, 168 pages, 45 b/w illustrations, ISBN 1878271 393

based on an announcement by the publisher

Adalberto Libera (1903-1963) was a protagonist of Italian modern architecture, indeed, an important cultural organiser during its birth, having been the leader of the Italian Movement for Rational Architecture (MIAR). Thereafter he emerged as one of the pre-eminent architects of the fascist regime, the author of key works of both everyday propaganda as well as a more enduring image of fascism. After the War and a long period of self-reflection, he became a leading figure of postWar reconstruction, and later, a significant architect and city planner during the Italian economic boom of the 1960's. Lastly, he was a professor and a theorist whose ideas, albeit rather parochial in character and, for the most part overlooked, did address the discipline's most fundamental questions.
Some of his works and projects have made Libera an easily identifiable figure in the panorama of this century : the *Palazzo dei Congressi* and the Post Office in Rome; the *Casa Malaparte* in Capri; the project for a symbolic arch for the E42 Exhibition; the single-story housing unit in Rome's Tuscolano district.
The volume by Francesco Garofalo and Luca Veresani* covers the complete works of this prolific architect. Over 70 projects are documented through more than 300 sketches, drawings, models, photographs, and brief descriptive texts. This book develops an implicit thesis about Libera's unity as an architect. By virtue of the selection criteria for the projects, the weighting of the material (almost entirely from the archive in the custody of Libera's heirs) and a web of cross references, the authors manage to connect image to image and note to note, as well as to open, address, and close the themes of his work. An introductory essay, biography, and bibliography including Libera's theoretical writings complete the monograph, bringing this great architect long-overdue attention.
The handsome book by Marida Talamona is the first in-depth examination of the *Casa Malaparte*, referred to in the past as the 20th Century's most

beautiful house. Through original correspondence, plans, and drawings, the author uncovers evidence attributing the design of the house to the client (the influential writer Curzio Malaparte) rather than the architect. The discovery that prompted the author to investigate the complex events of the house's history, is a first version of its design prepared by Libera to obtain a building permit. Another valuable component involves a number of photographs of the construction site, some with rudimentary sketches by Malaparte himself. The book includes current photographs by G. Basilico and new measured drawings by S.Y. Miura.

* *Luca Veresani is the secretary of the Italian DOCOMOMO Working party.*

Bibliography on MoMo conservation

'La conservazione del moderno: teoria e practica. Bibliografia di architetture e urbanistica/ 10'; by Lidia Fiorini and Alessandro Conti, Alinea Editrice, Firenze 1993, 84 pages, Lit. 15.000.

by Wessel de Jonge

The protection and restoration of Modern Movement architecture is a field of research and activity rapidly expanding at present. This guide includes over 500 titles for those who wish to inform themselves on works already realized as well as researches currently carried out. The volume provides detailed indexes to advance on easy accessibility of the various texts.
Lidia Fiorini and Alessandro Conti, born in 1963, concluded their studies at the Faculty of Architecture in Florence with a successful thesis on the restoration of Dudok's Town Hall in Hilversum, The Netherlands. They have participated in the First DOCOMOMO Conference in 1990 with a presentation of their research on the Royal Pavilion of the station in Florence.
This booklet started from materials the authors collected for their degree thesis. This impressive amount of materials has not been selected on subject, either modern or non-modern, or with respect to correctness of incorrectness of the interventions reported about. Even demolitions and disfigurements are covered. By including reviews and reports on conferences on the subject, the scope is further widened to the various views and theories on protection and restoration of Modern Movement architecture.

One could only be happy with this first effort to give an overview of publications dealing with the issues of DOCOMOMO's concern. Although the booklet is in Italian and, obviously, centering on articles and volumes published there, it contains a large range of titles from other countries as well. Many DOCOMOMO members will find their names in it too!
The bibliography is chronologically organized, starting with three 1956 articles campaigning for Terragni's Casa del Fascio in Como, each item with a progressive number and completed with some key-words. Very useful are the indexes of authors and architects as well as a listing of publications that uses the country and city as entries.
It is fascinating to imagine what could grow out of this bibliography in the future. Starting from a private collection of clippings that is still increasing, this booklet could be an inspiration for others abroad. My only request would be to include information on the original language(s) of the articles and to indicate whether summaries are available in other languages too. That way, it will be even more useful on an international level than it already is.

Wessel de Jonge is an architect in Rotterdam and a researcher at the Eindhoven University of Technology, the Netherlands.

EVENTS

2nd DOCOMOMO-NL Symposium
'Post-war social housing'
Rotterdam, The Netherlands, July 1st, 1993
Inquiries: DOCOMOMO-NL

2nd Nordic-Baltic Architectural Triennial
Architecture and Individuality
Tallinn, Estonia, 10-12 September, 1993
inquiries: Union of Estonian Architects
Lai 29, EE0110 Tallinn
tel: 372-442337, fax: 372-441179

3rd SAS Symposium
Architecture beyond Borders
Piestany, Slovakia, October 1993
inquiries: DOCOMOMO-Slovakia

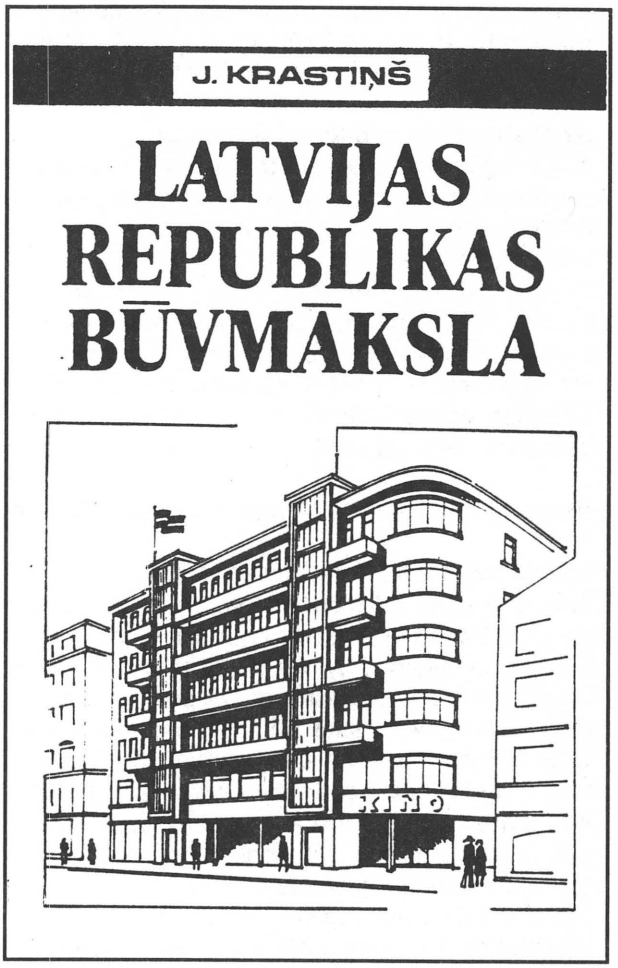
Restoration of Historical Monuments
International Conference
Tusnad-Bai, Rumania, 21-26 February, 1994
inquiries: Societatea Muzeului Ardelean
Grupul de Constructii Montaj
3400 Cluj, Rumania
Str. Rahovei 56/2
tel.: 40-95-189207

3rd International DOCOMOMO Conference
Mies van de Rohe Foundation, Barcelona
September 1994
inquiries: DOCOMOMO-Spain

Architecture of the Republic of Latvia

'Latvijas Republikas Búvmáksla'; by Jánis Krastins, Riga, 1992, 236 p., illustrated; ISBN 5-7966-0849-5.

by Jánis Dripe



Almost 60 pages of the book with the total amount of 236 pages are devoted to the problems of city planning as a reflection of Latvian urban policy of the time. First is a chapter on the effects of the national land-reformproject on urbanism and architecture in agricultural settlements after 1922. The author dedicated four chapters to urban planning: the masterplan for estates of the 1920's, the masterplan for Riga and its execution, the masterplan for Liepaja and, finally, the Ludza masterplan as an example of urban planning in the late 1930's.
A number of facts has been summarized in registers, listing information about schools, public buildings and agricultural buildings constructed in the 1920's and 30's in independent Latvia. For instance, one can get to know that after 1939 the State constructed 80 schoolbuildings each year. Also, special lists are included that inform about the activities of major and outstanding construction companies of that time in the country, etc.
Other chapters of the publication explain on building regulations, the 'architectural life' and other contextual information about the period.

The main part of the book however illustrates the various styles in Latvia in the first period of independence. In the chapters on 'Styles and stylistic trends', the most subjective part of the book, the author distinguishes four characteristic trends in the country's architecture:
- Historicism; the generalised use of architectural means of the previous periods,
- Neo-eclecticism (i.e. neo-neoclassicism); historicism, based on the classical vocabulary,
- National style; interpretation of local characteristics of vernacular timber constructions,
- Functionalism.

A seperate chapter has been included on 'memorial architecture' like monuments and cemeteries.

The author's considerations do not always correspond with those written by Jánis Lejnieks, previously published in a number of articles in the periodical *Maksla* ('Art') and his excellent book 'The architecture of Riga' (Riga, 1988). Yet, it is necessary to emphasize that everybody has the right to give his own interpretation of terms and styles. Such way of thinking gives broader exchange of professional and creative thoughts amongst collegues and members of society.

Nevertheless, these subjective notes do not alter the fact that the contents of Krastins' book are attractive and rich, and give a wealth of information.
If we are interested to give analyses of other books on Latvian architecture the choice is rather limited, since Jánis Krastins himself is an outstanding leader among writers of contemporary architectural publications on styles as mentioned before.
Finally, giving evaluation of Krastins' input, I would like to suggest our poligraphical specialists to have this book reprinted with English and German summaries. That way, this work could be of better use as an international professional communication.

Jánis Dripe is an architect in Riga. Text is an edited abstract of a review, previously published in the newspaper Literatura un Maksla *('Literature and Art') of April 2nd, 1993, in Latvian.*

National Reports

A selection of information on the Modern Movement in the participating countries, as well as news on your national DOCOMOMO working party, **sent in before October 1st, 1993**, will be published in Newsletter 10, due for November 1993.

Argentina: big public presentation
The programme 'Link with the Building Industry', presented in issue 8, is growing together with our relation with experts and surviving professionals and industries of the period.
On the 12th and 19th May in the Convention Center 'San Martin' in Buenos Aires we have organized - sponsored by the Professional Council for Architecture - a public presentation of MoMo activities and documents. It is bound to be a big occasion. Wish us luck!

(Report by Argentinian Coordinator Mabel Scarone)

Brazil: MoMo in research programs
Financial support for our one year research group on early MoMo technology in Bahia (a Brazilian state) was obtained by our group at the Faculdade de Arquitetura. This research will be based on statements of witnesses and documentation of the 1930's. It intends to be a first approach on that matter and is being coordinated by the architect Ana Maria Lacerda. We are establishing contacts with other Brazilian institutions to begin similar research in their region/state.
About the Brazilian register, we have got the information that some institutions are (or were) working individually for their region. Our aim was to discuss these regional lists during the Latin American Conference on Inventory of Modern Architecture, that would be organized in July 1993 by the official Brazilian Heritage. Unfortunately, we were un-officially informed that this meeting was postponed, because the recent governmental changes in our country. So DOCOMOMO-Brazil decided to join these individual experiences until the end of 1993, in organizing a Brazilian meeting.
'Modern Architecture in Brazil' is a new direction in research of the post-graduate course of the School of Engineering of São Carlos/USP, São Paulo.
Address for contacts:
EESC/USP - Dep. de Arquitetura e Planejamento
Rua Dr. Carlos Botelho, 1465;
13560-220 São Carlos-SP; tel: 55-162-722297.

The coordination of the 8th Specialized Course on the Conservation of Monuments and the Rehabilitation of Historic Cities (by Unesco and Brazilian Heritage), that is taking place at the University of Bahia in Salvador, accepted a proposal by DOCOMOMO-Brazil: to include for the first time the item of MoMo architectural conservation in its programme and to make an announcement of DOCOMOMO's activities.
The course receives architects, urbanists and engineers from the whole of Latin America, as well as Portugal and Portuguese Africa.

(Report by Brazilian coordinator Anna Beatriz Galvão)

Canada / Québec: recruiting members
While currently completing our register of representative modernist buildings in Québec, Montréal Moderne is being incorporated under the name DOCOMOMO Quebec. On our meeting on April 6th, we have made our decisions concerning the questions of regionalism and membership fee as demanded by the international chairman in the last newsletter. We are actively recruiting members and are considering organizing an exhibition in 1994 to promote the actions of DOCOMOMO Québec and DOCOMOMO International.

(Report by France Vanlaethem, coordinator for DOCOMOMO in Québec)

Croatia: MoMo register being compiled
The Croatian group was founded under the auspices of the Association of Croatian Architects and it shall operate as an autonomous working party of the Association.
It shall also closely cooperate with the scientific research project 'Atlas of Croatian Architecture' which is running at the Faculty of Architecture of Zagreb University for some 10 years, thanks to the life-time efforts by Prof. Neven Segvic. Segvic taught 19th and 20th Centuries architecture for more than 40 years and he was the greatest admirer and promotor of Croatian MoMo architecture, participating in it since the late 1930's. At the moment Aleksander Laslo and Andrej Uchytil are editing a special issue of the *Covjek & Prostor* magazine devoted to this life-work of Neven Segvic.
At present the Croatian DOCOMOMO Working group is about to compile from various sources lists of cited MoMo buildings to form a data base for preperation of a National Register. We will keep you informed about the process of our work.

(Report by Croatian coordinator Aleksander Laslo)

Russia/CIS: guide-book on St. Petersburg
DOCOMOMO-Russia held a meeting in January which opened with a detailed report on the events and debates of the Bauhaus conference by Moscow group member Masha Nashchokina. Extensive discussion followed of how the group should develop most appropriately under Russian conditions, whether by fostering a public membership, which is still a rather unaccustomed model in Russia, or by continuing as a network of

small expert groups.
Distances are great, and the effects of recent five-fold increases in all internal travel fares are having a serious impact on conducting all nationwide professional activities. Each major centre thus operates more or less independently. Moscow and St. Petersburg however have a common format for their Registers, based on British, French and Italian models presented at the Bauhaus conference.

In Moscow the centre for this work is the Schushev Museum of Architecture, of which DOCOMOMO Chairman Vladimir Rezvin is Director, and its associate Research Institute for Architecture and Townplanning History, VNIITAG.
The core of the St. Petersburg group is located in the Museum of History of St. Petersburg where Boris Kirikov, as Deputy Director and Masha Makagonova, Senior Research Fellow, face an even more difficult battle for recognition of Modern Movement monuments than in Moscow.
Most Moscow works are relatively well known, the problems there lie in getting practical attention to them in the present period of technical and economical collapse.

In St. Petersburg the legacy is in many ways no less interesting and important but remains virtually unknown, and basic documentation is still required. With Catherine Cooke of DOCOMOMO-UK, they are preparing a documentary guide-book that will establish its place and importance more solidly in official and international circles.

(Report by Catherine Cooke, occasionally our correspondent in the CIS)

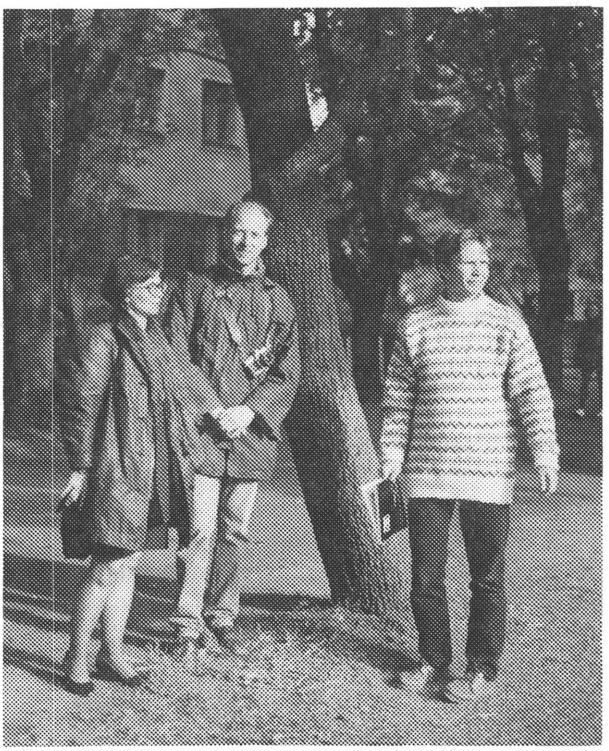
Estonia: functionalist' tradition
The Estonian DOCOMOMO-group first came together at the DOCOMOMO Conference in Dessau (Karin Hallas, Krista Kodres and Mart Kalm).
After the conference, articles about DOCOMOMO were published in Estonian periodicals (Karin Hallas in 'Sirp' 1992, 9.10; Krista Kodres in 'Ehitus-kunst' 1993 nr.7). In the library of the Estonian Architectural Museum a section of DOCOMOMO publications was established.
On April 12th, 1993, the Estonian DOCOMOMO group held an official meeting whith the aim to discuss further activities.
Docent of the Tallinn Art University, the arthistorian Leo Gens and architect Jaan Sotter were welcomed as new members of DOCOMOMO in Estonia.
The statute of the Estonian DOCOMOMO Working party was accepted and it was decided that the group will be officially registered in the Estonian Ministry of Culture and Education in order to make the activities of the group more effective.
During the discussion on a working program of the group, the necessity of the following three points was stressed:

1 To arrange personal contacts with Estonian regional architects who are responsible for the architectural heritage and contemporary architecture in Estonian regions, by sending them a letter with information about DOCOMOMO Estonia, its aims and activities.
2 To use TV-programs in explaining the role of modern architecture and its importance.
3 To start discussions about a national MoMo-register in May 1993.

According to the statute of the Estonian Working party, the national representative will be elected for the period of two years. Karin Hallas was accepted as a national representative until April 12th, 1995.
It was decided, that all the documentation concerning the register will be saved in the Museum of Estonian Architecture. It was pointed out that the aims of the group and those of the Estonian Museum of Architecture are closely linked. The last exhibition of the Museum, 'Otherwise. Functionalism and neo-functionalism in Estonian architecture' was exhibited in the Museum of Finnish Architecture in Helsinki from 24 February to 8 April 1993. The continuity of the Estonian functionalist' traditions was followed there. The exhibition was compiled by Krista Kodres and Mart Kalm.

(Report by Estonian representative Karin Hallas)

DOCOMOMO's International Secretary Wessel de Jonge during his recent visit to the Uus Tare Estate, Tallinn, 1930-32. Left Karin Hallas, right Mart Kalm, members of the Estonian group.



Germany: watch over two MoMo buildings
German DOCOMOMO members had a meeting on May 1st and 2nd in Berlin. Three experts took part in such a meeting for the first time, being mrs. Wahrhaftig (Society for Research of the Life and Works of German-speaking Jewish Architects), mrs. Störtkuhl (Federal Institute for East-German Culture and History) and mr. Körner (Bauhaus Dessau Collection).
One of the topics was the situation concerning Mendelsohn's Luckenwalde Hat-factory (see Newsletter 8). The regional conservation official (*Landeskonservator*) replied to a letter sent by the German group and contacts are being established with the Luckenwalde municipality. Sofar, the situation has not yet improved, but we hope to keep you informed.
A national register of MoMo architecture was again discussed. The group decided to have a few models developed on the basis of experiences in Berlin, Dessau and Stuttgart. From these, a general proposal will be composed for discussion within the German group.
The German working-party decided to send a letter of concern to the Chemnitz Department for Conservation about the Plauen dairy-farm, that is threatened by demolition after it closed recently .

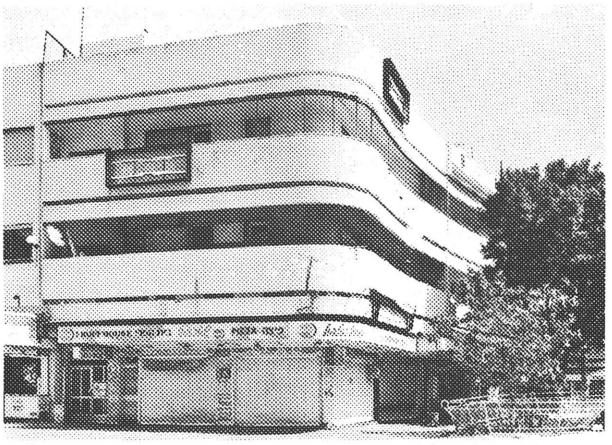
(Report by Karl-Heinz Burmeister, secretary of DOCOMOMO Germany)

Indonesia: Bandung Heritage Society
DOCOMOMO got in touch with the Bandung Society for Heritage Conservation. Executive secretary of the Society, mrs. Frances B. Affandy, informed us about their work and expressed the interest of their organisation to establish ties with DOCOMOMO.
Bandung is a city in West Java, well-known for its MoMo heritage. In cooperation with some experts from the Netherlands (see Cor Passchier's article in Newsletter 6) the Society completed an initial inventory of noteworthy buildings in Bandung, numbering 100 sites. This list has been augmented and today about 700 objects have been documented, although certainly not fully.

At present, the Society is soliciting membership for Indonesia in Icomos to advance the preservation of the rich MoMo heritage in Bandung.

DOCOMOMO members are invited to visit Bandung and the Society's office and, if announced in advance, they would be happy to set up a tour of the city's MoMo architecture. Please contact: Bandung Society for Heritage Conservation, Mrs. Frances B. Affandy, Savoy Homann Hotel, Jalan Asia Afrika 112, Bandung 40261, West Java Indonesia, Tel: (22) 432244, Fax: (22) 441366.

(Report composed by the editor)



An exhibition of photos by Irmel Kamp-Bandau, *Neues Bauen in Tel Aviv 1930-1939*, runs at the Institute for Foreign Relations in Stuttgart until July 25th, 1993.

Israel: consolidating a network
The Bezalel Academy of Fine Arts and Design in Jerusalem decided to help DOCOMOMO Israel by establishing the group as a public foundation. Several experts throughout the country already contacted the coordinator of the working party. Particularly some officials from the Tel Aviv Municipality expressed their great interest in DOCOMOMO's work.
A conference on 'Bauhaus' buildings is scheduled for next year and DOCOMOMO Israel will be co-organisor of that event. We will keep you informed.

(Report composed by the editor)

Italy: first national conference
The first DOCOMOMO Italia conference was held on April 27th, 1993 in Rome. The program of the day had been scheduled as follows:
- Morning, presentation of various papers,
- Early afternoon, debate,
- Late afternoon, official presentation of the Italian DOCOMOMO Working party.

So conceived, the conference has had two different objectives, a scientific one as well as a more organisational one. As the goal of the conference was mainly seen a wide presentation of the current researches on the various issues concerning safeguarding, conservation and restoration of modern monuments.
Among the participants, more than thirty people, were many scholars, professors and architects, as representatives of various universities, public administrations and professional offices.
The participation has largely covered the Italian cultural geography: Torino (Polytechnic Schools),

Bologna, Florence (Faculty of Architecture), Rome (Faculty of Architecture - University 'La Sapienza', and Faculty of Engineering - University 'Tor Vergata'), Bari (Faculty of Architecture), Reggio Calabria (Faculty of Architecture), Potenza (Faculty of Engineering), Matera.
Several other interested people and institutions have apologised for their absence, but expressed their full interest in the initiative. Among these the School of Architecture of the Milanese Polytechnic, where several students are currently involved in final theses concerning the restoration of modern buildings.
During the morning session many stimulating papers have been delivered on the following topics: History and documentation; History of tecniques; Technologies, products and materials; Criteria for transformation and new design; Register. Among the speakers: Poretti, Montenero, Bardelli, Paris, Saito, Saggio, Marcosano, Saggioro, Barucci, Vocaturo, Morabito, Del Maro. Maristella Casciato and Luca Veresani, who have chaired the conference, present an accurate report of the papers' topics and the afternoon debate elsewhere in this issue.
In the second half of the afternoon the first organising assembly of the Italian DOCOMOMO Working party (denominated DOCOMOMO Italia) has taken place.
The items on the agenda were:
- Membership fee to DOCOMOMO Italia
- Approval of the DOCOMOMO Italia Constitution
- Election of a Steering Committee
- Program of activities.

The yearly membership fee to DOCOMOMO Italia is set at £it.50.000,-. An international membership fee of US $100,- will be gathered separately.

The assembly has unanimously approved the Constitution and elected as members of the Steering Committee: Maristella Casciato, Giorgio Muratore, Sergio Poretti, Maria Caterina Redini, Antonino Saggio, Carla Saggioro and Luca Veresani. The latter will act as the Committee's secretary.

Many participants have underlined that in the near future the major activity of the Italian Working party needs to be focused on the national register and the criteria for listing buildings.
In order to match this goal, a special commission has been established, whose objectives are the above mentioned criteria for selection and listing of buildings at a national level and the elaboration of a register fiche, also responding to the international headings and recommendations.
The commission is open to more adherents. At the present state have offered their contribution: Casciato, Montenero and Vocaturo (for the Lazio Region), Barucci (Calabria and Sicila), Bosia (Piemonte), Verger (Friuli, Venezia and Giulia) and Crociani (Toscana).

We have received a document from the Architects' Council of Bologna concerning a safeguarding campaign for the Esprit Nouveau Pavilion in Bologna and for Bottoni's Villa Muggia at Imola (see Newsletter 8). The assembly has underlined the extreme diversity of the two cases and the related priority. The former is a 'replica' of Le Corbusier's Pavilion of 1925, re-built in 1977. The latter is one of the finest buildings by Bottoni and Pucci of the 1930's. DOCOMOMO Italia has decided that the participants, as individuals, could sign the appeal to the mayors of the two cities and to the Regional Superintendence for Monuments of Emilia Romagna (see elsewhere in this issue).

Though the cultural and critical approach totally diverges from the DOCOMOMO Italia plan of action, we do consider it useful to inform you that the Faculty of Architecture of the Milanese Polytechnic announced a symposium on 'Modern and Modernity', articulated on the following topics: Unknown or Forgotten; Material and Techniques; Restored Modern; Gardens. The symposium took place at the Faculty on May 11-12th, 1993.

No more recent developments for the Littorio Youth Movement Building at Campobasso (see Newsletter 8) and bad news concerning the total lack of protection of modern buildings by law.
Once upon a time there was a beautiful villa up in the hills at Albaro, overlooking Genova and the sea. Carlo Daneri, a prominent in modern Italian architecture, was responsible for the design. The building was erected in two years, 1934-35. In less than two days the villa has been thorn down, and now, the only remaining memory is a wide hole. Its private ownership has made possible such a destructive ruin. At the moment, the Superintendence for Monuments, Environment and Archaeology of the Liguria Region has stopped any further construction, and Anna Daneri, the architect's daughter, has reported to the judicial authority.

We will report on another successful meeting of DOCOMOMO Italia on June 16th, in the next issue.

(Report by Maristella Casciato and Luca Veresani of the Italian Working party Steering Committee)

Japan: taking part in DOCOMOMO
Through existing channels of exchange between France and Japan, some distinguished experts in our field decided to establish a national working party in Japan. The group will be coordinated by Prof. Kato Kunio from Kyoto, a well known architect in Japan, especially in the Kansai area. He worked in France many years and today teaches at the Department of Architecture at Kyoto University.
We like to thank Véronique Brindeau for her efforts in provisionally coordinating DOCOMOMO's activities in Japan sofar.

Mr. Jacques-Franck Degioanni, architect in Paris, is currently working in Kyoto, invited by the French Foreign Office, on a research concerning MoMo architecture in Japan between 1920 and 1950. After his return to France he will act as a French representative for the Japanese group (after October 1st: 42 bis rue des Cascades, F-75020 Paris, tel/fax +33-1-46367661).

The Japanese group can be contacted through: Prof. Kato Kunio, Fac. of Engineering, Dept. of Architecture, Kyoto University, Sakyo ku, Kyoto 606, Japan, tel: + 75 - 7535748.

(Report composed by the editor)

Latvia: MoMo inventory has started

The Latvian DOCOMOMO Working group's coordinator Janis Krastins is commisioned by the State Inspection of Preservation of the Cultural Heritage to prepare inventories of buildings in the two most luxureous residential areas in Riga: Mezaparks and Teika.

The planning of the first, formerly *Kaiserwald,* has been realised in two stages: landscape architect and director of Riga Parks G. Kuphaldt was the initiator of the first stage in 1901, and H. Jansen, an architect from Berlin, produced the second set of plans in 1911.

Mezaparks is one of the first Garden City examples in Europe; the construction works started at 1902 and up to the First World War, 125 villas were erected, mostly in art nouveau and *Heimatkunst*-style.

The most active development took place in the period from 1928 to 1932, in spite of the economical crisis. Then more than 350 detached houses were built, mostly in the MoMo vocabulary, but there are examples of vernacular national romanticism too. As a result of the research work, 60 MoMo style villas were included in the inventory of protected buildings.

Even more interesting is the history of another residential area: Teika, in the Eastern part of Riga. It was named after the cinema *Teika* (Folk-tale), which was built in the very center of the radially planned settlement in the late 1920's. In this area up to the Second World War more than 500 houses were built.

Predominant was the type of a two-storey dwelling-house with a maximum of four flats, one of them the owner's. There are lot of two-storey houses too, where one flat is on the ground floor and the second upstairs. The overwhelming majority of the housing is planned and constructed in forms, typical for MoMo style.

The research work in Teika is likely to proceed for some period of time.

(Report by Janis Krastins, member of the Latvian DOCOMOMO Working group)

Lithuania: first MoMo register

Since its recent establishment the Lithuanian DOCOMOMO group has already extended its activities. The last months were the organization period of our working group. Four meetings took place. The group debated on the period of MoMo architecture in Lithuania and decided to limit activities to the period 1920-1943. The first short list of buildings was accepted, but it will be extended in the future. We will make efforts to list more buildings for official protection by law too. We strive for increasing activities and involving into the work for DOCOMOMO's aims all the specialists from various institutions. There are not very many of them, so J. Vanagas will organize senior students of the Kaunas University of Technology to study MoMo architecture and to help in the work of the group.

None of our work is yet funded and we are seeking for finance. This problem probably will be solved easier after the law on sponsoring will be adopted.

We can report about two exhibitions. The exhibition on Vytautas Landsbergis' 100th Anniversary, organized by Morta Bauziene, opened in March. J. Kanciene and J. Minkevicius prepared a very interesting book about the architect's long creative life (*Architektas Vytautas Landsbergis-Zemkalnis*). The other one will be an exhibition on Alfred Kulpa. It will be arranged in May in the Architecture Museum. A. Kulpa is an emigrant from Lithuania who works in Canada today. He projected particularly many churches for Lithuanian emigrants and his projects are interesting for us in looking for consensus between Lithuanian country style and modernity.

(Report by Lithuanian coordinator Morta Bauziene)

The Netherlands: more efficiently organised

The organisation of the Netherlands Working party has changed. The original working party has been split up into four smaller groups, each with a specific subject or task: Philosophy, Register, Watchdog, and Public Relations. In order to give the working party a legal status - which is necessary to be able to appeal in court against building or demolishment plans or to raise funds - also a foundation has been established. This foundation will be the central 'service-unit' for the four working groups.

The Netherlands DOCOMOMO Foundation will produce a periodical national newsletter, that will appear 3 or 4 times a year. This newsletter will provide news from the working groups, articles by DOCOMOMO members and a list of events. Anybody who wishes to receive the national newsletter can subscribe at our new address as mentioned in the list of working parties. The costs (for subscription outside the Netherlands) will be about Dfl. 20,- (about US$ 12) a year.

The Register group is responsible for creating a national list of MoMo buildings and a DOCOMOMO database. The group is working on computerising files of MoMo-objects and is studying a system of relative valuation. The register group consists of Dirk Baalman (chairman), Anita Blom, Mariet Willinge and Marieke Kuipers (advisor).
The Philosophy group is responsible for the debate on the definition of MoMo in essence and time. It will be clear that there is a close interrelation between the Register group and the Philosophy group. Both groups will publish the results of their work regularly in the national newsletter. The Philosophy group is chaired by Marieke Kuipers. Members are Jan Piet Kloos, Hubert-Jan Henket, Jaap Franso, Ben Rebel and Joris Molenaar.
The Watchdog group has the task to strive for the protection of endangered MoMo buildings and to take the necessary action to convince the authorities and private parties of the importance of these buildings. The Watchdog group tracks these cases and initiates the proper actions. The group has a nationwide network of correspondents, that will ring the alarmbell if something goes wrong in their region. Priority will be given to the registered MoMo buildings etc. Therefore there will be a close collaboration with the Register group. Members are: Peters van Dun (chairman), Jan Bernard Vercauteren, Anita Blom, Rob Appell, Fred Dubbeling and Wessel de Jonge (advisor).
The Public Relations group organizes an annual study-conference on the international Day of Architecture, July 1st. For this year's programme: see below. Also, the PR group will organize other events, like exhibitions, and is responsible for the national newsletter. Members are: Wessel de Jonge (chairman), Victor Freyser and Rob Docter.
The Netherlands DOCOMOMO Foundation is the formal umbrella-organisation for the working groups. The board consists of: Hubert-Jan Henket (chairman), Dirk Baalman (vice-chairman), Rob Docter (secretary-treasurer) and Ben Rebel.

This year's annual DOCOMOMO-NL conference will be held in Rotterdam, on July 1st. Subject of the discussion will be the postWar period in social housing and urban design. Not in the first place from an architectural point of view, but with an emphasis on the political and socio-cultural ambitions. Five keynote speakers, who actually have been involved on the side of the municipalities, the Ministry of Housing and Planning, the architects and planners and the building industry, will get into the matter from their own experiences. After that, a forum of specialists discusses the meaning and the relevancy of these townparts for the contemporary social, technical and cultural demands. What can we learn from postWar modernism and what ambitions are still actual. The conference will be organized as a part of the AIR Alexander manifestation of the Rotterdam Arts Foundation.

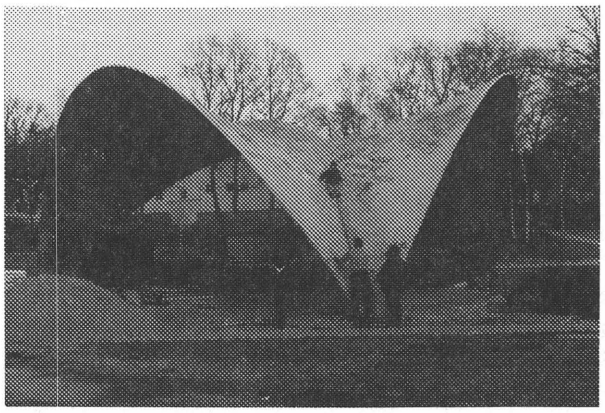
The Van Eesteren-Fluck & Van Lohuizen Foundation is taking action to preserve the Gaspard de Coligny School in The Hague. This school, designed by C. Van Eesteren, is part of the urban extension plan Molensloot (also designed by Van Eesteren, in 1928). An appeal to the Council of State is due by the end of May.
The Olympic Stadium in Amsterdam (see the last Newsletter) is still under threat. The local city-council has decided to build a housing complex on the stadium premises. The stadium should therefore be demolished. However, since the stadium is a listed building, the Minister of Culture must give a permit. Hopefully she will let the cultural value of the building prevail.
A number of professors at the Faculty of Architecture of the University of Technology in Delft are trying to save the open-air swimming pool by Van Loghem in Haarlem. Also the Watchdog group is involved. More news in the next issue.

Please note our change of adress; see list of working parties.

(Report by DOCOMOMO-NL secretary Rob Docter)

Norway: case lost but debate encouraged
DOCOMOMO Norge - the Norwegian Working party - was founded January 12th, 1993. Our group is situated in Oslo and has about 20 members, with corresponding members in other parts of the country.
The work with the register is slowly progressing. We plan to have a preliminary list from the period 1925 to 1950 ready by January 1st, 1994.
We have focused on some important public buildings from the 1930's which are in danger of being altered. In Oslo there are still two authentic spaes, one indoor swimmingpool and a cinema that are both great examples of the functionalist period. We are also trying to raise interest in the Norwegian telephonebooth - a kiosk from the mid 1930's which is now being changed for new ones also suitable for the handicapped.
The main focus has been 'Candela-skallet' - a hyperbolic paraboloid shell in reinforced concrete designed by the Mexican architect Felix Candela in

Candela's demolished hyperbolic paraboloid in Oslo.



1965. The shell was located in a corner of the Vigeland sculpture garden, as a part of a temporary gardening exhibition. Concrete was the theme of the exhibit and the shell was a landmark in Norwegian concrete technology. Nevertheless the shell was being neglected for many years and thereby criticized for being a disturbing element in the park. On April 19th the shell was demolished - in spite of our protests - and the sculpture park is now completed according to Vigeland's original plan. From our point of view the positive aspect of this conflict was that we managed to focus massmedia on modern architecture and to raise a debate about the public landmark program.

(Report by Norwegian coordinator Birgitte Sauge)

Poland: MoMo documentation by students

Rapid economic changes which are continuously taking place in Poland do not favour stabilisation, a wish to invest in works of art, or else the renovation of monuments. Thus, if one looks around, it is really difficult to spot any particularly interesting big conservation activity. Individual renovation jobs are, on the whole, associated with saving the buildings or their parts from complete destruction. It is for this very reason that the Polish Section of DOCOMOMO is primarily concerned with gathering information and completing the records regarding the existing modern buildings and complexes.

What is particularly worth noting in this context is the activity of some members of the Faculty of Architecture at the Kraków Polytechnic. In the Department of Architecture of the 19th and 20th Centuries, headed by Prof. Andrzej Kadluczka, an archive of Kraków's modernist architecture has been created. And although the city was founded already in the year 1264 and the majority of its centuries' old buildings have been very well preserved, the modernist period has also bequeathed to the city a mulritude of charming monuments of architecture. It is this very 20th Century urban tissue which is not as adequately preserved as many older buildings. Efforts are being made to merely secure it against the adverse effects of time. The above situation, which is to some extent understandable in Kraków, has created ideal conditions for conducting classes and seminars for students of architecture. The latter ones are thereby given a chance to research the modernist architecture in Kraków, under the supervision of such experienced teachers and architects as Dr.arch. Krystyna Styrna -Bartkowicz, Dr.arch. Ewa Weclawowicz-Gyurkovich, Dr.arch. Krystyna Januszkiewicz and Arch. Jacek Czubinski. The buildings themselves, which were erected in the period between the end of the 19th Century and the middle of our century, are mostly devoid of the heavy historical decoration and on the whole represent less complex forms. Therefore, they seem to constitute ideal topics for the students' projects. Another interesting aspect of the entire undertaking is that one can still come across people who remember the times when these buildings had been designed, erected, or else in their very prime period of existance. Thanks to their stories and memories, the students have an excellent chance of experiencing the atmosphere of many years ago and often of meeting relatives of famous architects.

Initially, the students' task consists in gathering the existing records and documents, by exploring either the Urban Architectural Archives or else the private dossiers of building owners, their tenants or administrators. The scope of the students' projects also includes the presentation of original materials in the shape of Xerox copies and photographs. On the basis of the collected records and documents, the students then draw all the necessary plans, sections and elevations. The most important element of the project is the axonometric drawing of the entire building. The spatial presentation of the building from an elevated vantage point (horizon), which reminds one of a three-dimensional model, creates unique possibilities as regards the perception of architectural activities and the formal analysis of the building. The same building, perceived form the natural horizon, is also presented in the projects in the form of an up-to-date photographic presentation, or else a hand-made perspective drawings.The thus prepared illustrative part of the project is supplemented with a description containing the date of erection of the building, the names of the designers, owners or administrators, the chief functions of the building, as well as a short history of the building up to the present. The descriptions often contain attempts at a stylistic analysis in the context of contemporary architectural transformations in Europe.

The projects, which have been collected for three years now with a frequence of about 40 each year, have helped us to build up quite an archive. Initially, it were the most interesting villas and buildings in the city-center that became the target of these studies. Over time, the interest shifted to the buildings situated on the outskirts of the city. It seems that in the course of the next few years, the majority of the more significant buildings will have become recorded.

It will, however, remain to us to fully research the collected materials, catalogue them and make them available to the general public. We can only hope that the above tasks will be performed quickly and that they will be executed with the same enthusiasm and interest which is displayed by the Kraków students of architecture who now realize their class projects.

(Report by Maria Jolanta Zychowska, secretary of the Polish DOCOMOMO Section)

Portugal: a new working party

In Portugal a rather informal group of mostly architects has been formed recently as a national branch of DOCOMOMO. The working party makes use of two assembly points, one in Lisbon and one in the North, the latter using the existing structure of a cultural cooperative with the same objectives.
The members of the group are: Lida Seara, Fernando Larangeira and Fernanda Lage (all architects), Isabel Ribeiro (architectural historian), Renato Santos, João Laranje and Alexandre Monteiro (architectural students) and architect José Manuel Pedreirinho as coordinator.
The group decided to start working on three main objectives: a database on MoMo buildings in Portugal, a photographic archive as well as a documentation of texts published on books and reviews about modern architecture or modern Portuguese buildings. As there is almost no systematic documentation yet available in Portugal, the group obviously agreed that this should be the first work to be done. It will be the necessary basis for any subsequent research work.
Also, the group considers to prepare material on specific buildings and to start with four buildings that are in totally different situations:

- the individual house in Hónorio Lima Street in Porto, by architect Viana de Lima, that has been demolished.
- The Armazéns Frigorificos de Massarelos in Porto, by architect Junuário, that is semi-destructed.
- the Jornal de Noticias building in Porto, by architect Rogério de Azevedo, that has recently been reconstructed externally.
- the Instituto Superior Técnico in Lisbon by architect Pardal Monteiro, that is actually in the process of re-development.

About all these subjects, and mainly on the database project, we would like to get in touch with other national groups who are dealing with such experiments as well, and to try to coordinate our work and structure.

(Report by José Manuel Pedreirinho, coordinator of the Portuguese group)

Scotland: MoMo part of Edinburgh Festival

An exhibition entitled 'Scotland and the Brave New World' on postWar architecture in our country will be held at the Royal Incorporation of Architects in Scotland in cooperation with the DOCOMOMO Scottisch National Group. The event will be opened on August 16th (see exhibitions).
Also, a series of talks by architects or patrons about individual buildings in Scotland, presented in association with DOCOMOMO are scheduled for this Summer.
The talks would take place alongside RFACS's Festival Exhibition, which features some of the professional creative work of past Royal Commisioners in Scotland and providing a useful link with the Royal Incorporation of Architects in Scotland Exhibition showing selected Scottish buildings constructed between 1945 and 1970.
We envisage the format of these events as a short talk by the architect or (in one case) the patron of key Scottish buildings of this period, developing into a conversation with another architect or critic. We hope, for instance, to include: John Richards/ Prof. Andy McMillan on the Royal Commonwealth Pool, Edinburgh; Bernat Klein/ Peter Womersley on House and Textile Design Studio, Borders; Robert Steedman/ David Page on Avisfield, private house, Edinburgh; Sir William Whitfield/Dr. Patrick Nuttgens on Glasgow University Library; Sir Anthony Wheeler/ Charles McKean on housing development at Dysart, Fife; Prof. Isi Metzstein/ Mark Baines on St. Peter's College, Cardross, Strathclyde.
In bringing together the architects and patrons of these key buildings from our much neglected and little respected recent Scottish past, it would seem a wasted opportunity not to record the conversations or discussions. The talks might be translated and published in book form. This could take the form of 'conversations with an architect'.

(Report by Miles Glendinning, DOCOMOMO Scotland)

Slovakia: national MoMo register prepared

After January 1st 1993 when former Czechoslovakia was divided into two separate republics - Czech and Slovak - the official national working party DOCOMOMO Slovakia was established formally in Bratislava with the kind support and help from the Slovak Association of Architects - SAS.
DOCOMOMO Slovakia is a rather small but enthusiastic group and its members are:

- Matus Dulla, architect and critic (Slovak Technical University)
- Klara Kubickova, art historian, chairwoman of DOCOMOMO Slovakia
- Lubo Mrna, architect (Slovak Institute for Protection of Monuments)
- Rudolf Masny jr., architect (Slovak Institute for Protection of Monuments)
- Henrieta Moravcikova, architect (Slovak Academy of Sciences)
- Elena Szolgayova, architect, secretary of DOCOMOMO Slovakia
- Stefan Slachta, architect and lecturer (Academy of Fine Arts)
- Anna Zajkova, architect (Slovak National Gallery)

Since the Conference at the Bauhaus we have prepared the first version of the national 'top register' and in the second half of 1993 (after the notification of the agreed guidelines by the ISC on Registers) we will complete a formal register for inclusion in the international register by January 1994.

At present we are compiling lists of buildings, sites and neighbourhoods under threat which we would like to recommend for the second part of the register. We hope to find some 'forgotten' interesting buildings during this work.
There is also the possibility of mutual cooperation and consultation with the official institutions in the field of the protection of monuments (e.g. there are about 20 local offices of the Slovak Institute for Preservation of Monuments whom we can work with).
However, none of our work is yet funded. Nevetherless we do have some help from SAS (as members of SAS) and we have also applied for and hope to get some financial support from the foundation Pro Slovakia for our activities, such as field research, photos and documentation, a leaflet on the 'top register' both in Slovak and English, etc.
A real help for us in this is the Documentation Centre of the Slovak Institute for Preservation of Monuments in Bratislava. This institution has been established in August 1992 in order to provide a body for collecting documents on 20th Century architecture in Slovakia, by absence of a Slovak architectural museum. The Centre concentrates on project drawings, photos, publications, sketches, models and other works depicting an architect's life and works. These activities are for the time being financially supported by Pro Slovakia. Selection of the offered materials is done by a committee, that sofar decided to enter 12.000 pieces in the collection.
We can also report about a successful exhibition on the architect Michal Scheer (one of the few architects from the MoMo period still alive) in the Slovak National Gallery. Also, we are preparing in cooperation with the Slovak Association of Architects and the Slovak National Museum an exhibition on Friedrich Weinwurm, one of the best architects of the Modern Movement in our country, to be opened in May this year in Bratislava.

(Report by Slovak secretary Elena Szolgayova and Rudolf Masny)

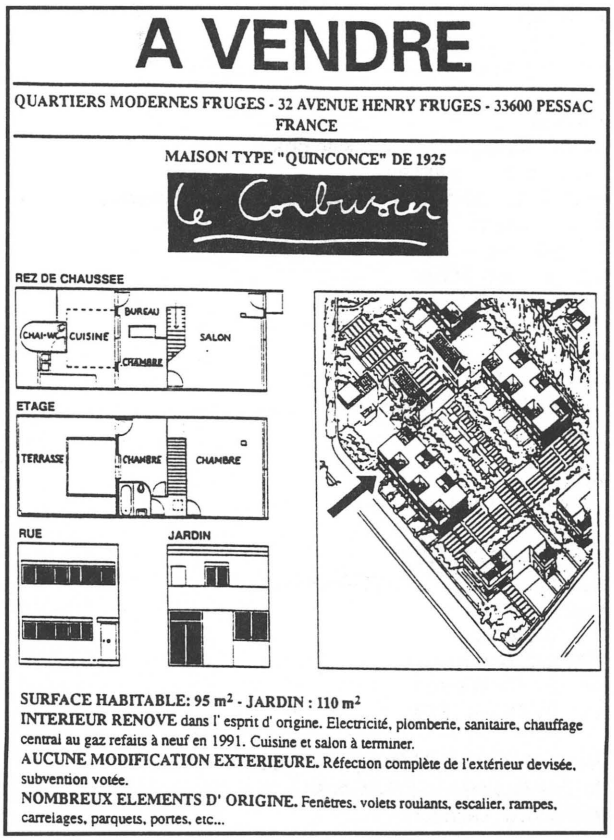
Sweden: three campaigns for MoMo buildings
Since the successful DOCOMOMO conference in Stockholm in October 1992 the Swedish Working party has got in touch with several interesting MoMo objects and persons taking interest in or working with MoMo architecture. Our book 'Functionalism - worth protecting' has been spread and well received.
Some MoMo objects have lately been paid extra attention to, i.e. a huge area, called Södra Ängby, in Stockholm with 500 one-family houses from the 1930's, all in a homogeneous MoMo-style. It is now suggested to protect these by law concerning the type of extensions allowed to be made.
Also to the Sveaplan School from 1936 in Stockholm has been given special attention as it is now being sold by the city. This is one of the most important buildings from the time, with few changes but in a rather bad state. It has been suggested as a 'Building Memorial Monument' by the Board of Antiquities. The Swedish DOCOMOMO Working party has written articles about it trying to save it, but for the moment nobody knows what will happen.
A third object which is now under discussion is Markelius' famous Concert Hall in Helsingborg from 1932, which entrance part and glazed front has been changed in a clumsy way some years ago.
The working party is also working on making the city put up a big sign or model at the place where the famous Stockholm exhibition of 1930 was held. It seems as if we could be successful in this matter.
Unfortunately the Swedish working party's capacity has been reduced due to Eva Rudberg being rather seriously ill since winter time.

(Report by national representative Eva Rudberg)

United Kingdom: postWar schools listed
The frequency of our symposia has been doubled thanks to help with funding from the Arts Council. Our second event, held on 11th March, adressed the problems of education about modern architecture and its conservation. There has been very good publicity and the report by Jeremy Melvin and Paul Finch is to be found elsewhere in this issue.
It was unfortunate that Herman Hertzberger was suddenly taken ill and could not give his lecture. He will however come to London on May 5th and will talk then. The title of his lecture is 'The Culture of Modernism' and we hope to publish this in the next UK Newsletter.
Regarding our commitment to documentation we are encouraging all the UK Schools of Architecture (38) to help with the establishment of an archive of measured drawings of modern buildings. This will be a valuable resource and will be made available for study.
We are actively helping to set up a course on the conservation of modern architecture and are discussing this with the Architectural Association.
The Institute of Advanced Architecture Studies at York is organising a three day conference in May at which DOCOMOMO will be well represented. John Allan will speak on *Restoring the Pioneers*; Susan Macdonald, our Honourable Secretary will talk about Harry Seidler's House in Sydney and the conservation methology applied; Sherban Cantacuzino will discuss the Royal Fine Arts Commisions role and the writer will explain the role of DOCOMOMO. The conference proceedings will be published.
Our case work is proving very demanding with many distinguishing modern buildings under threat

of either demolition or neglect.
We are pleased that the first concrete house of F.R.S. York, Torilla, near Hatfield has been listed II* recently. We are also very glad that the Minister has accepted the whole of the recommendations of English Heritage for listing postWar education buildings up to 1963. This shows a welcome reversal of governmental attitude towards modern architecture.
The campaigns for saving Sir Denys Lasdun's cluster blocks of flats in Bethnal Green is proceeding and we believe that the local authority will accept DOCOMOMO's recommendation to transfer the flats to a Housing Association, as we have proposed for Welles Coates famous Lawn Road Flats in Hampstead. We will await the results of the negotiations.
The fight to conserve Sir Basil Spence's flats in Glasgow is gaining momentum and DOCOMOMO has had radio and TV coverage. The latter was an especially interesting interview on the ITN News with our member James Dunnett. We are seeking EEC support for these distinguishing buildings.
The proposed alterations to Mendelsohn's Cohen House in Chelsea have been modified by the consultant architect Sir Norman Foster, who is writing about the matter elsewhere in this number.
Finally, our financial position is still perilous and we are urgently seeking sponsorship, any contributions or thoughts about this will be especially welcome.

(Report by UK coordinator Christopher Dean)



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Mendelsohn, a building, an architect, a law

The Schocken Library (1934-'36) in Jerusalem, Israel

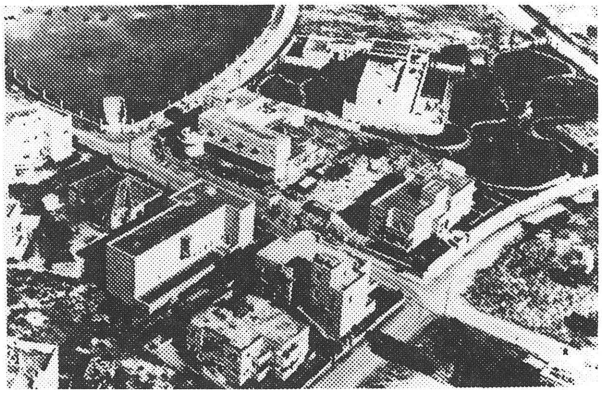
The works of Erich Mendelsohn cover a variety of buildings in a number of countries. In the mid-1930's, as an expatriate from nazi-Germany, he worked outside the European continent and simultaneously designed buildings in Great Britain and Israel, that show remarkable differences in architectural concepts.
Arie Sivan and Ita Heinze-Greenberg shed some light on one of the finest examples of Mendelsohn's architecture in Israel, his Schocken Library of 1934-'36. At the same time they reflect on possibilities to preserve the building, in connection with the new 1989 Conservation Act in Israel.

by Arie Sivan and Ita Heinze-Greenberg

In Spring 1933 Erich Mendelsohn left Hitler's Germany at the pinnacle of a brilliant career: his office in Berlin was one of the largest in Europe at that time with a staff of 40 architects and draftsmen. A year later, in 1934, he came to build in Palestine or Eretz Israel, as it was called by its Jewish inhabitants. His start here was extraordinary successful. After all he came as a 'made man' with an international reputation. And he met again some of his old clients and colleagues from Germany. Among them the most important: Salman Shocken (1877-1959). The big stores that Erich Mendelsohn built for Schocken in Nuremberg (1926,) Stuttgart (1926-28) and Chemnitz (1928-30) were architectural masterpieces of a new formal language. The buildings responded to the dynamic development and functional necessities of modern urban centres. They became a 'must' for every encyclopaedia on modern architecture.

East-West unity
In Palestine Erich Mendelsohn designed his buildings in a strikingly restrained 'unmendelsohnian' manner: solid walls instead of wide window bands, introvert contemplation instead of extrovert expressiveness, cubic quietness instead of dynamic tension and vertical permanence instead of horizontal suspension - his answer to local conditions.
His credo was an east-west synthesis:
'In this historical moment the Jewish people are offered the possibility to return to their old homeland, and to create of East and West that product, wich in the heart of the world will build the bridge to an East-West unity.
In order for destiny to become true, Western knowledge and Eastern purity have to find a, not yet known, common basis'
(Erich Mendelsohn, 1940).

Left: two buildings by Mendelsohn in Jerusalem on an aerial view from the 1940's. The T-shaped volume in the bottom left corner is the Schocken Library. Top right is the house that Mendelsohn designed for Schocken himself. Right: the upper reading room of the library, with original furniture by Mendelsohn.



Schocken Library
The library that Erich Mendelsohn built for Salman Schocken in Jerusalem between 1934-36 is one of the finest examples of his concept - his homage to Jerusalem. Built from sand-coloured Jerusalem stones the library follows the simple cubic character of the vernacular. An outstanding halfround bay-window in glass in the Southern facade impresses as a mendelsohnian signature: the expressionistic hint as a counterpoint to the archaic background.
If the Schocken stores in Germany became well-known examples for the so-called 'International Style', the Schocken library in Jerusalem is of international interest as a critical contribution in the actual discussion on regionalism versus internationalism. Besides this, the building is of eminent national interest as a symbol of an epic time. Built before the existence of the State of Israel it expresses the hope for a state-to-be for the expatriated Jews from Germany: the client Salman Schocken - the architect Erich Mendelsohn. Together they developed a prophetical project: a 'house of books' for the 'people of the book'.

The only complete 'Mendelsohn'
Getting down to the regional level of the building we have to stress its typical Jerusalemic character. Jerusalem is a city almost without physical monuments - probably because it is a spiritual monument in itself. There are, of course, monuments, but they are not evident. It means, they are not exhibited. Neither the Holy Sepulchre, nor the Western Wall, nor the Dome of the Rock are presented by monumental avenues, splendid city squares or impressive vistas. They have to be 'discovered' - a special spiritual quality of the city. Erich Mendelsohn directly referred to this aspect by hiding the building behind a stone fence with a narrow gateway. He confronted the street with an unpretentious facade while he unfolded special mendelsohnian effects at the side facades. Although the building is a public one, it does not 'invite' the public: a non-institutional institution and through this, following a typical characteristic of Jerusalem's oriental spirit. Erich Mendelsohn's elaborated feeling for elegance is fully developed in the interior with the reading room on the second floor as a highlight. All furniture was designed or chosen by Erich Mendelsohn himself in close correspondence with Salman Schocken. Today the library is the only Mendelsohn-designed building that still functions in its original outfit, saying it is the only still existing complete 'Mendelsohn' in the country.
We hope that it became clear, that such a building truly is a monument of historical as well as aesthetical value. In this sense it is a public 'property' even though it is not publicly owned. The Schocken Library is owned today by the 'Jewish Theological Seminary of America, the Jewish Institute for Jewish Research'.

Conservation law
Of course, the question should be raised, why a private building of public interest should be conserved like a museum-piece by the private owner although being in full use. The relatively new 'Appendix to the Planning of Building Law, 1965, relating to conservation plans (1989)' in Israel takes a considerable step towards the conservation of monuments. It requires that each Local Authority will create a public committee that will elaborate a list of buildings for conservation. The Local Authority will than keep control on those buildings, in order that they will be kept according to the purposes of their conservation. The law even enables the Local Authority to expropriate buildings if they are not maintained according to their requirements. Furthermore, the law enables the local government to give compensations in those cases, in wich, as a result of a conservation plan, the owner loses the possibility of fully using his building rights.

Shares and tax-reduction
However, the Schocken Library raises another question: how can the owner be convinced to keep the building in its original state, and which incentives we have for this? In our case we are lucky enough to deal with an owner, that obviously takes the importance of the building into account. Outwardly the library is well kept. The interior saw some minor changes due to certain technical requirements. However, due to age and overuse, signs of initial deterioration can be noted. Costly restoration of Mendelsohn's well-known chairs, lamps and door handles are necessary. To exchange the defective pieces for some modern substitutes and exhibit one of Mendelsohn's original pieces in the Israel Museum's Department of Modern Art is no solution in our eyes. The New Appendix of the Law, dealing with conservation, does not create a clear mechanism to deal with such problems. As the necessary precautions might exceed the owner's actual functional needs, we would suggest that the city takes 'shares' in the building. Possiblilities to support the owner through a system of reduced taxes applied for the interior conservation of this building could be a well balanced solution.

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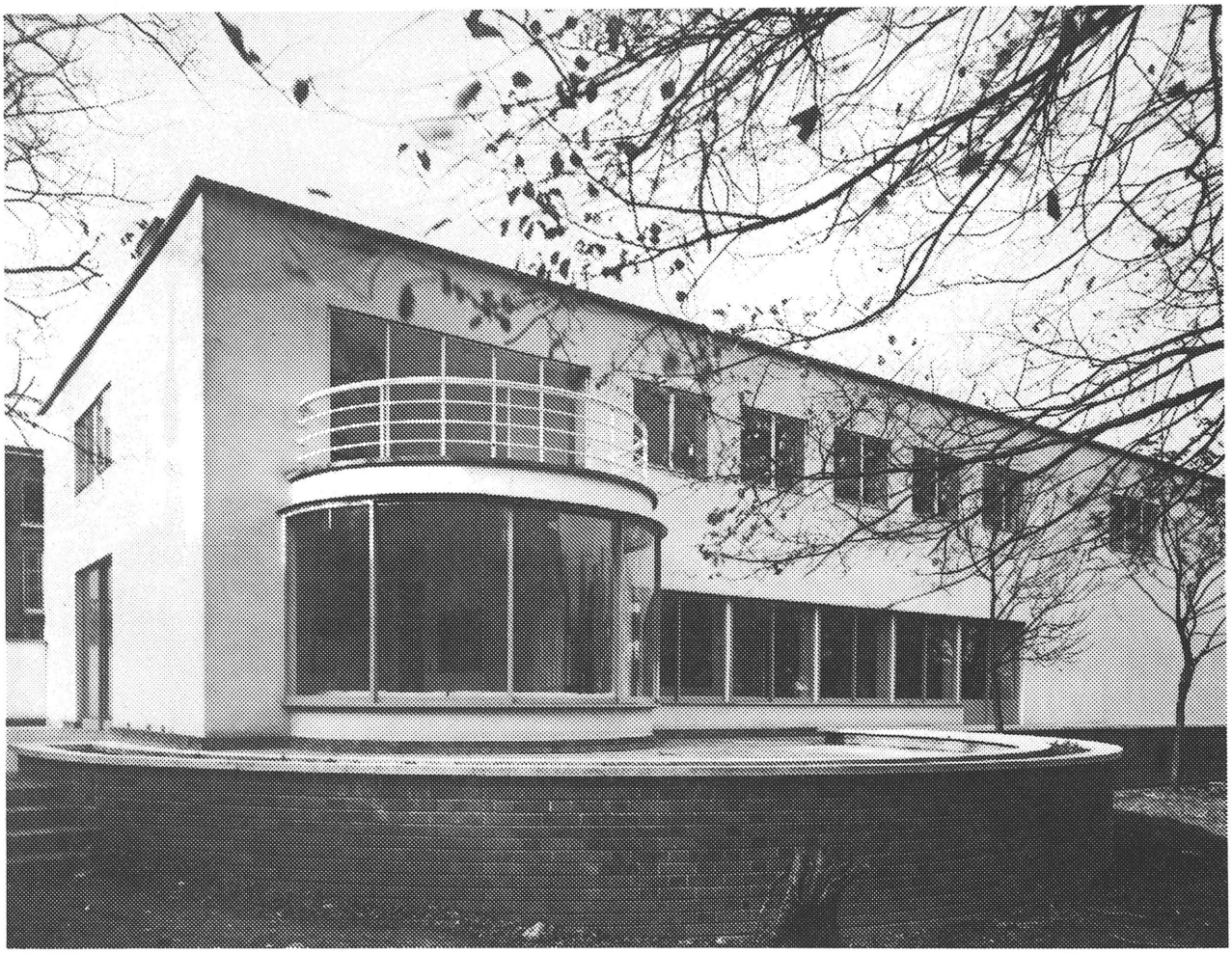
Controversy over refurbishment in London
The Cohen House (Mendelsohn and Chermayeff, 1935)

For Chelsea's Old Church Street, Mendelsohn designed a house for the publisher Cohen in 1935. The house has remained almost unaltered and respectfully maintained to this day. The present owners would like to alter the building and have employed Sir Norman Foster and Partners to do this. Foster, who expressed his sympathy for DOCOMOMO's work at several occasions, proposed an intervention that appeared unacceptable to members of DOCOMOMO-UK. A controversy between two parties of undisputed integrity that clearly illustrates the complexity of restoring Modern Movement buildings. We decided to include both views; see also Foster's contribution opposite p. 40.

by James Dunnett

In 1935 two friends, both publishers, bought adjacent plots of land on Old Church Street, Chelsea, the then artistic quarter of London, and resolved to ask the two leading modern architects from continental Europe who were based transiently in London to design houses for them. One asked Walter Gropius in partnership with Maxwell Fry, the other - Dennis Cohen - asked Eric Mendelsohn (he had dropped the final 'h' from Erich when he moved to London) in partnership with Serge Chermayeff. The two houses, one at right angles to the street, the other parallel, complemented one another well. The Gropius house was substantially altered some years ago (to its detriment), but the Mendelsohn house, apart from an inapproriate timber conservatory added in 1963, has remained to this day unaltered and indeed well and respectfully maintained. The Mendelsohn design bears obvious similarities to his own house on the Ruppenhorn in Berlin of 1931, and is milder than the earlier expressionistic houses of the 1920's, but it retains a powerful horizontal thrust and an effective simplicity, with a dramatic internal staircase. The linear plan is terminated at one end



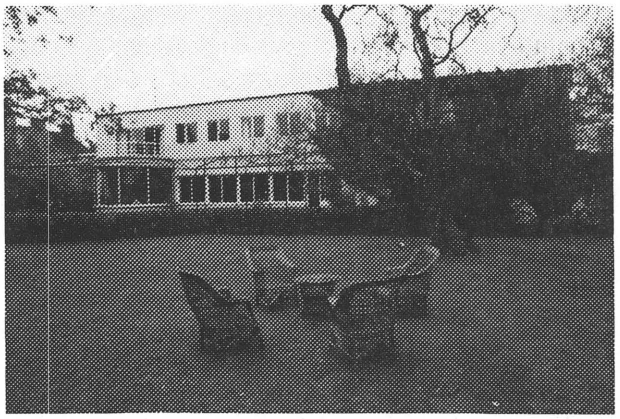
by the living room with its great semi-circular bow window and at the other by a squash court, an original feature requested by the client - whose blank side wall determined the character of the garden elevation, the principal elevation of the house.

Objections against refurbishment

This house is now threatened, however, with alterations that will upset its composition radically. The present owners (only the second in the history of the house) have passed retirement age and wish to convert the squash court into a library (involving the cutting of large windows in the blank side wall), and adding further staff accommodation and a new service entrance; they also wish to rebuild the 1963 conservatory in a larger and more permanent form. The architects they have employed to do this are Sir Norman Foster and Partners.

Neutralised tension

Perhaps as a result of the prestige of this firm, permission was granted for these alterations despite the high level of official protection which the house enjoys and despite the reasoned objections advanced by DOCOMOMO-UK and other conservation bodies. It was pointed out that the new cubical masses of the proposed conservatory and staff wing will conflict with and undermine the original cubical massing, that the windows in the



Left: the original garden elevation on period photo.
Top: garden elevation as it looks today.
Photo: James Dunnett.
Bottom: the original garden elevation (top) compared to Sir Norman Foster's proposal (bottom) of a few months back. Since then, the addition for the servants wing, on the right, has been dropped.
Drawing composition by: the Twentieth Century Society.

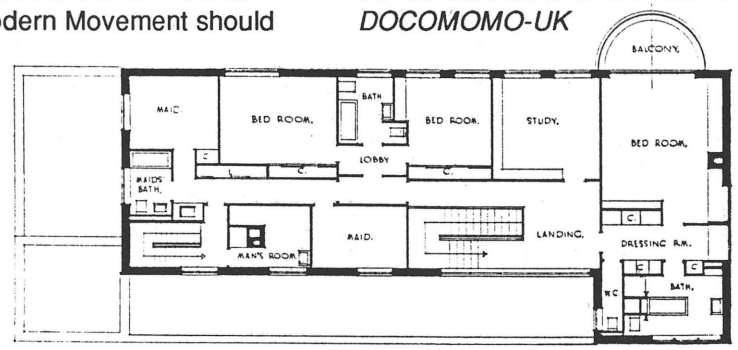
side of the present squash court will destroy the contrasts between wall and window that are the essence of the garden elevation, and that the new service entrance will undermine the simplicity of the street elevation. Leading architects such as Sir Denys Lasdun, critics such as Bruno Zevi (the leading authority on Mendelsohn), Mendelsohn's daughter Esther, and even Serge Chermayeff himself (now in his '90's, living in the USA) have registered their objections to these proposals. In response, Sir Norman Foster and his clients have abandoned their proposed new service entrance on the street frontage, and subsequently also the glazed staff accommodation wing; but the remainder of the proposals stand - most crucially the new windows in the side of the squash court, which will totally neutralise the tension of the rear elevation - and at present are on schedule to be carried out.

Owners to adopt to building

Whilst the Cohen house is not one of the most famous works by Mendelsohn (and the evidence, internal and external, is that it *is* substantially the work of Mendelsohn, despite the recent claim of Chermayeff to have been responsible), it is given much prominence by Zevi in his book on the architect, and it can be seen to form part of a late flowering of this work before his move to Palestine and America, where his output is thought by some to be of lesser intensity. Certainly it is one of the most important preWar Modern Movement houses in Britain. The changes proposed are of a kind that an understanding of the Modern Movement should preclude. The verdict must be that whilst the Hi-Tech architecture of today (of which Sir Norman Foster is so distinguished an exponent) has its roots in the Modern Movement, and has its own achievements, it has travelled a long way on its own distinct path. Excellent though one would expect Foster's additions in detail to be (in fact the shallow ridge-and-valley roof proposed for the new conservatory arouses some misgivings), it is clear that the resulting composition will not be of sufficient value to replace that of Mendelsohn which it will destroy. The Mendelsohn house in its original form is perfectly viable as a house today. It is of sufficient value for one to ask the owners to adapt to it rather than the other way round - or, in the last resort, to find another house that suits their present needs. As Bruno Zevi has said: 'In Italy, as you can imagine, we have many cases of historical buildings that have to be used without alterations. If you want to live in an architectural masterpiece (as 64 Chelsea Old Church Street certainly is), you have to respect it. In your own interest. You are free to build a new house. But if you choose to live in the Farnese Palace or in Falling Water, you are asked not to ruin it'.

DOCOMOMO-UK is collaborating with the Twentieth Century Society in the organisation of a symposium to be held to discuss the issues. Letters of support for our cause to: DOCOMOMO-UK, 26 Store St., London WC1E 7BT.

James Dunnett is an architect and a member of DOCOMOMO-UK



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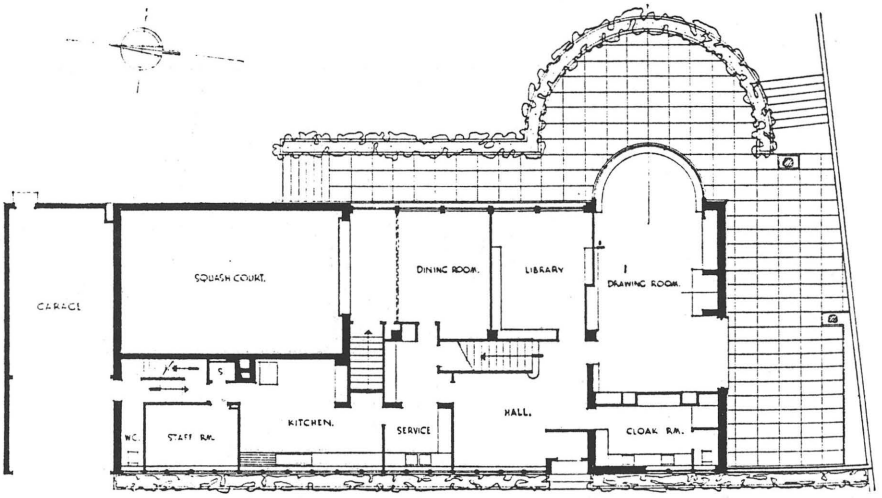
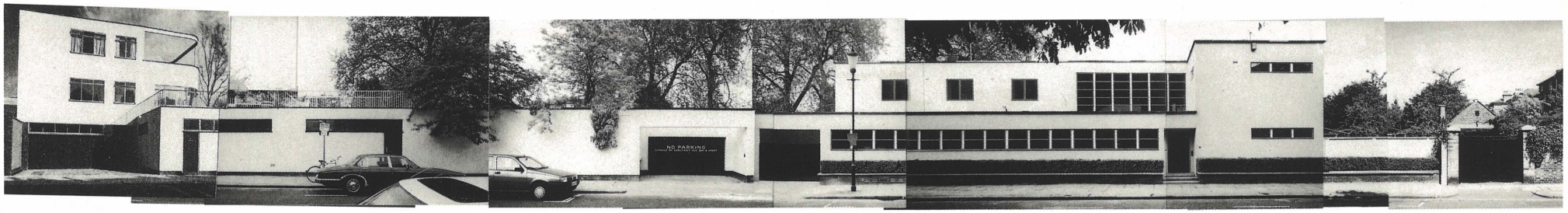


Top: the original plans of the Cohen House, as designed by Mendelsohn and Chermayeff in 1935.
Groundfloor left, the squash court, to be converted into a library, which necessitates additional windows in the garden elevation.
On the right, a conservatory has been proposed by Sir Norman Foster and Partners.
First floor left, the servant rooms that are to be extended.



The Chelsea Arts Club, the venue for the recent Twentieth Century Society and Docomomo UK symposium is located opposite two adjoining houses that were built in 1936; one to the design of Walter Gropius with Maxwell Fry and the other by Erich Mendelsohn and Serge Chermayeff. At this time they would have looked something like this.

In the 1970's the architects Crosby Fletcher and Forbes had made some changes to the Gropius and Fry house (on the left) and a conservatory had been added to the Cohen House of Mendelsohn and Chermayeff. The proportions of the glazing had been substantially altered by repainting and the original white facades had been changed to a light brown.

In the last year, the present owners of the Cohen House who had bought it with the conservatory, were faced with a deteriorating building fabric, escalating maintenance problems and the need to replace an increasingly dangerous conservatory. They were also suffering from lack of space, not helped by the unusable void of a squash court overlooked by the dining room. Over the last year there have been extensive exchanges with the building authorities, planning bodies and conservation groups - for example English Heritage and the Twentieth Century Society. In an attempt to satisfy the many interests and often conflicting points of view, changes were made both to the plans and to the original requirements of the owners, who were gracious hosts to the many visitors and critics during that period.

The design strategy has been first and foremost to restore the fabric of the house, as far as possible, to its original appearance both inside and out. The new conservatory is set back from the street face and articulated as a separate element. The glazing and external facades are to be restored to their original colours.

Sir Norman Foster and Partners June 1993

Restoration reaches 'Nirwâna'

Facelift for residential highrise (Duiker, Wiebenga, 1927)

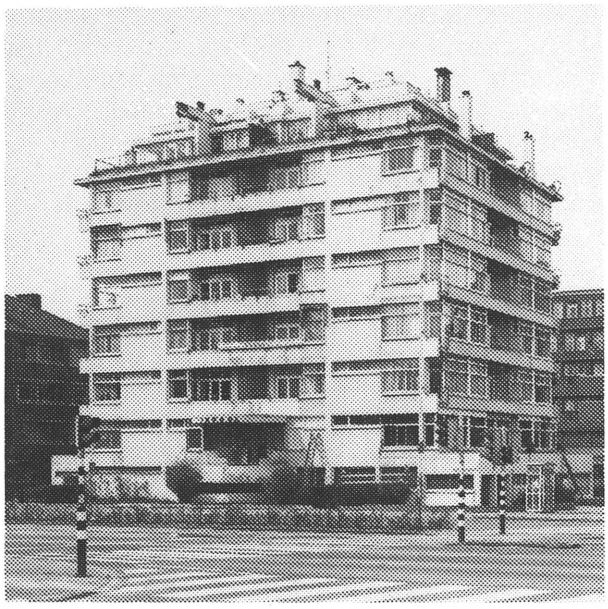
Nirwâna flats is inspired by the modern, American-style apartmentbuilding. By providing a number of service systems and comunal facilities, the inhabitants were expected to do without servants and still enjoy more leisure. When refurbishment was prepared by the present 27 tenants/owners of the flats, preparatory surveys consumed so much of the budget that no architect could be contracted to solve the serious problems that arose with respect to thermal and acoustic insulation of the facades of this listed building. Then, the municipal Department for Conservation decided to intervene...

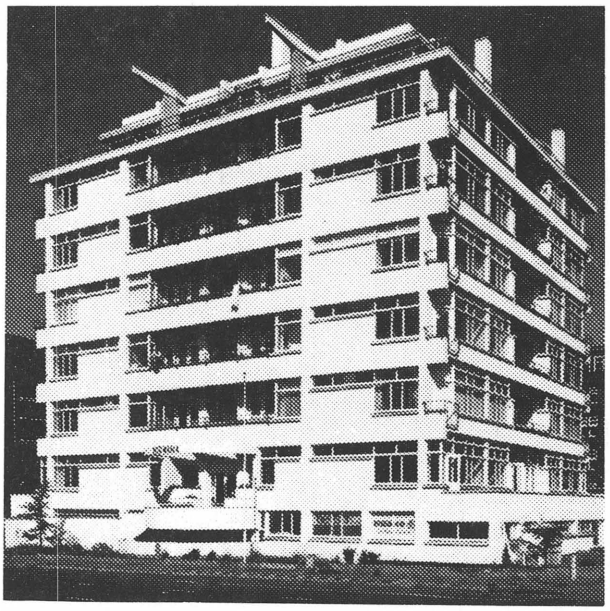
by Rainer Bullhorst

Not only is Nirwâna the first concrete residential tower in the Netherlands, it also is a manifesto of the new approach to building and living, both architectonically and socially, especially under the influence of developments in the USA and Germany. In the early 1920's, Jan Gerko Wiebenga made a study tour across the United States to acquaint himself with the methods in use there for highrise buildings and the advanced technical standards of (rented) houses. His study did not remain limited to theory alone. To finance his stay, he worked on similar projects with several architectural firms, usually for a short period of time. What appealed to him most was a much higher return on investment, both technically and financially. Deeply impressed, he returned and sketched his experiences to Jan Duiker, a friend of his since their student days. Together they decided to integrate the know-how acquired in the USA into Dutch needs and customs. In the booklet on highrise buildings written by Duiker in 1930, the entire problem is thoroughly discussed, from the economic use of land to construction to comfort and so on.

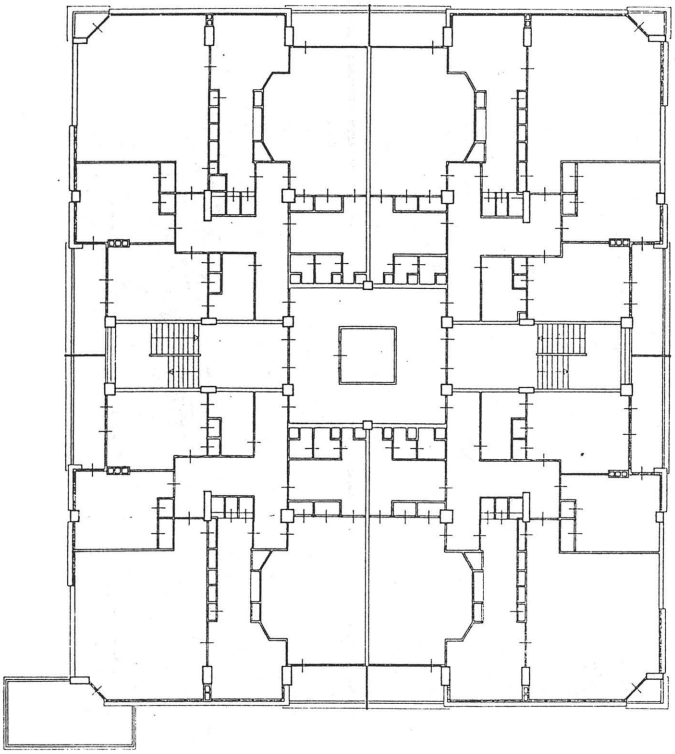
Concessions

At the time, the Nirwâna building had just been completed, not as it had been intended in town and country planning, but in terms of construction and organisation. The road up to this point had been sheer agony. The correspondence between Duiker and Wiebenga illustrates this clearly. Started as early as 1925, the first design comprised ten identical towers, each over 50 metres in height, in a subdivision similar to the one of Le Corbusier's *Ville Radieuse*. Due to its height, however, this plan did not meet with the municipality's approval, as Duiker had anticipated. A year later, a design was completed for five 25-metre-high blocks of flats in a chequerboard





Nirwâna flats as it looked around 20 years ago (left) and as it stands today after an extensive restoration of the outer skin (right).
Photos: Dienst Ruimtelijke en Economische Ontwikkeling and Bullhorst Architects, Den Haag.



Top: the new windows with concealed ventilation inlets.
Middle: the original windows.
Bottom: original typical plan.
Drawing: Stichting Analyse van Gebouwen, Delft.

layout. Three locations were investigated. In the end, only one building was erected, in a considerably economised version. A protruding balcony on one of the corners and the rudiments of a connecting bridge testify to the architects' optimism that the remaining blocks would eventually be built as well.
And more concessions had to be made. The dream of an American-style organisation with many shared facilities was only partly realised. Little remained of the transparent setup of the concrete structure and the fixed partitions between flats. The original setup was considerably corrupted by catering to tenants' wishes regarding the layout.

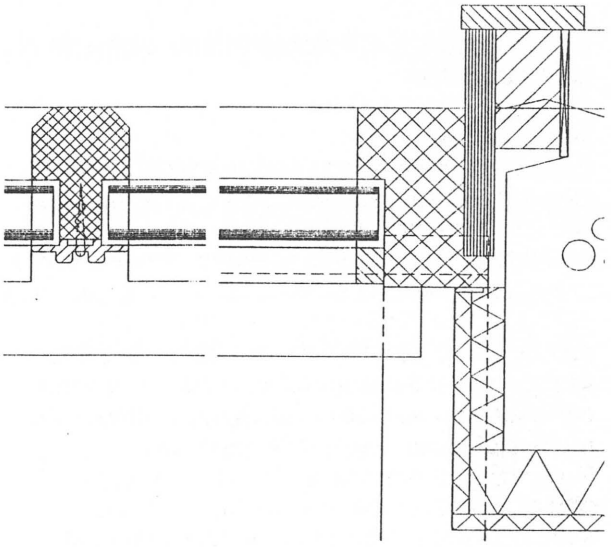
Original splendour

The Nirwâna building never enjoyed wide public appreciation. Even a contemporary promotional leaflet from the developer already indicated this by observing '...the appearance of the building may not be to everyone's taste'. In 1985, when the Dutch government listed it as a monument, a large national newspaper published the story under the contemptuous heading 'Concrete Lump Protected'. This masterpiece by architects Jan Duiker and Jan Gerko Wiebenga was never awarded a prize for beauty. On account of its badly soiled appearance, it was largely ignored by the average citizen. The low appreciation level was also apparent from the purchase prices, which shortly before restoration had fallen to those of a hovel. In spite of a superficial cleaning and painting job a decade ago, the Nirwâna building had deteriorated considerably. The thin layer of cosmetics applied then could only hide its poor state of maintenance for a short while and in some places merely accelerated corrosion and decay. Notwithstanding favourable reviews in the press, which reacted with relief to the return to brilliant white, the building proved to have been anything but restored to its original splendour. To start with, the Nirwâna building had never been white and certainly not brilliant. Actually, the indeterminate colour which was applied at the time, if anything resembled that of a white table cloth which had accidentally ended up in the laundry with a red sock. Secondly, the once finely textured layer of plaster was now smoothly filled, causing the surface to shine unpleasantly under a certain angle of light.

No architect

Aware of the results of this merely optical improvement, the owners in 1984 decided to have a thorough, technically sound restoration carried out. Due to the building's listing as a national monument and the subsidies thus made available, this became financially viable. Two energy crises had meanwhile created a different attitude towards heating costs and residential climate, and the crossroads at which the Nirwâna building is situated had by now grown to motorway

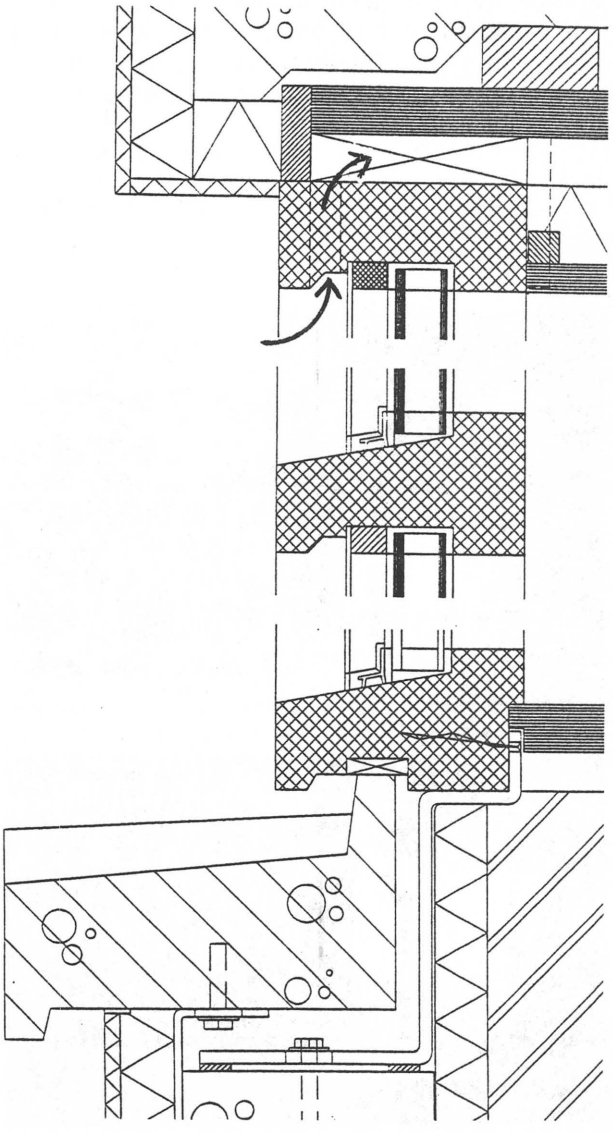
dimensions. Apart from the lowest possible investments, the understandable and legitimate demands of the tenants mainly focused on noise and heat insulation. A survey by a firm of experts demonstrated that the measures to be adopted would imply an unacceptable visual corruption of the by now 70-year-old concept.
This gave rise to the question to what degree concessions towards living conditions were permitted. Architecturally speaking, this question was simple to answer but immediately led to a conflict with the tenants. Although many of them had been able to buy their flats for little money, they now had to pay through the nose in spite of subsidies. None of the 27 tenants proved to be willing to accept the drawbacks of a restoration of the building to its original state. There was no obvious solution, all the more so since shortly before commencement of the work no acceptable details had been developed and no unanimous agreement had been reached on the materials, textures, windows layout and colours. The structural and physical research had cost so much that no funds remained to contract an architect.



Top: horizontal section of the redesigned windows. Left the fixed intermediate post with a deviating metal strip on the outside.
Bottom: vertical section with ventilation inlet through an acoustically insulated box.
Drawings: Bullhorst Architects.

Original design respected

This was when the municipal Department for Conservation intervened and appointed me architectural supervisor for the restoration. There was little time for philosophical and theoretical considerations. This may well have been Nirwâna's saving. While the craftsmen had already commenced repairing decayed concrete, chipping off the old layer of plaster and restoring masonry, the required drawings were produced in perfect cooperation between the contractor and the Department. Of course the specific technical and physical aspects were taken into account, but in particular I respected the original design without ever wanting to leave a personal touch.
The mood within the team was always optimistic. The new layout of the windows and the details of the window frames were determined in a relatively short period of time. The greatest problem proved to be the integration of acoustically insulated ventilation facilities without reducing the glass area. As may be seen from the detailed drawing, this was achieved by milling a groove in the water drip of the lintel, allowing air to enter a baffle mounted behind the frame. The slim profiles of the original side-hinged steel windows also led to a conflict with the placement of the 3 cm thick, double gas-filled glazing. This was solved by providing a fixed wooden intermediate post with a moulded metal strip on the outside which, although deviating from the original in appearance, fits well in the hierarchy of the facade with its various frame weights. The latter was restored, of course. On account of their tendency to warp, current guarantee standards no longer permit threshold dimensions of 67 by 160 millimetres in one piece,



for which reason all horizontal frame elements had to be laminated.

Too colourful?
Concrete wall coverings and sills were modified. Originally, these protruded less than is the case now, causing the plaster work to be corroded by seepage and permanent pollution. I endeavoured to keep the Nirwâna building clean for an extended period of time in spite of current levels of air pollution. The widened sills are better suited for keeping water away from the facade. The same consideration applies to the choice of colour, the method of plastering and its grain size.
Fortunately, there was ample time for research and experiments. Several colour and texture samples were produced more than half a year before the first facade had to be plastered on a four-centimetre-thick insulation layer. As to the colour, experiments were carried out with several pigment additives and with saturation. In addition to the sample which approached the ideal image most closely when clean, several were prepared which were progressively more saturated. All these samples were exposed to the weather, wind and exhaust fumes for a few months. It became clear that the colour of the most saturated, rather yellow sample had been filtered out by a layer of filth to such an extent that this one was eventually given preference. When the scaffolding was removed from the first facade, even colleagues accused me of too colourful a restoration. Once the new skin of the Nirwâna building had been exposed to the weather for a few months, however, their criticism was silenced.

The balconies after restoration show only slight alterations. Photo: Bullhorst Architects.

Careful redesign
Since completion of the building in 1929, regulations have changed drastically. Precondition for the restoration was that the flats meet current building regulations. The height of the parapets, for example, did not comply with these. Fortunately, the municipality did not require them to be increased, but accepted a structure of steel profiles mounted on the inside of the balconies, thus making it impossible to climb onto the guardings. The steel fences themselves were restored to their original state, although the wire netting was replaced by stainless steel mesh, not in a diamond pattern but orthogonally.
Here, several alterations as compared to the old situation should be pointed out. Due to the insulation package, the volume increased by eight centimetres. Since the window-reveals, too, had to be insulated on the inside without enlarging the opening itself, the horizontal panes in particular have become somewhat flatter than they used to be. Partly due to thermal requirements, the partitions of the corner balconies have become thicker. The construction team considered leaving out the insulation here in favour of the original appearance. Contrary to the preconditions, however, this would result in thermal leaks.
The corrections of the appearance encountered at the start of the activities as a result of earlier alterations and renovations, include the restoration to a transparent state of the awning above the main entrance and the fanlights of the horizontal windows which for practical reasons had been boarded up by many tenants since the panes could not be cleaned from the outside. This has now been made possible by installing a window-cleaners' ladder.

Acting promptly
As compared to other young monuments, which in some cases have been waiting for proper renovation for dozens of years, such as Duiker's 'Zonnestraal' in Hilversum, here the process was relatively easy in spite of some practical obstacles. After all, its function need not be altered, the tenants themselves acted as principal, and both municipal and national authorities were aware that this vital testimony to Dutch architecture could be preserved only by acting promptly. Thanks to a subsidy covering over half of this 3.3-million-guilder project, it was possible to complete the activities by mid-1992.

Rainer Bullhorst was supervising architect for the restoration of Nirwâna. Today, he works as a private architect in Den Haag, the Netherlands.

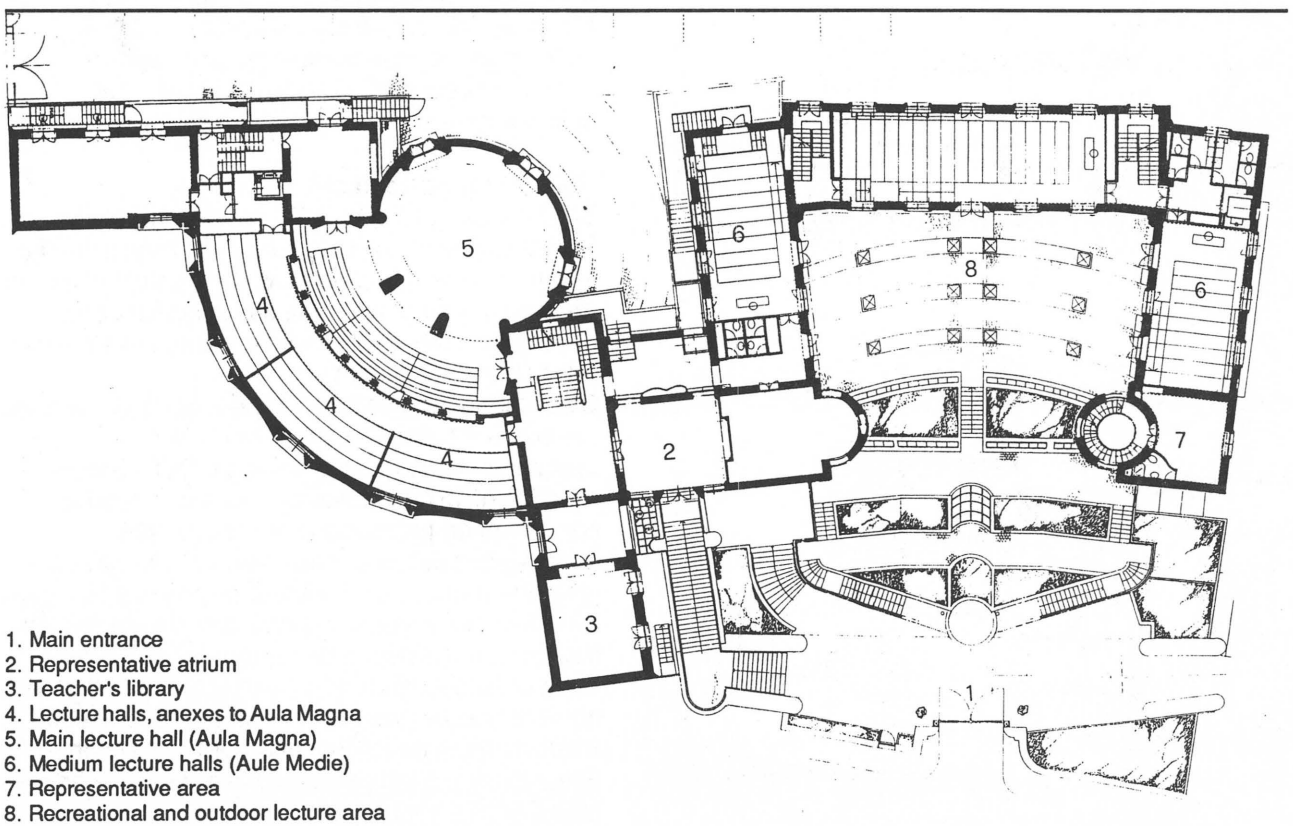
Cool-headed interventions on firm grounds

Redevelopment of Aschieri's Institute for the Blind in Rome

In 1930, architect Pietro Aschieri designed the Institute for the Blinds of War for Rome, that was built one year later. It was established as a social security in preWar Italy, to provide housing and workshops for the invalid.
The building stood unsensitively extended with workshops and storagerooms since the War, until a recent restoration eliminated these additions. At the same time, the complex has been cleverly enlarged by providing underground premises and today serves as a seat of Luiss University. Studio Passarelli Architects explain on the effects of revitalizing this remarkable Roman building.

by Studio Passarelli

The new seat of the LUISS University in Via Parenzo in Rome is accomodated at the former Institute for the Blinds of War (*Istituto del Ciechi di Guerra*), designed by the architect Pietro Aschieri in 1930.
This complex of buildings is characterised by a rather articulated plan of shallow workshop wings constructed with load-bearing perimetral walls containing many windows on both sides. Specific areas in the building such as the atrium, the chapel and staircases are emphasized by large glazed parts in the elevations. In the various rooms the workshops for knitwear and leather manufacturing were located, as well as accommodations for the blinds and the nuns, and offices and services.
Over the years, the building's image was disturbed by serious changes and additions of rooms and facilities, particularly at the ground and basement levels. With the redevelopment, all these added elements have been eliminated and substituted by underground and semi-underground structures of the same surface area but respecting the original profile. Serious complications in programming the redevelopment arose from the need to adapt the building to the regulations for the handicapped (lifts, ramps, sanitary facilities) and to safety regulations (stairs, emergency exits, compartmentations).

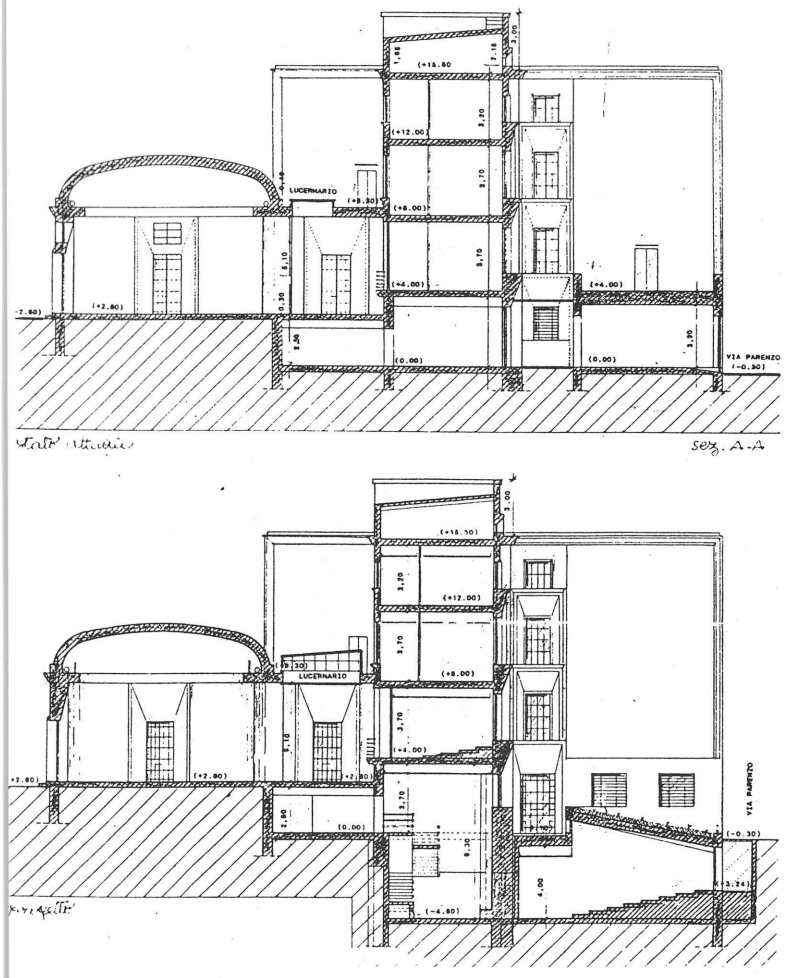


1. Main entrance
2. Representative atrium
3. Teacher's library
4. Lecture halls, anexes to Aula Magna
5. Main lecture hall (Aula Magna)
6. Medium lecture halls (Aule Medie)
7. Representative area
8. Recreational and outdoor lecture area

Structural intervention

The intervention which was most engaging for both the designers and the building contractor for the restoration of the building in Via Parenzo, has undoubtedly been the one regarding its foundation structures.
In fact, the design included the realisation of a completely new underground level under and within the outline of the original plan, to be used for lecture halls, service systems and parking. The required height for this new basement level necessitated underpinning of the actual structures as well as reinforcement of already existing foundations. The extant building, typically a masonry structure, has been directly constructed on foundations, either superficial or deep, formed by wellholes laid in tuff blocks. The depth of these are just enough to reach the formations of tuff-stone in the undersoil of the site.
These depths, assessed in advance by an extensive drilling survey carried out before the works started, appeared to vary from part to part of the building complex from about 5 to 0,5 meters. As a matter of fact, the geognostic operations executed simultaneously to the coring of the foundations, have confirmed the presence of good or even perfect physico-mechanical features of the undersoil, even to the depths corresponding to the springing lines of the new underground volumes. These conditions have allowed the realisation of the various required interventions projected for the building in completely safe conditions for both the workers and the masonry structures, with the absolute guarantee that, especially during excavations, there could not be even the slightest setting.

Top: section of the building before the restoration; the additions from 1940 are on the right.
Bottom: the same section after restoration with the new underground levels.
Drawings: Studio Passarelli.



Underpinning foundations

An additional construction has been projected under the extant structure, consisting of piles of a small diametre, in order to transfer the loads from the existing foundations to the new basement level. The transfer of the forces to this piling has been provided by doubled girders in reinforced concrete, integrally connected to the piles. The girders support the masonry elevations, connected by transversal beams on both sides.
In addition, this set of beams formed a strong horizontal frame that proved a very efficient construction for the new floors at ground level.
After excavation of even limited areas of ground up to the necessary depths, a reinforced concrete bed has been constructed that is vertically linked by reinforced concrete walls to the overhanging beams supporting the projecting platforms that cover the wellholes.
The static configuration that resulted from the works carried out, today presents the existing building standing firm, through an enclosed reinforced concrete structure over the total covered area of the building complex.

Shift in interior climate

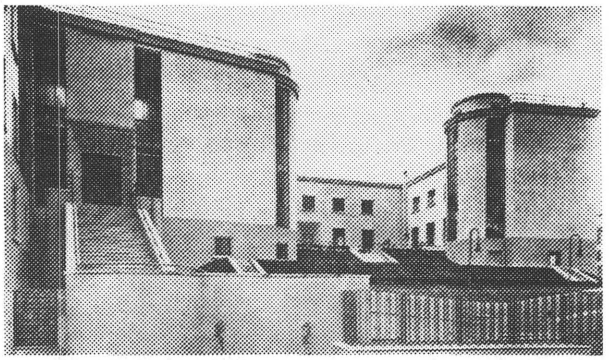
The new use of the building as the seat of the LUISS University, with lecture halls instead of the former workshops, as well as the characteristics of the new rooms obtained at the basement and underground levels, brought us to select a central airconditioning system.
Corresponding with this decision, the outer skin of the building had to be checked for its appropriateness to allow such a shift in interior climatological circumstances, in order to avoid condensation problems in the future. The load-bearing external walls appeared to have a good thermal isolation without any thermal bridges. However, the window casings and the big window frames that needed to be replaced, have been completely substituted by new frames still in steel but with double glass and weatherstrips. These windows have been obtained from Crittall's in Great Britain, a job presented in a separate article (see Crittall's contribution).

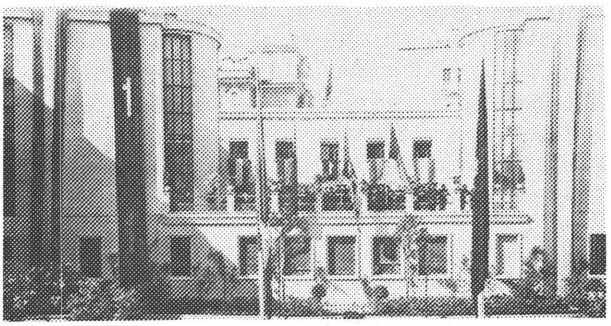
Airconditioning

A mixed airconditioning system has been adopted providing primary air through fancoil-units of the 'four-blowpipe-type' for the offices and similar rooms, while a full airconditioning system is available for the lecture halls and for areas where similar crowds are to be expected.
Originally, the building was centrally heated by a coal-fired boiler in the basement, that later was changed into an oil-fired unit. Today, the heating plant is equipped with two gas-fired boilers of 600 Kcal/h. each, located on the roof in a closed box. The cooling units - two, for a total output of 800.000 Fr./h. - are similarly placed on the roof but in the open. For these, room has been found by removing the roof of a former attic of which the floor had previously been reinforced. In the same space, two of the total of seven airconditioning units have been installed. The remaining units have been placed in three big rooms in the basement where also the main equipment of the system, such as pumps, heat exchangers, accumulation tanks etcetera, are to be found.
At the same level the water station is located with provisions for the external supply of drinking water. Here pumps are installed to rise water to the 15 m3 tap-water tank and the reservoir for the fire-extinguishing system, containing 45 m3. Also a boiler for the production of hot water for sanitary facilities is placed.
The main distribution of hot and cold water to the fancoil-units is horizontally arranged on the roof through a group of pipeworks fixed to the pavement of the terraces from the cooling unit onwards. These pipes descend in vertical shafts, typically placed at the far ends of the various workshop wings. Next, they are distributed horizontally in the false ceilings at each level. Similarly, the air treated in the airconditioning units is distributed over the various floors through channels in the vertical shafts. Corresponding with the exits and compartments of each floor, the up- and downcast channels are provided with a fire-lock.

Spatial and architectural consequences

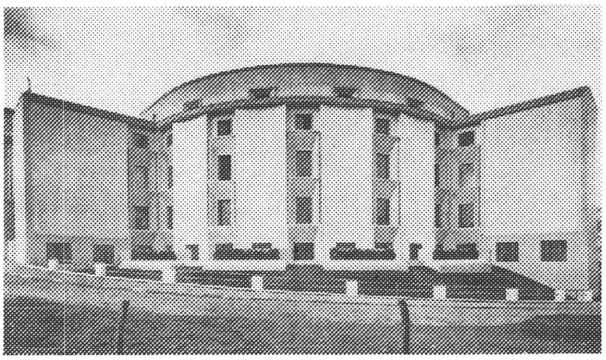
The solution for the service systems to be spread over the entire building, partly on the roof and partly in the basement, has allowed for a good functioning of the system without disturbing the existing architectural and spatial qualities.
The space consumed by the various service systems in the restored building is substantial and totals around 6.000 m3. It includes 1.000 m3 of technical equipment in the basement, 250 m3 of machinery on the roof, seven vertical shafts of about 80 x 400 cm each running through the entire height of the volumes and, finally, a decrease in ceiling heights of about 50 cm on nearly every floor. We have been able to avoid placing any airconditioning unit or other machinery on the roof

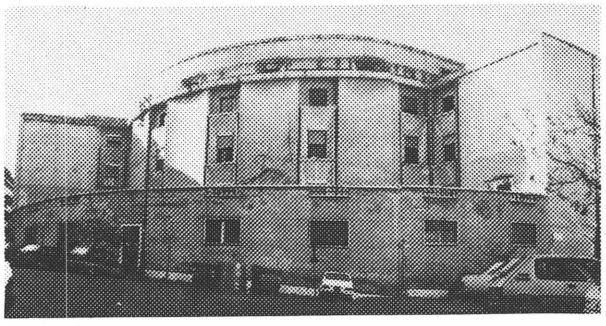




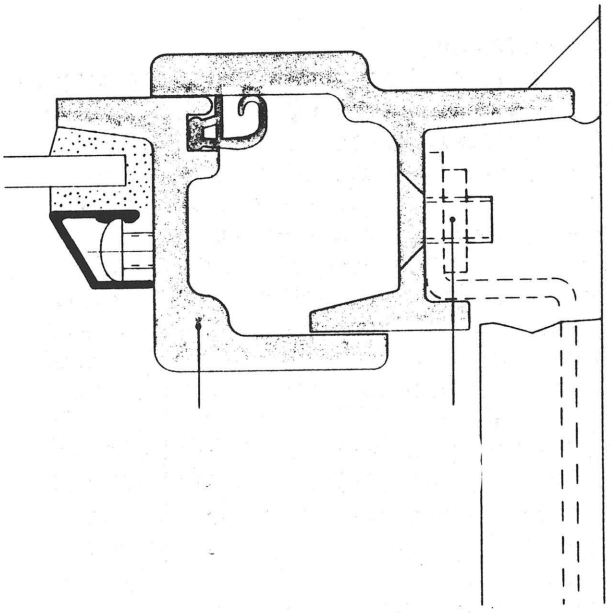
Top: the workshop wings as executed in 1931, with the greenery and steps leading to the square court, and in 1940, when storage rooms had been built under it.

Top: the curved volume in 1931 and as it looked in 1991, with the additional workshops constructed in 1940. These have been eliminated with the recent restoration by Studio Passarelli Architects.





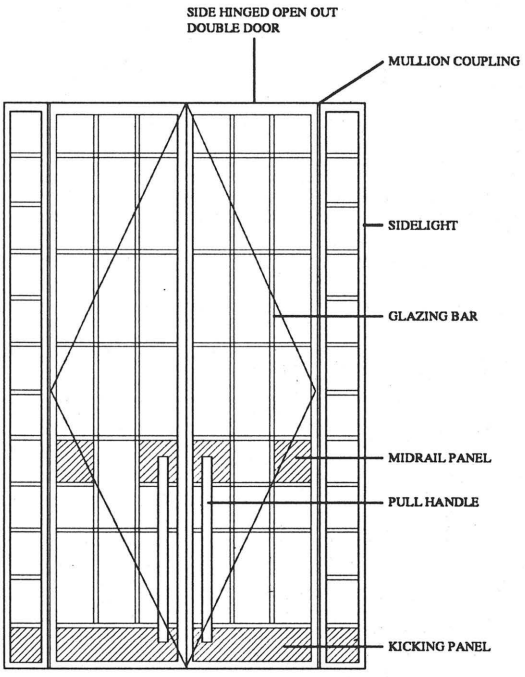
visible from street level. The cooling and airconditioning units placed in the now uncovered former attic, remain invisible through two tall perimetral walls. The distribution pipes on the roof run horizontally along the terraces' level, not to be seen from below.
Also, great attention is given to the effects of the interventions for the interior spatial qualities. The large vertical shafts are located near the solid end walls of each workshop wing, virtually forming 'double' walls and therefore hardly perceivable in the interior. The horizontal distribution pipeworks and channels are generally concealed by false ceilings in solid gypsum panels, which neither modify the space of the individual rooms, nor interfere with the window frames. In some cases, where such a solution has not been possible, the false ceilings are made evident by an independent shape with curved edges.

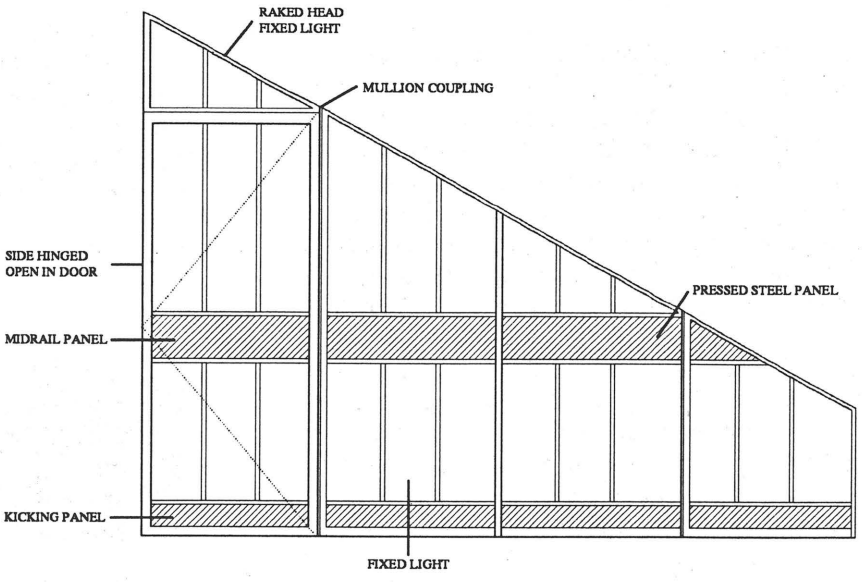


Conclusions

Final considerations on the adopted service systems can be made as follows:
- A full airconditioning system requires a large quantity of space, both for air distribution and the airconditioning units themselves.
- It appears necessary to analyze beforehand, from case to case, the appropriateness of a building to install such a system in view of the future use, function and physical characteristics of the premises after restoration.
- In the case of the LUISS University, the final solution adopted can be considered acceptable, particularly in view of the choice of a 'spread' airconditioning system, the suitability of the building's specifications for the selected systems and the fact that the nature of the interventions allowed to respect the original spatial and architectural qualities of the building.

Studio Passarelli Architects was in charge of the restoration of the building.





Top: typical double doors for the LUISS University in Rome are about 3 m high. The elegant doors are side hinged and open out.
Pull handles are in polished aluminium square tubes.
Right: a raked head panelled composite window to infill a trapeziod space underneath the outside stairways, that have been faithfully reconstructed during restoration.
It comprises a door and fixed light units in Crittall's Corporate range (far top).
Drawings: Crittall Windows Limited.

Steelframed windows technically improved
Replicas with 'modern' features for new LUISS University

Since their involvement with the first DOCOMOMO International Conference in 1990, Crittall's have enjoyed increasing interest and involvement with heritage building refurbishment projects throughout Europe.
LUISS University in Rome presents many of the technical challenges typically offered by replica window projects. An authentic and sensitive solution was required, and Piero Gandolfi of Studio Passarelli Architects specified slender Crittall steel windows to replace the original hand-crafted fenestration. David Blake briefly reviews the specification for LUISS University, that serve well to illustrate the sheer diversity of replica window and door details which can be manufactured today in steel.

by David Blake

Studio Passarelli were concerned about some recent examples of unsympathetic refurbishment of Mussolini-era buildings with large-framed windows made of aluminium or PVC-U, that had dramatically changed their external appearance. The LUISS University case serves well to illustrate the sheer diversity of replica window and door details which can be manufactured today in steel. The project features 42 elegant double doors with various design arrangements of glazing bars, midrail panelling and sidelights. These external doors mainly give access to garden and patio areas, and are typically about 3 metres high, with sections internally glazed to suit beaded 8 mm single glass or 26 mm thick double plate pressed steel panels that provide a flush internal appearance. Fittings include 38 mm square tubular polished aluminium pull handles on external surfaces, and locking panic latches internally to provide general fire exit safety.

Many stiles
Steel windows can be made with hinges that allow the windows to open to the outside ('open out') or the inside ('open in') of the building. There is also a choice of having the glass retained by aluminium glazing beads fitted to the inside ('glaze in') or outside ('glaze out') surfaces of the window frames. Although the 'glaze out' method is relatively secure, the 'glaze in' method is generally regarded as the best design arrangement for security. In addition to hinged window types, steel windows can be manufactured in styles which allow opening frames to project outwards or pivot either horizontally or vertically for easy cleaning. At LUISS University over 200 composite windows have been supplied, featuring fixed lights, side hinged and bottom hinged windows in a wide diversity of combinations. These windows are sub-divided with glazing bars to provide multi-pane styles, and are designed to accept either 8 mm single glass or 14 mm double glazing units. The side hinged windows are fitted with 'concealed' security bolts that engage into the head and sill bars of the frames, and cannot be seen when the windows are closed. The elements are provided with polished brass handles which allow the window to either be totally closed or slightly open for secure night ventilation. The bottom hinged windows are fitted with polished brass 'spring catches' at the head bars of the frames, which feature circular ring pulls for simple operation by hand, or by pole if the window is installed in a high location out of arm's reach.

Variety of shapes
Steel is a material that allows windows to be manufactured in many shapes in addition to the usual rectangular designs. Below the external steps leading to the LUISS University building are special 'raked head' panelled composites of doors and fixed lights, to infill the trapezoid spaces beneath the stairway (see illustration). Steel windows can also be specially curved on plan or in elevation.
The LUISS University building facades also feature prominent composite window elements at stairwell details, the largest of which contains 7 units arranged vertically spanning 9 metres in height. One of these elements is splayed at 298° to mimic a curved effect, with window units coupled to 40 mm diameter steel tubes. Rolled hollow section steel tubes are also generally used for the fixing details, to integrate the doors and windows into rebated stone openings.

New windows match originals
A brief summary of the evolution of modern steel windows helps to clarify the current replica refurbishment options for steel fenestration. In the first two decades of the 20th Century, Crittall developed two suites of steel window sections to accommodate commercial or residential applications, and modern equivalents of these two

window ranges are available today.
In 1909, the 'Medium Universal' range designed by Crittall replaced all other previous steel window designs. The Medium Universal range proved immensly popular and was sold in vast quantities worldwide. In the 1960's, the range of sections were slightly adapted and rationalised to form a new W20 suite of window sections. Under the current Crittall brand name of 'Corporate', this range of sections closely replicates the Medium Universal profiles used previously. Windows from the Corporate range have been specified for the new fenestration at LUISS University.
In 1919 Crittall developed the slimline 'Standard' metal window specifically for the residential market. Styles of Standard steel windows included small-pane, large-pane and horizontal-pane types. Today these windows can be exactly replicated by using the Crittall 'Homelight' range of residential steel windows, which are identical to the Standard metal windows of former decades.

Slender sightlines and modern features
These carefully engineered hot-rolled window sections are produced at a specialist light steel mill, which was established in Britain by Crittall back in the 1930's to meet the fast-growing demand for steel windows across the world.
Sections are welded together at mitre-cut corners to form window and door frames, and intermediate glazing bars are hot tenon riveted, all in accordance with the British Standard for steel window and door manufacture.
Using the slimline strength of hot-rolled steel to maximum advantage, the modern Corporate and Homelight ranges retain the slender sightlines of the original Crittall steel window profiles of the 1920's and 30's, yet provide modern features of weatherstripping and double glazing. In addition, the welded frames are now hot-dip galvanized for total corrosion protection and can be polyester powder coated in the factory in a wide range of colours.

Double glazing and weatherstripping
Early steel windows are invariably single glazed with putty. Today's steel windows can be bead glazed with 14 mm double glass units for thermal and acoustic insulation.
New double glazed units would typically have a U-value of 2,8 W/m2K or less, compared with the original single glass rating of 5,7 W/m2K. Further heat savings and improved comfort levels are provided by neoprene weatherstripping which is now fitted on opening windows.
Steel window frames have a typical U-value range of 3,5-3,9 W/m2K, which compares fairly well with aluminium frames, which typically have U-values ranging from 5,2-5,8 W/m2K (non-thermal break) to 2,9-3,9 W/m2K (with thermal break).
It has been calculated that an average of 20-30% of a building's total heat loss is caused by windows, and between 5-15% of that loss is caused by window frames.
It should be considered, however, that the slender sightlines of steel window frames can provide a higher proportion of high-performance glass per window opening, compared with the bulkier rival materials of aluminium, wood or PVC-U.
Neoprene weatherstripping, positively secured onto vent frame sections, enhances weather performance and reduces air infiltration to a minimum.

Hot-dip galvanizing
The earlier steel windows were protected from corrosion by application of coats of red oxide paint. A zinc spray technique was introduced during the 1920's and offered some improvement, but it was not really successful in preventing corrosion in more aggressive atmospheres and had a limited life-span.
Early experiments with hot-dip galvanizing had faltered because of the uneven nature of the finish, but with improvements hot-dip galvanizing became mandatory on all steel window frames produced in the UK after 1946. Since that date there has not been one recorded case of rust in galvanized steel windows supplied by Crittall.
Steel window frames are cleaned, pre-treated and

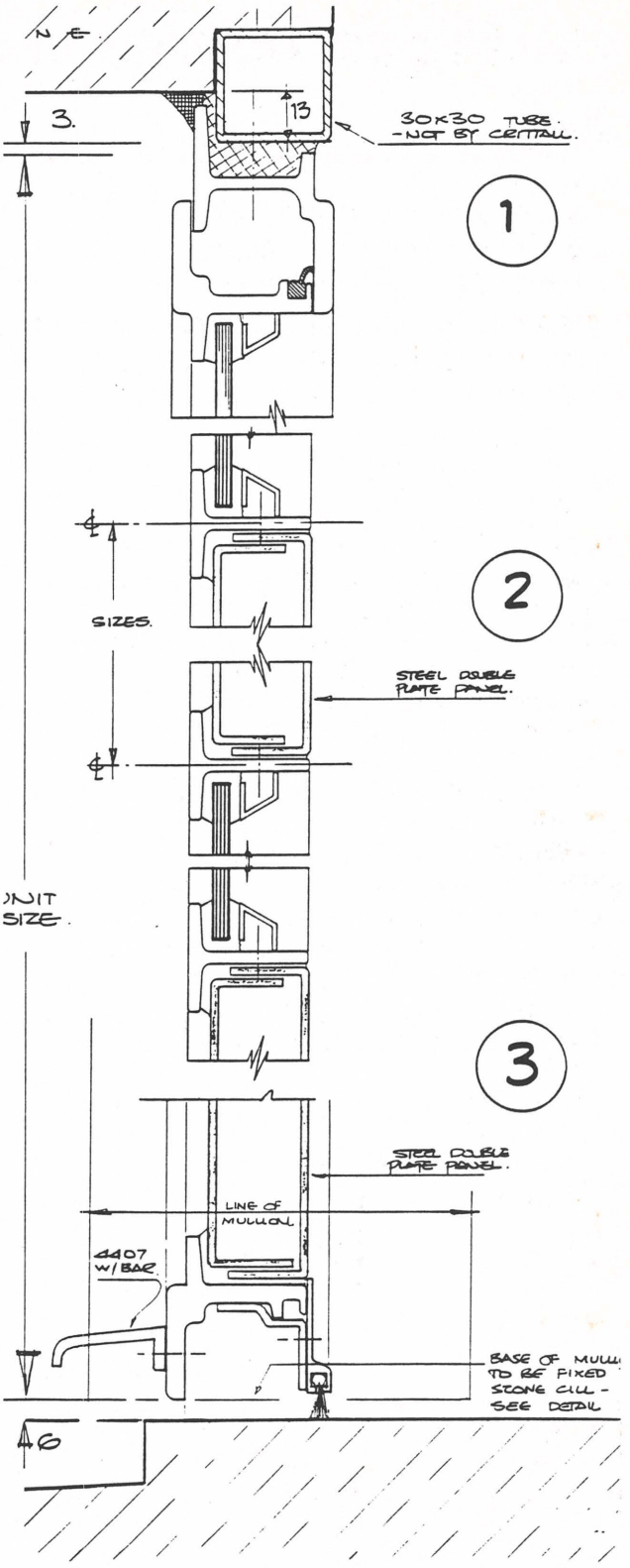
Crittall have been active with replica refurbishment projects in Europe during recent years, working with local or national Heritage organisations in Germany, Belgium and Holland, as well as Italy. In addition to projects such as the Torengarage in The Hague and Haarlem Town Hall, both in The Netherlands, a notable installation was the refurbishment of the Arts Academy in The Hague, where replacement steel windows were installed and glazed by our Dutch agents Bouwkonsult b.v.
In the UK we have been busy working with English Heritage to refurbish the Art Deco landmark Hoover Building at Perivale in West London, and the world-famous Boots Building D10 at Beeston near Nottingham. Designed by Sir Owen E. Williams in the late 1920's, the Boots building features a revolutionary steel curtainwall and the sheer size of the glass facades has helped to confirm its reputation as the most important industrial building of the Modern Movement. Both the Hoover and Boots buildings were originally Crittall installations featuring steel windows where the original units had provided over 50 years of service, prior to replacement with modern steel windows.

etched, and then completely emersed in a bath of molten zinc.
This process fuses the two materials together, so that on the outside there is a layer of pure zinc which changes to zinc alloy, and penetrates well into the surface of the steel substrate and positively protects the frame. The British Standard for hot-dip galvanizing specifies a minimum zinc coating weight of 460 gr/m2.

Polyester powder coating
This process is widely regarded as the optimum finishing technique for architectural windows manufactured from aluminium or steel, designed to be installed under UK or European climatic conditions.
Prior to the introduction of this technology steel windows were always site painted. Today, the vast majority of our steel windows are delivered with a polyester powder coated factory finish.
After galvanizing, the window frames are chemically cleaned and chromated in a 6-stage pre-treatment process, providing an ideal surface to which the polyester powder will adhere tenaciously. The finishing material is an epoxy free polyester powder, electrostatically sprayed on to the clean, dry substrate at ambient temperature and then stoved at a temperature of 200°C for 20 minutes. The powder flows and fuses to create a hard-wearing and attractive decorative finish, thoroughly baked on. Under typical climatic conditions, the polyester powder factory finish will not require redecoration for 15-20 years.

'State-of-the-art' at LUISS
At LUISS University, a Wine Red (RAL 3005) finish has been specified for striking and colourful architectural impact. The delivery requirements of the contractors, Alosa S.A., were met in full and although the fixing and glazing operations were to be undertaken by local labour, Crittall provided an experienced Fixing Supervisor to oversee these operations during the 7-week installation programme. The recent completion of the project has excited a lot of interest and compliments from architects and building professionals in Rome.
At Crittall, we do not sub-contract finishing processes, which would attract an added risk of damage to products from increased handling and transportation. The vital hot-dip galvanizing and polyester powder coating procedures for steel products are undertaken in an 'in-house' finishing plant, which ensures consistent product quality.
The new steel windows and doors at LUISS University, therefore, faithfully replicate the old fenestration of a bygone age, but are manufactured to the highest standards of quality with technology that is 'state-of-the-art' in 1993.

David Blake is managing director of Crittall Windows Limited, Braintree Essex, Great Britain.



Typical door section details from LUISS University, Rome, at scale 1 : 2. The Corporate range sections by Crittal's are almost exact replica's of the 1930's originals but provide for modern features such as neoprene weatherstripping. Drawing: Crittal Windows Limited.

Curing carbonated concrete

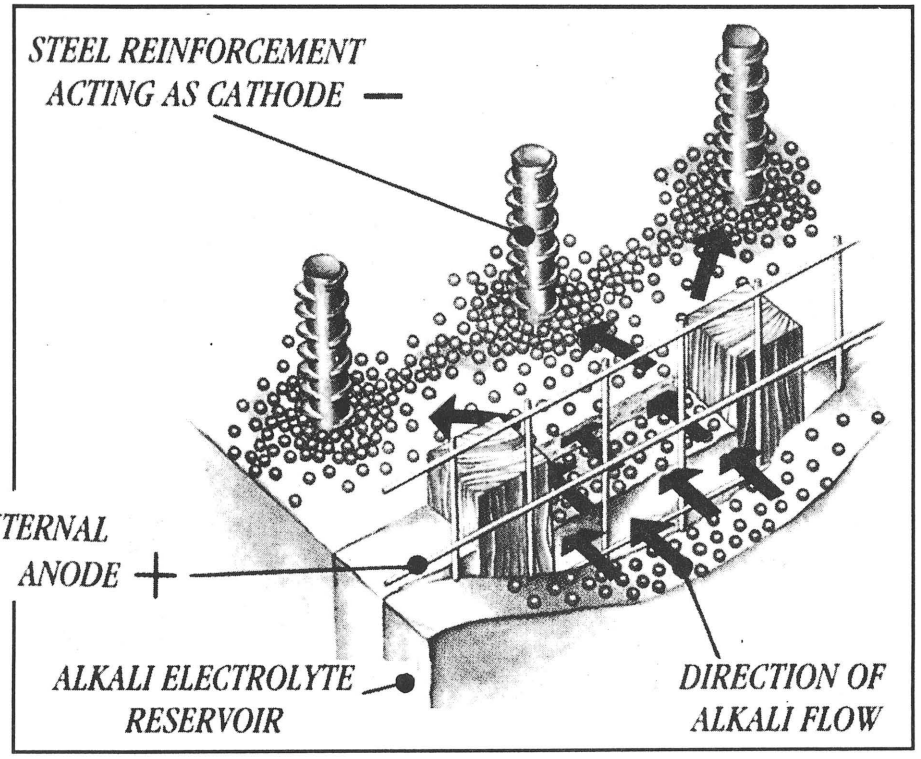
Although the use of concrete is certainly not limited to Modern Movement architecture only, reinforced concrete frames were so frequently applied by MoMo designers that they became almost emblematic for their architecture. But our predecessors often experimented with concrete mixtures, various admixtures, rebar-patterns and dimensions of structural elements. As a result of this, modern architecture suffers from defects not found in traditional buildings. They demand new repair and restoration techniques that conventional building conservation theory does not offer. Although aimed at the British market, the methods mentioned in this article are being applied by repair specialists in many countries.

by Graham Ridout

There are not many materials that manage to escape the net of the British Standards Institution, especially those that have been around for over a century and a half. But concrete repair materials have evaded being included in a BS (a British Standard) and there is not even an EN (a European Standard) on the horizon. 'Basically, you have to rely on what the manufacturer tells you' says Ray Cox of the British Research Establishment. Cox is the BRE's representative on a major European Community-funded Brite Euram research programme looking at concrete repair techniques. Other organisations working at finding a way through the vast maze of products available in Britain are the Concrete Repair Association and the Federation of Resin Formulators and Applicators. They are preparing jointly a manual giving guidance on the choice of materials. Materials fall into three main categories: hand-applied, spray or flowable repairs. By their very nature, repairing concrete with these materials either involves breaking out defective areas and replacing them with a new material or applying a fresh layer over damaged or corroded parts. But there are other ways of treating concrete suffering from carbonation or chloride attack that do not require breaking off or overcoating the original base concrete. One is the well tried method of cathodic protection, but there are two other relatively new techniques: re-alkalisation and de-salination.

Carbonation

Fresh concrete has a high alkalinity with a pH-value typically of 12 to 13. Gradually the alkali content reduces as carbonation sets in. Carbonation is caused by a rain or moisture mixing with the airborne gases carbon-dioxide and



Concrete treatment: diagram showing re-alkalisation process. Cables are run from an external anode applied in cellulose fibre containing a sodium-carbonate solution on the outside (right) and an internal cathode, the rebar steel in the existing concrete (left), to a low voltage direct current transformer.
Diagram: Maker's UK.

hydrogen-sulphide to create dilute carbonic and sulphuric acids. This acid-attack neutralises the alkalines and carbonation eventually occurs when the pH-value goes below 9. With time, the depth of concrete affected by carbonation will extend to the rebar steel. When this happens, the steel has lost its protection and starts to corrode. What follows is the familiar sight of rust staining on the surface of the concrete. Eventually, the surface spalls away as the reinforcement, which can expand by more than five times its volume when corroding, bursts the concrete.

Re-alkalisation

Re-alkalisation arrests the carbonation of concrete and restores its alkalinity to nearly that of new concrete. By doing so, it stops corrosion of the reinforcement steel which would otherwise signal the end of the life of many a concrete structure.
The process was developed in Norway about eight years ago and introduced to the UK in early 1991 by the British concrete repair specialist Makers. Since then the company has completed three contracts and restored about 10 000 m2 of carbonated concrete. It has recently started work on its largest ever re-alkalisation contract on a housing estate in Acton, West-London.
Re-alkalising the carbonated concrete is a comparatively straightforward operation. Usually the first task is to sandblast the concrete to remove any existing coating and to repair any damaged or unsound concrete with a polymer modified mortar. After this preparatory work, 25 mm x 25 mm timber battens at 1 m centres are fixed to the concrete with plastic plugs. A 50 mm grid mild steel mesh is fixed to the battens - this becomes the positive electrode. A cellulose fibre containing a sodium carbonate solution is then sprayed on to the concrete and the mesh to a thickness of about 70 mm - resembling a papier-maché poultice. Meanwhile, small areas of the existing concrete are cut away to expose the reinforcement which then becomes the negative electrode - the cathode. Cables are run from the anode and the cathode to a low voltage direct current transformer and the current is turned on. Initially a voltage of around 30v is applied, but this drops to about 9v after four or five days, signalling the end of the process.
The concrete is re-alkalised by a combination of two reactions: electro-osmosis and electrolysis, the sodium-carbonate solution is drawn from the poultice into the pores of the concrete. When the solution reaches the reinforcement, the electrical circuit is complete and no further electro-osmosis takes place. But electrolysis continues and raises the alkalinity around the rebar. This raises the pH-value to the concrete immediately around the reinforcement to as high as 13 on occasions. The built-up of alkalines passifies any corrosion of the steelwork as well as protecting it. Areas of up to 400 m2 can be treated at a time.
The effectiveness of the process is checked in two days. The first is by monitoring the electrical resistance. This remains at a steady low figure when re-alkalisation is complete. The second check involves the use of a phenolphthalein solution which changes colour according to the degree of alkalinity of the concrete. After re-alkalisation, the concrete is given a high pressure water-jet clean and left to dry. The usual finishing act is to apply a cementitious skim coat and then brush or spray on an elastomeric finish coating.

De-salination

The de-salination process involves almost the same methodology as re-alkalisation but is used to treat concrete which has been afflicted by chloride attach. Structures likely to benefit from the treatment are those affected by de-icing salts such as road bridges and car parks, buildings near the coast which have been attacked by sea spray, and concretes where chloride admixtures such as calcium chloride are used.
The de-salination technique was invented in Norway and shares many similarities with re-alkalisation, including the mesh on timber battens and the cellulose fibre poultice. But because the chloride ions are negatively charged, they are attracted to the positive anode formed by the external mesh. So, unlike re-alkalisation where a sodium carbonate solution is sucked in, chloride ions are forced out with de-salination. The process is lengthier: it usually takes between six to ten weeks to de-salinate concrete. This is because it is difficult to drive out the chlorides locked into the cement matrix within the concrete. One way around this is to switch the current on and off regularly. Mike Darby explains: 'The process goes through a resting period. So by switching the current on and off, it reactivates the chloride ions to move'.

Cathodic protection

De-salination's rival technique is cathodic protection which is sanctioned by the British Department of Transport for prolonging the life of road bridges. It is currently being used on some motorway viaducts. Cathodic protection involves passing a low voltage current through the reinforcement in the concrete. The process does nothing to alter the concrete but prevents the reinforcement bars corroding and thereby causing the concrete to spall. Although the actual costs of the electricity is only pennies, the need for continual maintenance and monitoring is not cheap.

Graham Redout is editor of Refurbishment. *Article previously published in* Refurbishment *11 December 1992. Reprint by kind permission of the author and the publisher.*

Seaside concrete and steel repaired
De La Warr Pavilion (Mendelsohn and Chermayeff, 1935)

The De La Warr Pavilion at Bexhill-on-Sea is an archetypal interWar seaside pavilion, a modern palace of the people, where they can bask in fresh air and sunshine, whether inside the concrete and glass building or on its four levels of sun terraces.
Innovative techniques of welded steel and reinforced concrete helped create the slender lines of the building in 1935. Six decades later, new techniques are being devised to deal with the defects.

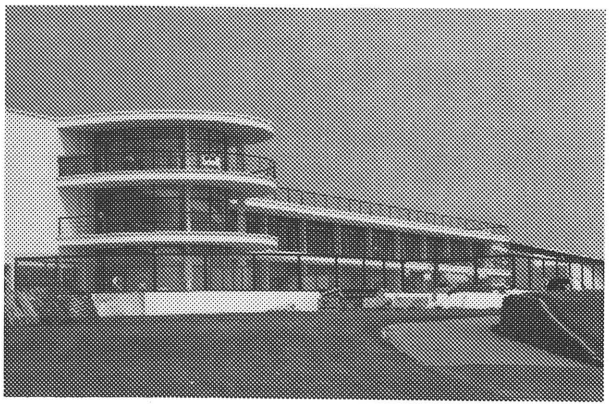
*compiled by Wessel de Jonge**

The De La Warr Pavilion is indeed *the* modern seaside pavilion. It was built in 1935 by Erich Mendelsohn and the structural engineer Felix Samuely, émigrés from Germany and Hungary, in association with Serge Chermayeff.
When completed it was recognised as one of the foremost examples of international modernism in Britain, combining a rationalist approach with Mendelsohn's own unique brand of expressionism.

Gentle decay
The building still thrives in its original role of entertaining Bexhill residents and is still owned and maintained by the district council whose socialist mayor, the ninth Earl De La Warr, developed the building in the late 1920's through a competition.
Nevertheless, cracks were appearing in the concrete walls, the structural steelwork started to rust and inadequate services left the interiors cold and draughty in Winter and baking in Summer.
Repairs and modifications have been carried out over the years but, by the late 1980's, the building stood in a state of gentle decay.
Peter Evendon, a local building surveyer, founded the Pavilion Trust in 1989 to campaign for the proper conservation of the building. With the help of small grants the trust commissioned the architectural practice Troughton McAslan to draw up a preliminary report of the building. McAslan devised a long-term strategy of maintaining the pavilion's existing use as a community centre while expanding to something more ambitious, such as a conference centre, which might draw in more acclaim and therefore more revenue. This would help to pay for the essential repairs and restoration, which were estimated at £6 milion.

Typical technical conundrums
The *Stage One Strategy* report of the architect has since been reinforced by a *Conditional Survey and Uses* study and together this research will provide a basis for a phased rejuvenation of the building.
Concurrent with the development of the restoration strategy, the architect was commissioned to restore the South balconies and terraces and upgrade the external fabric of the building. This work, begun in August 1992 was completed in May

Left: the De La Warr Pavilion at Bexhill-on-Sea after extensive restorations of the exterior by Troughton McAslan architects.
Right: the facade facing the sea. The rounded columns have been repaired and new steel balustradings have been mounted.
Photos: Troughton McAslan architects.



1993 and brought to the forefront some of the technical conundrums typical of the restoration of modernist architecture. F.J. Samuely and Partners, the structural engineering consultancy established by the original engineer, is acting as independent advisor of the architect.

Rusted steel

The pavilion was constructed with limited pallet of materials and the maintenance of their slender sections is critical to the visual quality of the building. Mendelsohn wanted the structure to look slender and weightless, so Felix Samuely divised a steelframe encased in reinforced concrete. To keep the steel joints as compact as possible, the frame was welded on site, which was a novel technique in Britain at the time. The steel columns to the balconies were originally encased in a very thin coat of concrete and finished with faience tiles. 'Amazingly, our condition survey revealed very few defects, in spite of the corrosive effects of the continual sea spray' says Tom Schollar of Samuely (see column on *Carbonation*), 'but the salt spray has led to surface crazing of the covering render.' 'The main defects occur in the external columns supporting the projecting balconies, where the covering tiles have been cracking. Water had penetrated to the steel cores, which have started to rust.'

Restrained restoration

Hugh Broughton, Troughton McAslan's job architect, picks up the story. 'Our guiding principle in detailing the repairs has been to create the same appearance as the original but at the same time to incorporate technical improvements that would avoid the defects of the original. In repairing the external columns, we wanted to reinstate them to the same overall thickness and with an identical finish of faience tiles.'

An elaborate repair system had been devised. It starts with stripping the tiles and concrete from the steel core of each column. Rust is removed by wet sand-blasting and an epoxy rust-inhibiting primer is applied. To provide fire-proofing, a hole is drilled at the foot of the box-sectioned steel core, which is pumped full of a proprietary cement render. An existing cast-iron rainwater pipe, which was incorporated into the original column, is renewed in plastic. Stainless steel bars are then welded to the front face of the steel core to enclose the rainwater pipe and stainless steel reinforcing mesh attached to them. The cavity within the mesh and around the rainwater pipe is then cast in concrete. After that, cement render is trowelled on to encase the entire column and to provide bedding for the tiles. 'We have specified a special cement render with waterproofing properties made by Sika' says Broughton, 'but it is used to only half the thickness normally specified.'

The final stage in the reinstatement of the external

High humidity can reduce carbonation risk

by Tom Schollar

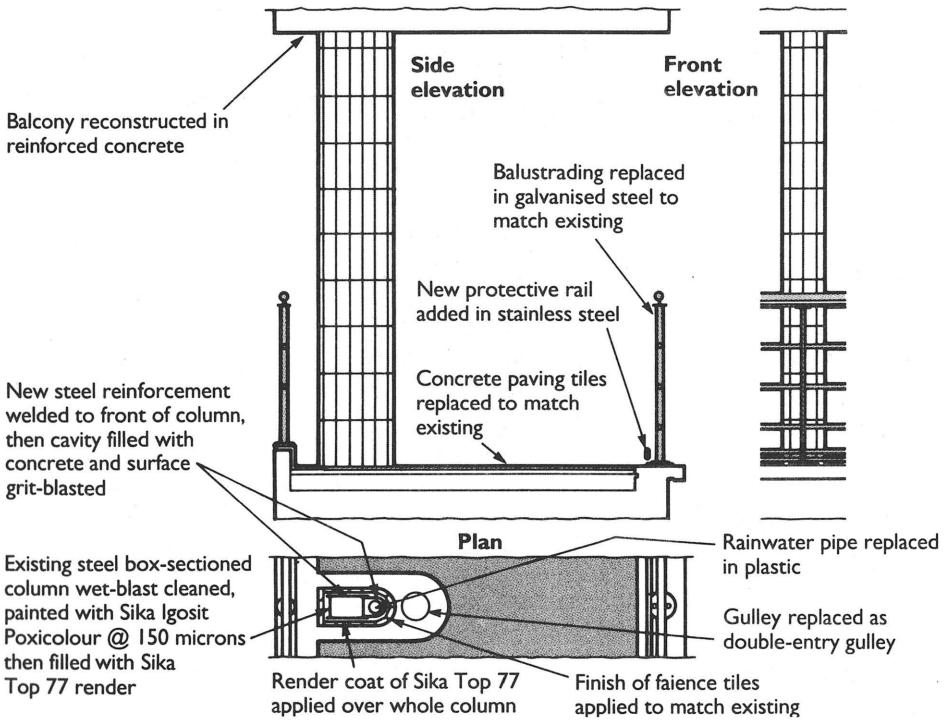
The phenomena of carbonation of concrete and chloride penetration are by now fairly familiar to those involved in maintaining reinforced concrete structures. It seems to be less well known that in some circumstances the mechanism that can start chloride attack can also reduce the likelihood of carbonation. Carbonation occurs most readily when the relative humidity of the air is in the range of 50 to 75% relative humidity. Below 50% attack is less likely, but in addition above 75% the pores in the concrete tend to become blocked by water which prevents appreciable carbonation.* In the UK the relative humidity is often above 70%. For example, the average relative humidity at London Heathrow is around 90% in the early morning for all months of the year, falling to 67% in the afternoon, with the June afternoon average still 56%. At Heathrow the humidity exceeds 80% for about 60% of the time. On the South coast of England, at Dungeness, the corresponding figures are 89%, 79% and 76%, and 80% humidity is exceeded for about 75 or 80% of the time.

We were recently involved in an investigation into the causes of cracking in exposed concrete in a large building on the south coast of England built about 5 years ago. We found rather high levels of chloride concentration, which had clearly been deposited by the salt sea winds - the sea was only 100 metres away from the development. The depth of carbonation was measured at 24 locations, and at 17 (mostly columns) the carbonation depths were between 1 and 4mm only (most were actually 1mm). At the other 7 locations, on overhanging soffits and sheltered walls and columns, the depth of the carbonation was up to 14mm. Of course it is not clear whether this was related only to the degree of exposure.

This investigation showed one other interesting result, which was that chloride penetration was surprisingly low on a wall directly facing the Southwest sea winds - it seems that the rain washes away the sea salts, a phenomenon that has been reported by bridge engineers in the USA.

Tom Schollar is a partner in the consulting Structural Engineers F.J.Samuely and Partners.

* See 'Repair of concrete damaged by reinforcement corrosion', Concrete Society Technical Report N° 26, published by The Concrete Society, 12-15 Darmouth Street, London, SW1H 9BL, United Kingdom.



Top: external column repairs at the De La Warr Pavilion as illustrated in *Refurbishment* December 11, 1992.
Bottom: the renewed facade of the cylindrical staircase, which is so characteristic of the pavilion, after repairs.
Photo: Troughton McAslan architects.

columns will be to apply new tiles that match the originals. 'It has taken a long time to match the original finish of the tiles' says the architect. 'They have a smooth texture and a special buff colour, and in addition, the tiles on the front face of the column are curved.' The new tiles are specially produced by the manufacturer who also produced the original ones.
The current works also include replacing of the badly rusted tubular steel balustrading to the balconies in new corrosion-resistant galvanised steel. In addition, a new skirting rail has been added to restrain glasses from being kicked over the balcony edge.

Encouraging

Now, as the scaffolding is struck, the sleek gleaming form of the redecorated pavilion is emerging. Yet, the rejuvenation of the building's interior will be a longer process requiring outside funding to match the commitment shown by the local authority and English Heritage. The work has now been apportioned into prioritised and manageable packages and these will now become the subject of fundraising drives in the near future. However, the restored image is a vital part of the campaign to attract interest and funds to revitalise the pavilion over the next decade. 'Though we haven't got very far yet, the building now looks smart and encouraging', enthuses Evendon. 'The pavilion is loved again and it is going to come right in the end.'

**Text based on notes from Hugh Broughton, Troughton McAslan's job architect for the works, May 1993 and* Refurbishment *11 December 1992.*

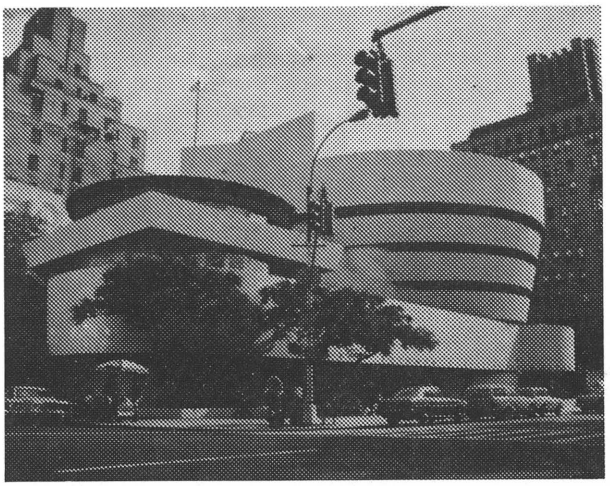
Concrete structure of Guggenheim Museum in New York recently improved

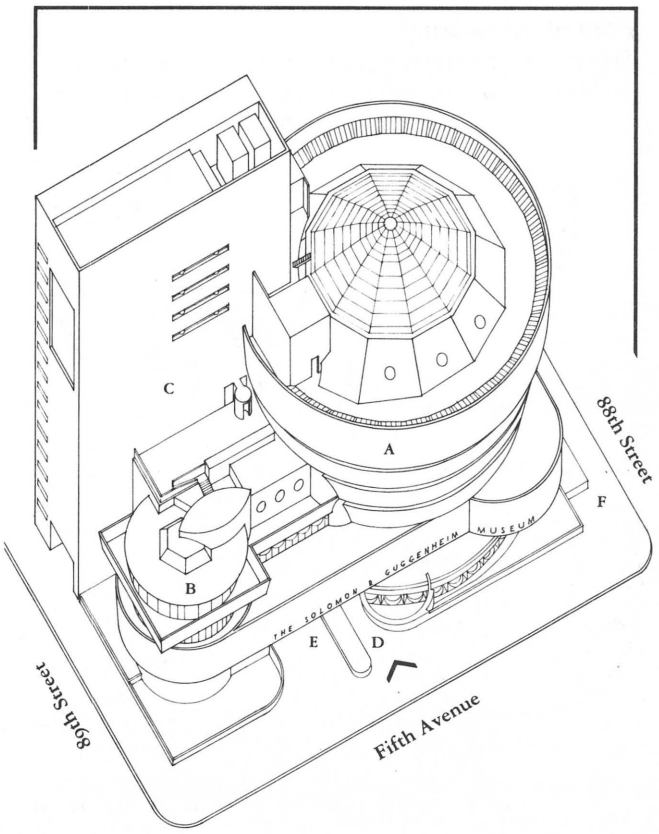
The outstanding architectural quality of the Solomon R. Guggenheim Museum lies in the first place in the organic linkage between all of its parts: the collection of paintings, the museum function, the spatial configuration, the plasticity of the shape, the monolithic character of the structure. Any disturbance of this continuity becomes inevitably a problem for the entire structure at various levels. Under these conditions, a restoration must respect the global unity as much as possible, and carefully preserve the original functions of each element. Any modification will affect not only the treated part, but will have an influence on the aspect and performance of the entire structure. The author explains on a restoration project to solve a series of interconnected problems in the outer skin of the museum.

by Jef Malliet

Frank Lloyd Wright's architecture is fundamentally organic: not a set of elements that have distinct functions, but one single entity, where every element participates in the global functionality. His architecture is also essentially space and shape of space, particularly in an era when materials engineering and technology barely impose constraints to the definition of space. In this context, a museum is for Wright one single continuous space, without walls or stairs or other elements not directly connected to the museum function.
The construction of the Solomon R. Guggenheim Museum in New York was terminated in 1959. It was one of Wright's last works and he himself has not been able to see it finished. The museum expresses very faithfully the architect's concepts. Its great organic quality appears in many aspects: the translation of the architectural programme into space, the organisation of the internal space, the continuity with external space, the continuity of the shape of the external facades, the multi-functional architectural details, etc. For these features the Guggenheim Museum is generally considered a masterpiece of modern architecture.
However, the organic quality is not limited to the formal and spatial aspects of the structure. It can be found as well in the construction technique and in the structural concept.

Left: the Guggenheim Museum before extension, seen from the West. Facade along 5th Avenue.
Photo: Wessel de Jonge.
Right: axonometry of the museum after extension by architect Gwathmey as finished last year.





A spider's web in concrete

Already the choice of reinforced concrete as almost exclusive material for the structure in all of its parts is an important premise for a structural organic quality. It has in fact allowed to build a structure of extra-ordinary continuity, where the functions of any element cannot be isolated*.

The vertical structural frame consists of 12 radial walls in reinforced concrete (identified by no. 1 in figure 1). These 'web walls' support the spiral shaped ramp which constitutes the internal floor (no. 2 in fig. 2). The perimeter wall in sprayed concrete ('gunite') stands on the ramp and is connected to the radial walls (no. 3 in fig. 1 and 2). All supports and connections are stiff joints. In this way the structure's behaviour is strictly monolithic, three dimensional and hyperstatic.

The ramp, the radial walls and the perimeter wall define the spaces, the 'rooms' where the works of art are exposed. The ramp protruding towards the centre performs the functions of a passageway and a balcony overlooking the atrium. Structurally it serves as a floor and diaphragm, connecting the high vertical 'web walls'.

The radial walls are the delimiters of the exhibition spaces, as well as the supports for the works of art. Structurally they are the principal sustaining elements, as supports for the ramp and as suspension points for the perimeter wall.

The perimeter wall constitutes the external shape of the building and provides it with its sculptural plasticity. Inside it acts as the main support for the works of art. Technically it behaves as a self supporting beam, and it is the hygrothermal barrier between inside and outside.

Poor air circulation

The most evident symptom pointing at a climatic problem is the condensation which develops inside on the lower part of the perimeter walls during Winter. This perimeter wall consists of 12,5 cm of concrete, a cavity of about 5 cm and a plaster panel. The thermal insulation of this combination is clearly not adequate for the fairly rigid climate of New York. During Winter the heat flow towards the outside is very high and the internal surface temperature too low.

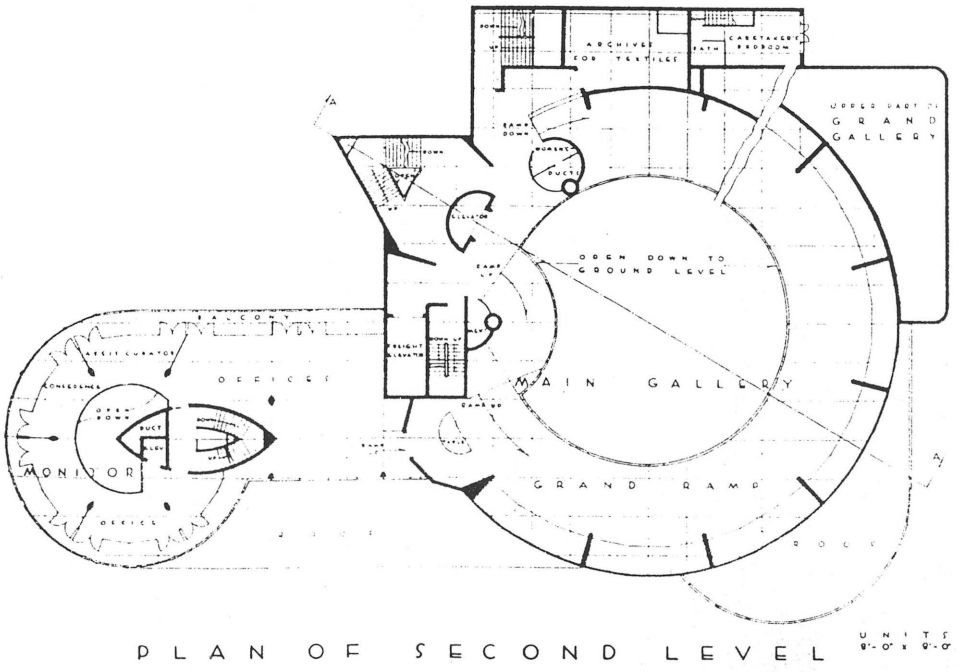
The air conditioning is distributed in correspondence with the internal parapet of the ramp (figure right). The internal space configuration of the building does not permit a good air circulation in the spaces between the perimeter and the radial walls. Thus the real problem is the climatic heterogeneity of the environment. The air conditioning is not capable to control the micro- climate near the perimeter wall, which follows closely the outside climate. The problem is rather serious especially because the works of art are exposed in this area.

Structural behaviour

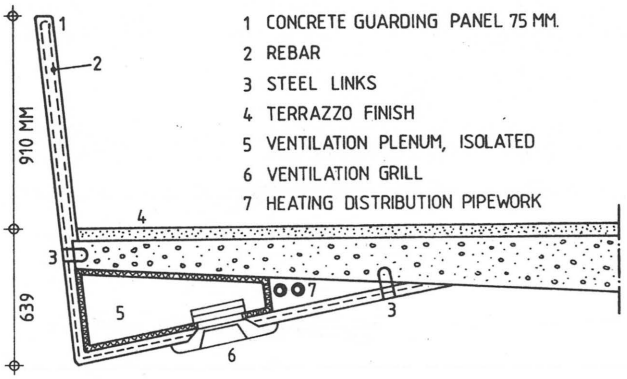
The most evident signs of structural distress are the vertical cracks that can be seen very well on the external facades (figure 3). One can easily imagine the cause of these problems knowing that the structure has no expansion joints.

The cracks appear to be disposed at regular distances. Their position corresponds with the joints of the perimeter wall with the radial walls, and with two intermediate positions, where the concrete encloses vertical 'T' shaped bars. Apart from these vertical cracks there are also horizontal ones at the joint between the perimeter wall and the floors.

The crack configuration is asymmetric for various reasons. The structure itself is asymmetric in floor plan (because of the elevator and staircases, and because of the interference of the lateral parts of the structure with the circular shape), as well as in



Left: plan of the original building by Frank Lloyd Wright.
Top: section through the guarding panel of the spiral ramp, showing isolated ventilation plenums. The distribution of air through these is insufficient.
Bottom middle: section through the outer skin of the main volume, showing the perimeter wall. Lightfittings behind the shutters provide artificial light according to daylight circumstances. The shutters can be lowered for maintenance. Drawings: Wessel de Jonge, after *Bouwadviseur* 1988/12.
Bottom right: cracks in the skin of the perimeter wall. Photo: Jeff Malliet.



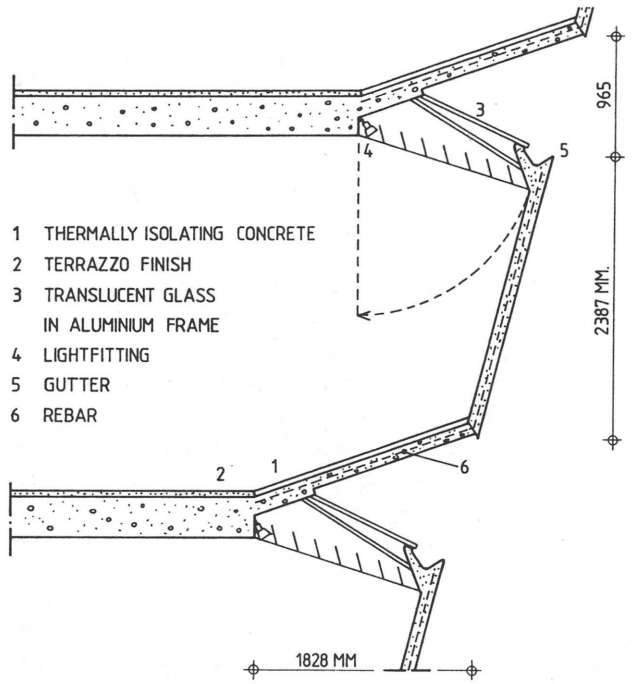
elevation (because of the spiral shape with its diameter increasing towards the top).
The effects of these structural asymmetry cumulate with those of the orientation of the surfaces. The North and North-East side, where there are the stiff structures of the elevator and the stairs, is where the surrounding buildings are highest. The main facade on Fifth Avenue is free standing and is on the South-West in front of Central Park, which allows free exposure to the sun. Figure 4 shows the relative sizes of cracks in function of orientation.
The most probable explanation for the mechanism of the distress is that the perimeter walls behave as a series of horizontal arches (fig. 5). Each arch is supported by the radial walls and stiffened by the ramp that acts as a diaphragm. Under the effect of the thermal expansion, the arch bends. As the joints are rigid it breaks at the points of minor resistance: where the thickness is reduced by the enclosed steel reinforcement. This explains the vertical cracks. The same movement tends to detach the arch (perimeter wall) from the diaphragm (floor) and causes the horizontal cracks (no. 3 in fig. 5).

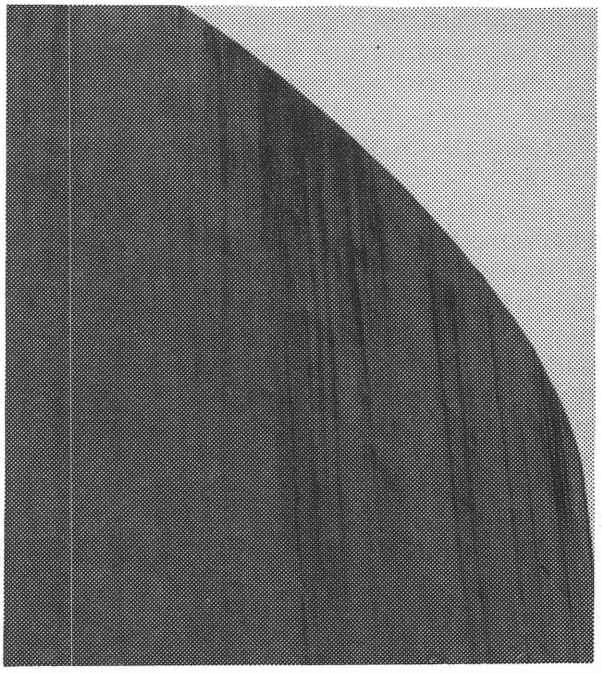
Consequences of the structural distress

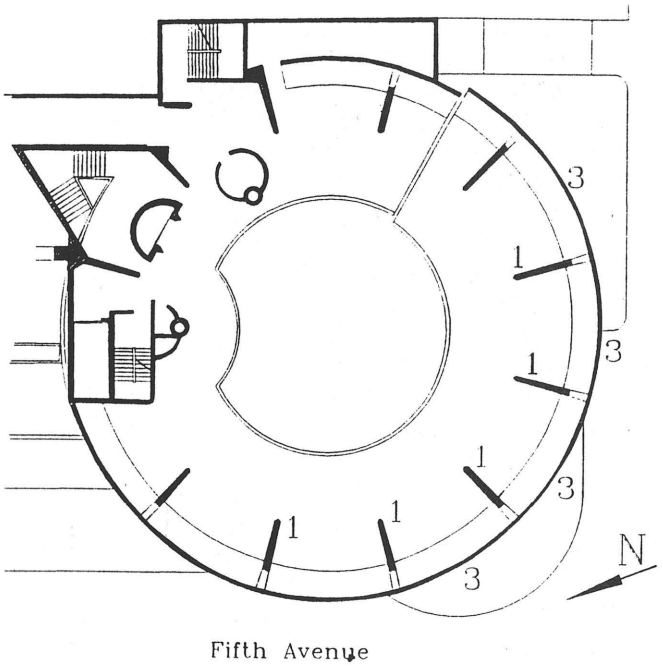
Because of the pronounced hyperstatic performance of the structural system, the cracks do not constitute an immediate danger for the static equilibrium. However, the effects can be harmful for other reasons.
The most obvious is the aesthetic aspect. On the facade, which was conceived and designed as a smooth and continuous surface, one can see very distinct black vertical lines. The cracks are preferential channels for the flow of atmospheric water and attract the transported dust and dirt.
The second reason is technical: the cracks interrupt the protective concrete barrier on the steel. Analyses have shown that carbonation of the cement is very limited after more than 30 years since its construction. It still is highly alkaline throughout the full thickness and therefore offers good protection against steel corrosion. This is certainly thanks to the fact that the surface has always been painted as foreseen in the design. However, the cracks break the continuity of this protective layer and attract and retain corrosive humidity.

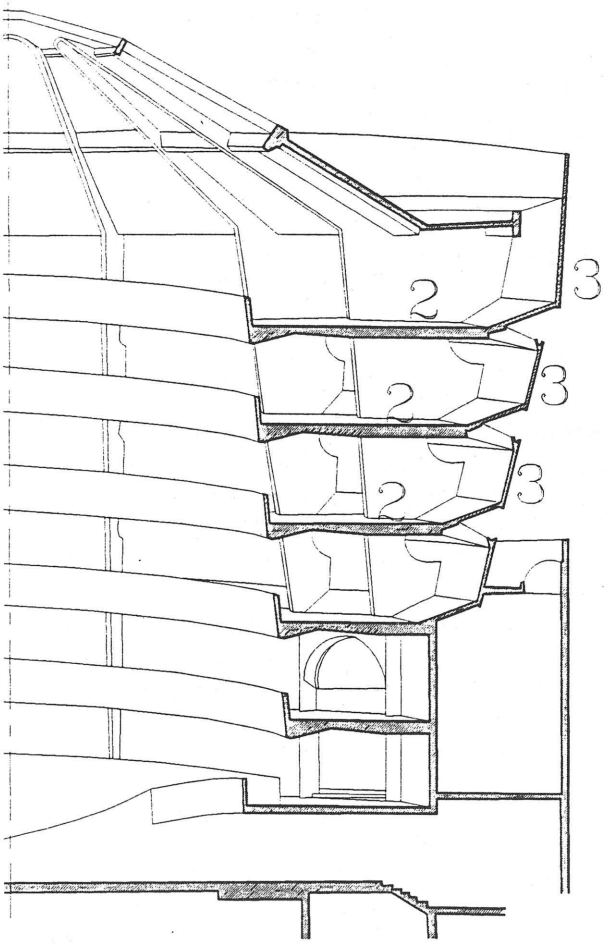
Causes of the problems

It is hard to believe that Wright, as a very affirmed architect, would have chosen such incompetent collaborators as to underestimate the structural behaviour and its consequences at the time of design.
The design choices that have caused the problems may have been inspired by the organic nature of the whole structure. It would have been very difficult to obtain a similar superficial continuity on the facade if expansion joints were applied as in normal constructions. The concept of expansion joints in itself is in contrast with the intrinsic continuity of an organic structure, as it would









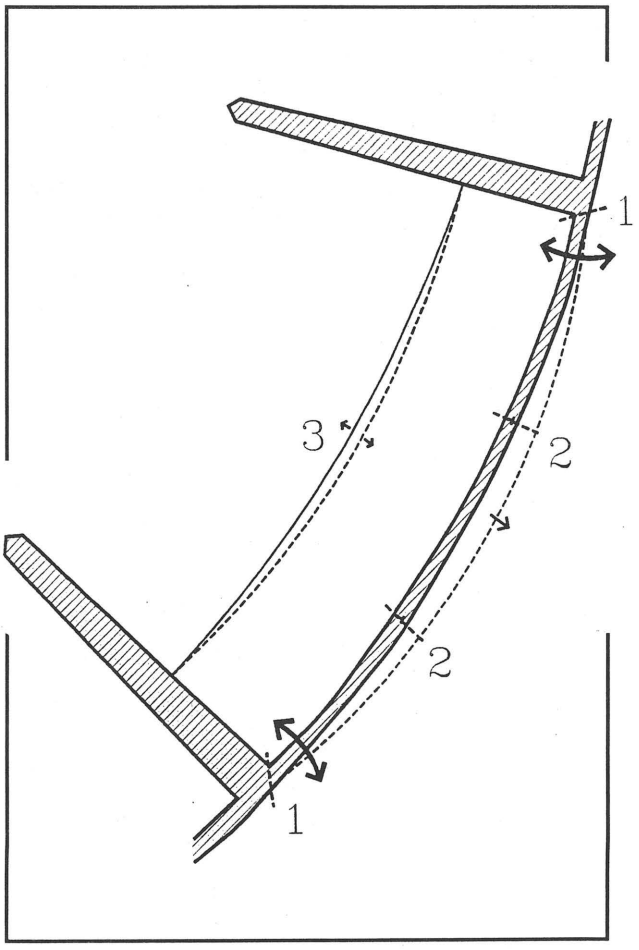
Top left: fig 1; plan section of a floor: 1 = radial walls in reinforced concrete, 3 = perimeter wall in 'gunite'. Top middle: fig 2; vertical section: 2 = spiral ramp in reinforced concrete, 3 = perimeter wall in 'gunite'. Diagrams by the author.

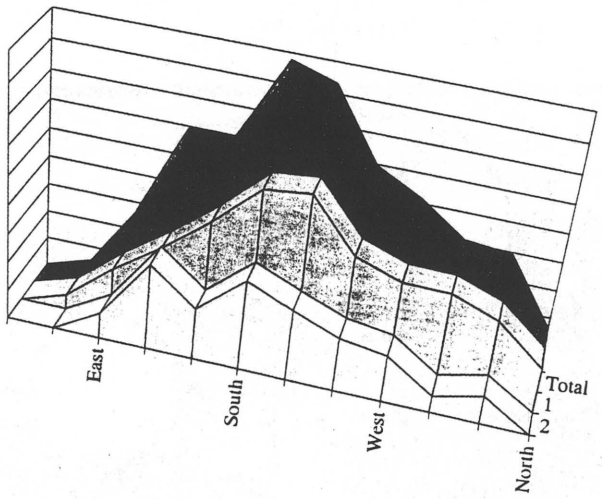
impose the structure to behave as an assembly of independent structural parts. In the same spirit also the addition of an isolating material would be in conflict with the architectural choices, as an addition with a very precise and individual purpose.

Apparently the two types of problems, the climatic and the structural one, are of completely different nature but may have a common cause. During the recent investigations it was seen that the average thickness of the perimeter 'gunite' wall is only 12,5 cm, and not 23 cm as was foreseen in the project.

It would be interesting to find the reason for this modification, which appears not to be documented. Only hypotheses can be made at this stage: probably the decision was taken during the execution phase for economic considerations, or because the rather experimental construction with the 'gunite' appeared to work so well.

Clearly not all consequences were considered. A wall with its thickness reduced to little more than half of the designed thickness has a much worse thermal behaviour, especially in this case where the concrete is practically the only isolating element together with a cavity of a few centimeters. The effect of the thermal expansion is much stronger because of an arch (perimeter wall) with much less stiffness than foreseen in the design.





Top right: fig. 4; relative width of the cracks related to the orientation: 1= in correspondence with radial walls, 2= intermediate.
Bottom: fig. 5; scheme of crack formation, plan section: 1 and 2= vertical cracks, 3= horizontal detachment.
Diagrams by the author.

Solutions to the problems

The described distresses require restoration. First of all the climatic conditions for the works of art must be improved. A solution that moves the paintings further from the wall would be unacceptable. The Museum was built especially for this function and for this collection, which is among the most important in the world. The building and the collection constitute an absolutely undividable unity.
The cracks must be treated in the first place to restore the protection of the steel. This is fundamental for the future preservation of the structure. Then also the formal continuity of the facade must be recovered.
It is impossible to conceive a method that would resolve these problems and at the same time would respect perfectly the character of the architecture. The problems are intrinsic to the design concepts themselves. Therefore those compromises must be found that are less damaging to these concepts and most advantageous for the future preservation of the collection and the structure.

Thermal insulation

The problem of the thermal insulation has been treated and solved by the addition of 'foamglas' panels on the inside of the walls. The application was done during the temporary closure of the museum for the addition of a new wing. The plaster panels that constituted the internal surface were removed; then the internal surface of the 'gunite' shell was cleaned and panels of 'foamglas' were attached directly to the concrete. Finally a new plaster finishing was applied internally, leaving a cavity as before.
The effect of the improved thermal insulation on the structural behaviour must be evaluated. The condition of the 'gunite' shell will follow much more closely the external climatic changes, while the temperature gradient through the thickness of the wall will be reduced.
These phenomena will directly influence the evolution of the existing static damage, since this was caused by the thermal behaviour of the structure. However, the effects are extremely difficult to quantify or evaluate.

Structural repair

Regarding the problem of the cracks, only hypotheses of repair have been made until now. The structure has created on its own the required expansion joints. Restoration of the cracks should leave this function intact, because it cannot be proposed to create new joints. Works that tend to modify the natural organic behaviour of the structure should be absolutely avoided, because the effects cannot be predicted. Treatment of the cracks must include accurate inspection and cleaning, protection of the exposed steel, filling of the empty space with a plastic sealant, and at the surface an elastic material that would allow normal painting, without causing too many aesthetic disturbance when it expands or contracts. No complex restoration design is needed, it's merely a question of finding the most suitable materials. A market investigation is required and preliminary testing of selected materials. After the treatment, in order to guarantee the longest possible life to the monument, regular and accurate inspection and maintenance are required, guided by the best knowledge and conscience of the architectural design.

Jef Malliet is an expert from Belgium and executive secretary of ICCROM, International Centre for the Study of the Preservation and Restoration of Cultural Property, Rome.
This article is a translation of his contribution to a conference about 'Il restauro dell'architettura moderna' held in Rome 14-16 May 1992, which was published in a proceedings early 1993.

* Note by the editor: according to literature, three different kinds of concrete have been used. For heavy constructive elements, concrete with slate granulite is said to have been used. According to the same source, a kind of concrete containing expanded clay is used for the ramp and the ceilings. To get smooth surfaces, for instance for walls, a common kind of concrete was applied (See: 'Techniques des Traveaux', 1960).

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