docomomo

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

Seventh DOCOMOMO Council meeting

Window fixings at the Bauhaus

MODERN HERITAGE IN AFRICA

March 2003

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editorial

Needless to say that DOCOMOMO is going through a phase of change, and the *Journal* represents the most visible result of those envisioned novelties. Wrapped in the Parisian landscape, I wish to keep in mind Nietzsche's imperative "Become who you are". Therefore, some features of DOCOMOMO's thinking will interact with aspects of my personnal attitude. Above all, I want to enrich the experiences of the founding decade with new contacts, and to remain loyal to the principle of the Constitution that concerns the exchange of ideas and expertise in the fields of **do**cumentation and **co**nservation of twentieth-century heritage. The *Journal* will operate as litmus test of a new critical reading of this principle. On the one hand, it aims at intensifying the operational network which remains the quintessential objective of DOCOMOMO International. On the other hand, it will open its pages to new cultures and new histories. This issue addresses the historically questionable legacy of modernism in non Western-countries by examining a few exemplary architectonic documents collected in some African regions. Here, we wish to question our common perception of voices that struggle to be heard and recognized within their own cultural identities.

As the new chair of DOCOMOMO International, I am fully aware of the many difficulties I will encounter during this process of introducing different yet equally valid ways of speaking and making visible the language of modern architecture and heritage. I am personnally involved in giving my energy to put in practice this attitude in the *Journal*.

MARISTELLA CASCIATO

Le Journal *représente, sans aucun doute, le signe le plus tangible des grands changements que* DOCOMOMO *est en train de vivre. Toute empreinte du paysage intellectuel parisien, je souhaite garder à l'esprit l'adage de Nietzsche « Deviens qui tu es ».*

De fait, certains traits de la pensée de DOCOMOMO *vont se fondre avec quelques unes des facettes de mon attitude personnelle. Je désire, avant tout, enrichir les expériences menées durant la décade fondatrice de* DOCOMOMO *par de nouveaux contacts et rester loyale au principe fondamental de la Constitution dont la mission est de favoriser les échanges d'idées et l'expertise dans les domaines de la* documentation *et de la* conservation *du patrimoine du vingtième siècle.*

Le Journal *va se positionner comme un laboratoire d'essai pour une nouvelle lecture critique de ce principe. D'un côté, il vise à intensifier le réseau de l'organisation, objectif fondamental de* DOCOMOMO International. *D'un autre côté, il a pour ambition d'ouvrir ses pages à de nouvelles cultures et de nouvelles histoires.*

Ainsi, dans ce numéro, le Journal *examine l'héritage, historiquement discutable du modernisme hors d'Occident, en analysant quelques documents architectoniques exemplaires projetés ou réalisés sur le continent africain. Dans ces cas précis, nous aimerions nous pencher sur notre perception habituelle de voix qui se battent pour être entendues et reconnues au sein de leur propre identité culturelle.*

En tant que nouvelle présidente de DOCOMOMO International, *je suis pleinement consciente des nombreuses difficultés que je vais rencontrer en introduisant diverses façons d'envisager et de parler le langage de l'architecture et du patrimoine modernes tout en le rendant plus visible. Je m'engage personnellement à donner toute mon énergie dans la pratique de cette attitude intellectuelle pour le* Journal.

MARISTELLA CASCIATO

Seventh

September 18/19, 2002, Paris, France

DOCOMOMO

Minutes

Council meeting

The Council Meeting, which concluded the 7th DOCOMOMO International Conference, had a special meaning and many intense moments. Twelve years after its foundation, DOCOMOMO International moved its headquarters to Paris. It now faces a new stage in its wide range of activities. Maristella Casciato, architectural historian and professor at the University of Bologna, is the new chair. She replaces Hubert-Jan Henket, architect and professor at the Technical University in Delft, the founding father of DOCOMOMO International. During the council meeting, Henket expressed his best wishes and said: "I am very positive and optimistic about change and the future, because I see that young people are increasingly present in DOCOMOMO. I believe that our strength comes from your commitment and from the ethic of the people who are taking over DOCOMOMO. Here is DOCOMOMO please run it carefully".

Photographies 7th council meeting - UNESCO Paris 2002 (unless mentionned)
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OPENING

The Chair (HJH) opens the 7th Council meeting at 19:00 and welcomes all representatives of DOCOMOMO Wps.
Aimée de Back (NL) proposes to start the council meeting with point 12 (Criteria for evaluation of Wps performance 2002-2004) instead of point 1.2 (Voting power).
Maristella Casciato replies that since the homework is related to the work of the ISC's, it would be better to respect the agenda and hear their reports before discussing point 12 but she suggests substituting point 10.5 (publications) for point 12.
The Chair (HJH) agrees with this proposal.

1 PARTICIPANTS IN THE 7TH COUNCIL MEETING

The Secretary ascertains that the countries mentioned in the agenda as participants are all present in council. He regrets the number of member countries absent.


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1.1 Members of Council

The following 25 countries comply with the 10-member minimum rule and participate in the 2002 Council Meeting
Argentina (Stella Maris Casal)
Australia (Scott Roberston)
Austria (Ute Georgeacopol)
Belgium (Jean-Marc Basyn)
Brazil (Hugo Segawa)
Bulgaria (Miriana Iordanova)
Canada-BC/Ont (Robert Lemon)
Canada-Quebec (France Vanlaethem)
Cuba (Eduardo Luis Rogriguez/Jose Antonio Choy)
Estonia (Mart Kalm)
Finland (Maija Kairamo)
France (Fabienne Chevallier)
Greece (Panayotis Tournikiotis)
Iberia (Susana Landrove)
Israel (Arie Sivan)
Italy (Luca Veresani)
Japan (Hiroyuki Suzuki)
Latvia (Janis Krastin)
Netherlands (Aimée de Back)
Scotland (Miles Glendinning
Slovakia (Henrietta Moravcikova)
Switzerland (Catherine Dumont d'Ayot)
Turkey (Yildiz Salman/Nilufer Baturayoglu Yöney)
United Kingdom (Catherine Cooke)
United States (Theodore Prudon)

The following countries are in council but did not meet the ten-member minimum.
Croatia
Czech Republic
Denmark
Germany
Hungary
Ireland
Lithuania
Norway
Poland
Romania
Russia
Slovenia
Sweden

EC Chairman:
Hubert-Jan Henket
EC Secretary:
Wessel de Jonge
EC Member:
Maristella Casciato
EC Member:
Jean-Louis Cohen

1.2 Voting power

The Chair reminds those present that there are criteria to be respected regarding voter eligibility. Every member of the council is free to speak but if their country does not comply with the criteria they do not have voting power.
The Secretary mentions who has voting power (see 1.1) and underlines that there have been some adjustments since the last printed version every country received in its dossier.
He adds that after consultation of the ISC for Registers, for this very special event being the transfer of DOCOMOMO International from Holland to France, it was decided to drop the criterion on the homework. This means that the only criterion for voting rights is whether the country has a minimum amount of members or not. The only exception, Latvia who had applied for reduction from 10 to 3 members, now complying with the 10-member requirements, he suggests abandoning this exception as well.

1.3 New Working parties

The Chair announces that two new countries have submitted an application for recognition as Wps.

1.3.1 Vote on DOCOMOMO Turkey

The Chair puts to the vote Turkey's candidacy. Turkey has supplied all requested documents and has the required support from four other Working parties: Austria, Germany, Netherlands and Italy. (Appendix 2 of the Council meeting dossier, mailed July 26, 2002).
The Council unanimously accepts Turkey as a new National Wp and DOCOMOMO Turkey is added to the above list.
The Chair and Maristella Casciato congratulate the Turkish representatives, Nilufer Baturayoglu Yöney and Yildiz Salman, on behalf of all delegates.

1.3.2 Vote on DOCOMOMO Cuba

The Chair puts to the vote Cuba's candidacy. Cuba has supplied all the requested documents but has only provided with three letters of support from other Working parties: Italy, Greece; Netherlands.

Luis Hortet asks if individual members from countries without voting rights can become ISCs' members.
The Secretary replies that any paying DOCOMOMO member can be part of an International committee whether his country has voting rights or not. He proposes postponing the discussion because the new chairman is working on a new structure regarding this issue.

(Appendix 3 of the Council meeting dossier, mailed July 26, 2002)
The Secretary adds that DOCOMOMO Quebec is willing to support Cuba.
France Vanlaethem confirms this statement and gives her oral support for Cuba's candidacy.
The Council unanimously accepts Cuba as a new National Wp and DOCOMOMO Cuba is added to the above list.
The Chair and Maristella Casciato congratulate the Cuban representatives, Eduardo Luis Rodriguez and Jose Antonio Choy, on behalf of all delegates.
The Chair adds that he hopes new countries still working on their applications will soon be able to join the DOCOMOMO network.

2 EXECUTIVE COMMITTEE IN 2002-2004

2.1 Report 2000-2002

2.2 Resignation of the Executive Committee chair

The Chair reflects that this part of the council meeting is a very important and emotional moment because DOCOMOMO is undergoing a significant change and because he will now step down from the organization which he founded fourteen years before.
Hubert-Jan Henket's speech (see next page).

2.3 Confirmation of the new Executive Committee chair

Maristella Casciato thanks the Chair for his emotional speech and for his full support. She states that she will keep two things that she loves in DOCOMOMO: creativity and friendship. The total commitment everybody shows in DOCOMOMO makes it unique. She says that for the future, although she does not much like the word globalization, it will be important, as DOCOMOMO is growing, to move towards a future with a different face involving more countries, more heritage, more architecture, more town planning and more landscape. In that sense, Maristella Casciato will have to be more active and present. She also wishes to gradually increase the importance and the collaboration of two major groups of works of DOCOMOMO: the education and the Register committees.
She states that she will need the help of all members and Wps because DOCOMOMO will move from a rather established situation to a new stage but she promises to maintain its true spirit.
From now on Maristella Casciato replaces Hubert-Jan Henket as Chair of DOCOMOMO.

HUBERT-JAN HENKET'S SPEECH AS DOCOMOMO'S FOUNDER

In the opening speech on Wednesday, I thanked many people already. I mentioned all of the Working Party members around the world who did an enormous amount of work to get DOCOMOMO where it is today. I particularly thanked the Specialist Committees for their work. I thanked the staff of DOCOMOMO International. I thanked Wessel for the work he did. I particularly thanked DOCOMOMO France for getting and preparing the new international secretary in Paris and for the proposal of appointing Maristella Casciato as the new chair. So, I thanked quite a few people already. Yet, and I thought that was not something we should do in the opening speech but just in the midst of DOCOMOMO, I would like to mention a few more people whom I would like to thank, because any leader cannot function without a few antennas.

I had a few of these who did a enormous amount of work, one of whom is no any longer among us who is Christopher Dean. Christopher in the beginning helped me tremendously. Second is Maristella who has been with us right from the beginning and who balanced our Anglo-Saxon orientation with her Mediterranean approach. Thirdly, I would like to thank somebody who is not here tonight but also worked a lot for DOCOMOMO who is Allen Cunningham. Although he is not here tonight I would like to thank him for all the work he did for DOCOMOMO. And the last antenna I got is Lily my wife who always talked to people in a totally different way about their own personal situation. It is always very important to know what is going on that level. That doesn't mean to say that everybody else here in the room did not do anything, on the contrary, but then I would almost have to mention everybody and we would go too far. I would now like to ask your attention for the three jewels of DOCOMOMO. I would like you to keep them as long as you can. One, is the constitution. The DOCOMOMO constitution is, on purpose, very very small. And, I would say "small is beautiful" because the idea of the whole thing is that we have as much freedom at a local level as possible so that you can operate as working parties in your own way and have as little central intervention as possible. This is the only way to survive. The second jewel of DOCOMOMO, I think, is that we've always tried to keep bureaucracy to an absolute minimum and I would recommend to continue this because when you talk to people from other organizations, they tell you, as soon as they get bigger, bureaucracy increases and that is the end of their organization. So, please be very aware, even in Council, keep your bureaucracy to an absolute minimum, because we are a voluntary organization. Be efficient with you spare time, spend it on the essentials. Third, I think that motivation and friendship are the two only things which DOCOMOMO has to thank for its enormous success and production. I would like to say that only energy comes from motivation and friendship. That what we have done up to now and that has produced "a hell of a lot". Please, stick to them because that is the only way we will be able to get bigger and even more influential. Many people approached me and asked me "What will happen of DOCOMOMO after you leave" and "Aren't you afraid that it is going to change dramatically ?". My response to that is very simple. It won't. I am very hopeful and very positive about the future and I've got two very good reasons for that. They are a combination of what I tried to say in the introduction of the book "Back from Utopia"..

I have always been fascinated by the two opposites, continuity and change and trying to find a good balance between them. Well, as far as continuity is concerned, I am very pleased with the French proposal because Maristella symbolizes continuation in DOCOMOMO. She has been with us right from the beginning. And also, within that continuation, again, when I look around I see many faces of people who have been with us right from the beginning. Those people together have made the peculiar DOCOMOMO bond of friendship and that we should continue first and foremost. But change is equally important, because change is very important as well for an organization like DOCOMOMO. I am also very positive and optimistic about change because when I look around I see that young people are increasingly present among DOCOMOMO and also in this conference and around this table and that is the future of DOCOMOMO, it is your future. So, quite frankly, I think that as long as we allow for change and let it come from the younger generation and if we go home believing in our strength from the people who are going to take over, then I think that we'll be all right. Therefore, I would like to give you an advice. Maristella is obviously going to be in a difficult situation because she is taking over an established organization and that is much more difficult than starting something. So, she needs a lot of help and I would like to advise the Council to follow her wishes and accept what she thinks is best for the future. That brings me to the emotional moment. Maristella, I give all my trust to you. Here is DOCOMOMO please run it carefully, it is a beautiful treasure.

3 INTERNATIONAL SECRETARIAT IN 2002-2008

3.1 Report 2000-2002

The Secretary mentions that they have again "professionalized" the International secretariat. Though publications are not their principle activity, they produced a lot of work which has led to the publication of the Registers book and of the book "Back from Utopia". He wishes to thank the staff, Eleonoor Jap Sam who has been a great help, Eva Lute who did many of the administrative tasks, and Emil Fraai who produced some of the journals almost by himself over the last few years.
Regarding the report and financial account for 2000-2001 for which many changes occurred, he proposes to postpone its explanation until all accounts are transferred to the new secretariat in Paris and to publish a complete report in the Journal.
Theodore Prudon asks if reductions of memberships are a structural issue.
The Secretary replies that it is not because memberships always increase tremendously during conference years just before the Council meeting and that people tend to register in the years there are conferences and forget the year after.
The Chair recognises that Theodore Prudon raised a very crucial issue. The International Secretariat will develop strategies to increase the number of memberships which are vital for DOCOMOMO.
The Secretary concludes the discussion on financial report saying that although figures show a slightly negative result for the year 2001 for the DOCOMOMO foundation, this will be balanced by the remaining budget in DOCOMOMO's bank account.

3.2 Location of the International Secretariat in 2002-2008

The Chair introduces the topic of the International Secretariat which will be transferred from Delft to Paris after the Seventh Conference. She asks Fabienne Chevallier to explain the various stages of the process.
Fabienne Chevallier first thanks Maija Kairamo for the quality of the debate between Finland and France, which both elaborated proposals for hosting the Secretariat. She states that the French proposal bears a completely different configuration than the one in Delft because of the complete separation between DOCOMOMO International and DOCOMOMO France which makes things very clear. She thanks Maristella for her skills and highly professional attitude. She mentions the legal procedures undertaken with a lawyer and the close collaboration with the new hosting institution the IFA-Cité de l'architecture et du patrimoine.

3.3 Exceptional procedure: appointing new EC secretary for 2002-2004

Fabienne Chevallier explains the recruitment procedure for the Secretary. The call for submissions was made on the internet in order to get as many candidacies as possible. Thirteen candidates from nine countries sent resumes.
The selection committee, formed by Fabienne Chevallier and Alice Thomine (DOCOMOMO France), Jean-Louis Cohen (IFA-Cité de l'architecture et du patrimoine) and Maristella Casciato (New elected chair of DOCOMOMO International) pre-selected five candidates and interviewed them. Emilie d'Orgeix was the successful candidate.
The Chair thanks Fabienne Chevallier for her great work and Maija Kairamo for having accepted the competition.
Maija Kairamo answers that she very much enjoyed the debate. She congratulates DOCOMOMO France and Maristella Casciato.

3.4 Resignation of the Executive Committee secretary

The Secretary steps down from his position. He thanks all DOCOMOMO members for helping him with the Journal. He hopes to continue to assist the new Secretariat in its work.

3.5 Confirmation of the new Executive Committee secretary

Emilie d'Orgeix is confirmed. She expresses her gratitude for having been selected and promises to do her best to equal the work done by the Secretariat in Delft.

4 8TH AND 9TH INTERNATIONAL DOCOMOMO CONFERENCES

4.1 Evaluation of the 7th Conference

The Chair suggests that it is too early to evaluate the Seventh Conference as it is still in process. She proposes to organize an evaluation after the final session. She expresses her thanks to DOCOMOMO France and the IFA-Cité de l'architecture et du patrimoine for the excellent quality of this very large event which involves more than 460 participants.

4.2 Confirmation of the 8th International Conference in 2004

The Chair introduces the US Working party which offered to host the Eight Conference in New York, from 29 September to 2 October 2004 (Appendix 5 - mailed July 26, 2002). She reminds Council that there will be an official presentation of the Conference on Thursday, September 19, 2002 and that no other proposals have been received.

4.3 Resignation of the EC member for the 7th Conference

The Chair thanks Jean-Louis Cohen member of the Executive Committee for his work as organizer of the Seventh Conference. He steps down and is thanked by the Executive Committee and all the Wps.

4.4 Confirmation of the EC member for the 8th Conference

The Chair welcomes Theodore Prudon who replaces Jean-Louis Cohen in the Executive Committee as organizer of the up-coming Eight Conference. She also congratulates Helene Lispstadt who takes over as representative of DOCOMOMO in the Council in replacement of Theodore Prudon.
Theodore Prudon proposes to respond to all questions regarding the Eight Conference. He explains that DOCOMOMO US is extremely pleased that the Eight Conference can be hosted in New York in 2004 and especially in partnership with Columbia University. The topics will be more clearly defined in the coming months. He knows that some members are concerned about

expenses and fees but emphasizes that there will be sufficient funding.

4.5 9th International Conference in 2006

The Chair is concerned by the fact that no proposals have yet been received. She welcomes proposals and will consider them all. The deadline is extended to February 1, 2003.
Catherine Cooke appreciates that the DOCOMOMO US project explained well what will be the national spin-off. Having strong connections with poor countries, she would like to urge poorer countries not to be discouraged by the splendor of the US proposal. Every country that hosts a conference does it their way and could assist and strengthen a Wps position nationally.
The Chair fully agrees with Catherine Cooke. In DOCOMOMO, it is the spirit which is essential.

5 NEW EXECUTIVE COMMITTEE MEMBER FOR THE ISCS

5.1 Resignation of the Executive Committee member for the ISCs

The Chair introduces point 5 which concerns the reorganization of the Executive Committee. According to the Constitution, the four members are: the Chair, the Secretary, the representative of the country hosting the next conference and the representative of International Specialists Committees. Having been elected Chair of DOCOMOMO, vcbshe steps down as the ISC member of the EC.

5.2 Vote on the new Executive Committee member for the ISCs

The Chair puts to the vote the candidacies for the position of a new EC member. Two candidacies have been received: France Vanlaethem nominated by DOCOMOMO Quebec and Ola Wedebrunn nominated by DOCOMOMO Scotland. Both candidates have been approved by the EC.
As France Vanlaethem withdrawn after consultation, Ola remains the only candidate.
Ola Wedebrunn states that he is willing to work diligently for the cause of DOCOMOMO and that he would like to try to better unite the work of the ICSs and of the EC.
Ola Wedebrunn is unanimously elected by Council.No replacement is made for a Danish representative in Council.

6 CONSTITUTIONAL MATTERS

The Chair explains that, as consequence of the establishment of the international headquarters in Paris (France) for the years 2002-2008, she has had to make some constitutional changes mainly regarding the legal structure of DOCOMOMO.

6.1 Legal structure of DOCOMOMO International

The Chair briefly explains the few necessary changes to the new legal structure of DOCOMOMO International in France. She states that this new structure will permit acceptance of financial support from the French government and the Ministry of Culture. She expresses her thanks to Fabienne Chevallier and Alice Thomine (DOCOMOMO France) who were both very helpful in finding a lawyer who respected the DOCOMOMO Constitution and its spirit. She puts to vote the change in the constitution which appears in paragraph 4.1.2. of the appendices stating that:
"DOCOMOMO International is a legally recognized non-profit organisation, established in France in accordance with French law (Loi du 1er juillet 1901, décret du 16 août 1901). In accordance with its statutes it has a chairperson (i.e. the elected chair of DOCOMOMO), a secretary (i.e. the elected secretary of DOCOMOMO). The secretary also acts as treasurer."
Theodore Prudon remarks that it would be better to first examine the global structure of DOCOMOMO as explained in points 6.2 to 6.3 before moving on to the vote on point 4.1.2. He adds that he is slightly puzzled by the fact that French law would allow non-French citizens to vote on the financial affairs of an organization based in France.
The Chair agrees on reading points 6.2 .to 6.3. She also replies that she will consult with the lawyer on these two issues. She adds that, so far, there are no major changes in the constitution and that a French non-profit organization is permitted to select non-French citizens as chairs and members. The only important point in this new constitution is to establish a "Bureau". According to the new French legal status, the members of DOCOMOMO EC constitute the members of the "Bureau". The Chair of the EC or Bureau is only accountable for financial decisions approved by Council. In addition to the "Bureau" or EC, it is also important to create a "Conseil scientifique" which would correspond to an Advisory Board in English terms.
Theodore Prudon raises the question of the relationship between the Advisory Board and the Council. To him they appear to be parallel structures.
The Chair replies that the Advisory Board aims to assist the EC in raising funds and getting financial support but does not act as a parallel structure. It is useful for strategic projects.
France Vanlaethem underlines that the Advisory Board was already in the French proposal for DOCOMOMO 2002-2008 which was accepted in Brasilia in 2000. There is no point in discussing it again today.
Stella Maris Casal proposes to consider that since the founder of DOCOMOMO, Hubert-Jan Henket, stepped down from his former position, it would be pertinent to include him in the new advisory board.
The Chair replies that, as the president and founder of DOCOMOMO, Hubert-Jan Henket has a very special role to play within the organization. She proposes he becomes the honorary president of DOCOMOMO International.
Hubert-Jan Henket willingly accepts this position.
Helene Lipstadt asks if someone could draw an organizational chart of the new structure of DOCOMOMO.
The Chair replies that she will work on this organization chart.
Scott Robertson suggests to replace the word "second" by "assist" in paragraph 7.e of point 6.3.
The Chair agrees with this suggestion.
Catherine Cooke points out that some terms imply legal accountability, like "trustee" and that we might be

careful when translating French law into English.
Luis Hortet asks the Council to leave matters of terminology and legal terms to professional lawyers and legal consultants. He adds that, to him, these legal structures are quite similar all around the world. They are always structured with an executive committee, an advisory board and so on.
The only point he would like to return to is the fact that the Council only meets once every two years. This is not enough. He proposes to involve more the Wps in having a council meeting every year instead of every two years.
Arie Sivan again suggests leaving all legal issues to specialists.
He adds that, as DOCOMOMO is an informal and an International network, it would be very difficult to gather all the Wps together and to organize a yearly Council meeting. E-mails meetings could be organized but the spirit and enthusiasm of all DOCOMOMO gatherings would not be there.

Ola Wedebrunn agrees with Arie Sivan that maintaining the informality of DOCOMOMO meetings is crucial.
Luis Hortet reminds the assembled that the same complaints arise every two years especially regarding the lack of new memberships and that no solution has ever been found.
The Chair adds that this is why she is very much in favor of new technologies such as the Internet and the development of a professional DOCOMOMO website which will be crucial for the resolution of those issues.She puts to the vote paragraphs 6.1, 6.2, 6.3 regarding the DOCOMOMO Bureau and advisory board including the changes mentioned during the Council Meeting.

6.2 Addition of § 7.d) to the Constitution: DOCOMOMO Bureau
Proposal for the creation of the DOCOMOMO International Bureau as the legal body for DOCOMOMO International.
Maristella Casiato reads the new Constitution paragraph 7.d. as discussed with the Council:
The DOCOMOMO Bureau is established to provide the legal recognition of DOCOMOMO International in France in accordance with the Law of 1901.
The members of DOCOMOMO EC constitute the members of the Bureau.
The Chair of the EC is the Chair of the Bureau.
The Chair of the Bureau represents DOCOMOMO in all public and official occasions.
The Chair is responsible for t he implementation of financial decisions approved by Council.

6.3 Addition of § 7.e) to the Constitution: Advisory Board
Proposal for the creation of the DOCOMOMO International Advisory Board. The new agenda of DOCOMOMO International (see DOCOMOMO Journal, 26) includes the creation of the Advisory Board. The Advisory Board is particularly involved in strategic projects, whose development requires specific expertise and skills.
The Chair reads the new paragraph 7.e as discussed with the Council:
The DOCOMOMO International Advisory Board is elected by Council to assist the Chair of the DOCOMOMO Executive Committee on strategic projects.
The DOCOMOMO Executive Committee indicates these projects to Council for approval.
The Chair and the Secretary of the Advisory Board are the same as for the DOCOMOMO Executive Committee. Additional members are elected by Council for a period of two years.
The Council unanimously accepts the changes to the constitution mentioned in paragraphs 6.1, 6.2., 6.3.
The Chair points out that the wording will be adjusted by lawyers and language experts.

7 VOTE ON THE DOCOMOMO BUREAU 2002-2004

(this point was deleted from the Agenda according to the last version of Constitution paragraph 7.d)

8 VOTE ON THE DOCOMOMO ADVISORY BOARD 2002-2004

8.1 Vote on the 2002-2004 projects for the Advisory Board.
The Chair introduces the program of the Advisory Board for the years 2002-2004 which will focus on the following three projects:
1. The geographic expansion of DOCOMOMO International and the recruitment of new Working parties,
2. The creation of the DOCOMOMO website and portal,
3.The development of joint actions with the Unesco World Heritage Centre.

8.2 Vote on the 2002-2004 candidacies for the DOCOMOMO International Advisory Board
The Chair explains that, for the Advisory Board, she requires the help of efficient colleagues to represent the various areas of DOCOMOMO International.
Considering these strategic projects, experts in related fields were invited to put forward their candidacy to take a position in the Advisory Board for the period 2002-2004.
She would like to invite, if possible, the following DOCOMOMO members:
- Wessel de Jonge (DOCOMOMO Netherlands)
- Hiroyuki Suzuki (DOCOMOMO Japan)
- France Vanlaethem (DOCOMOMO Quebec)
- Jean-Louis Cohen (IFA-Cité de l'architecture et du patrimoine, France)
- Hugo Segawa (DOCOMOMO Brazil)

The Chair adds that she knows many other people have expressed their interest and she thanks them all but she thinks that the members she proposed make a coherent group to work with and meet with her expectations.

She proposes to vote for the Advisory Board as a group.
Hiroyuki Suzuki asks what the obligations of his new position as member of the Advisory Board are.
The Chair replies that she sees all members of the Advisory Board as counselors regarding the expansion of DOCOMOMO territories and the financing of new projects.
Luis Hortet asks how many candidates were rejected and how the selections were made.
The Chair replies that being indebted to many persons, she would prefer not to mention names.
Luis Hortet replies that transparency is required and that she has to explain why and how some candidacies were rejected.
The Chair replies that, as new Chair of DOCOMOMO, she made her own choice regarding the constitution of the Advisory Board and that she will motivate her choice selection later.
She puts the issue to vote.
Council vote in favor of the proposed members with three abstentions.
(See also 12.2 and Addendum)

9 MEMBERSHIP OF DOCOMOMO INTERNATIONAL

9.1 Vote on membership and fees 2002-2004

The Chair introduces the current changes made by the Executive Committee regarding fee percentages per country.
Cuba: 0 % (already agreed for single members by Council)
South Africa: 40 % (preliminarily agreed for single members by the EC)
Turkey: 40 % (officially applied for by the new Working party).
In addition to proposed changes, the following reductions are proposed:
Argentina: 0% until 2004 (given present economical circumstances-accepted).
Bulgaria: 0% until 2004 (given present economical circumstances-accepted).
Andras Ferkai says that on behalf of DOCOMOMO Czech Republic, Slovakia, Poland and Hungary Wps, they propose to pay 100% only after they will enter the European Community. His request is accepted by the Chair.
Catherine Cooke remarks that the International membership fee is quite high and she proposes to consider lowering the membership so that we would attract more members.

10 INTERNATIONAL SPECIALIST COMMITTEES

The Chair reminds Council that the International Specialist Committees had their preparatory meetings on Monday September 19, 2002.
She asks them all to report quickly.

10.1 ISC / Registers

10.1.1 Report 2000-2002

Marieke Kuipers notes that she can be brief because all reports of the Committee were published in previous DOCOMOMO Journals.
To summarize the work of the ISC/Registers:
1- Much work was done to prepare a proposal for digital fiches in order to create weblinks.
2- The ISC/Registers asked submission for the project submitted by ICOMOS entitled "Heritage@risk". Up to now, the committee has not received any further information.
3- Much effort was spent to motivate the Wps to extend, deepen and enrich their homework.
4- New plans of action were developed.
She stresses that the ISC/Registers need more financial support especially from the International Secretariat. She recalls that the Committee met twice in Budapest (Hungary) and in Sabaudia (Italy).
She notes that the only Wp that submitted new fiches is the Dutch working party and she is pleased to say that it opens up new perspectives for post-war and urban heritage.
She thanks Maristella Casciato for the work she accomplished as chair of the ISC/Registers and congratulates her on her new position.

10.1.2 Vote on membership of the ISC/R

The Chair first announces that David Whitham (DOCOMOMO Scotland) resigned and she wishes to thank him for his work and commitment.
Marieke Kuipers adds that Luc Verpoest (DOCOMOMO Belgium) also stepped down from his position and thanks him for his work.
New nominated members:
Noni Boyd (Australia)
Marc Le Cœur (France)
Inge Bertels (Belgium)

10.1.3 Vote on nominated chair

The Chair announces that the ISC/R nominated Panayotis Tournikiotis (Greece) as the new chairperson of the Committee. His candidacy was also approved by the EC. She puts to the vote this new candidacy.
Panayotis Tournikiotis is unanimously accepted as new chair of the ISC/Registers.

10.1.4 Vote on nominated secretary

Maristella Casciato informs Council that Marieke Kuipers is willing to accept one more term as secretary of the Committee. She states that the EC is grateful for her decision to continue in this demanding position until 2004.She puts the vote on the renewal of her position Marieke Kuipers is unanimously reelected as secretary of the ISC/Registers

10.1.5 Vote on Resolutions

None received

10.1.6 Plan of action for Registers 2000-2002

Panayotis Tournikiotis thanks the EC and Maristella Casciato for having accepted his proposal. He presents his new plan of action which will consist in building an electronic database by involving all Working parties as well as the International Secretariat. He wishes to institute a yearly update of the registers by adding 5 fiches a year per Wp.
He wishes to publish the ISC/R proceedings in a book series and to make posters on specific themes.
In October 2003, the ISC/Registers will organize in Greece its first international seminar on the theme of "Sport buildings: the culture of the body and modern architecture".
(See detailed plan of action published p 14)
The Chair puts the to vote this plan of action.

The Council unanimously accepts the ISC/Registers 2002-2004 plan of action.
The Council meeting is interrupted because of the room availability at the Unesco.
It is decided that work will be taken up again on September 19, 2003 at 18:00 in the meeting room of the palais de Chaillot.

September 19, 2002 –
Palais de Chaillot Second part of Council Meeting

EC Chair: Maristella Casciato
EC Secretary: Emilie d'Orgeix
EC Member: Ola Wedebrunn
EC Member: Theodore Prudon

Not present were the representatives of: Sweden, Czech Republic, Estonia, Croatia, Romania, Latvia, Ireland, Russia, Switzerland

10.2 ISC / Education & Theory

10.2.1 Report 2000-2002
The Chair introduces the work of the ISC/E&T Committee recalling that Allen Cunningham (UK) vacated the chairmanship several years ago, and that Catherine Cooke (UK) also decided to resign. Both have been very influential for the Committee. Other current members are prepared to continue.

10.2.2 Vote on membership of the ISC/E & T
The Chair announces that the French Working party nominated Jean-Yves Andrieux as a candidate member of the Committee. His candidacy was approved by the EC.
Jean-Yves Andrieux not being present, Arie Sivan, co-chair of the Committee will present the new structure and plan of action.
Arie Sivan says that the Committee met a few days before and they agree to adopt several resolutions.
The following members were present, Arie Sivan (Secretary), Mabel Scarone (Argentina), Jean-Marc Basyn(Belgium), Kaisa Broner-Bauer (Finland). Daniel Bernstein (France) and Luc Verpoest (Belgium) were absent.
The Committee regretted the resignation of Allen Cunnigham and of Catherine Cooke. Daniel Bernstein expressed his wish to continue his work within the ISC/E & T.
The Committee also decided that the members who did not express their willingness to continue, namely Ben Rebel (NL) and Luc Verpoest (Belgium), should resign.
New members are proposed to the vote of Council:
Jean-Yves Andrieux – France
Hubert Beringer - Canada Quebec
Fabienne Chevallier – France
Claude Loupiac - France
Rejean Legault - Canada
Judi Loach – United Kingdom
Sonia Marques – Brasil
Herietta Morachikova - Slovakia
Nina Rapaport – USA
Raquel Rapaport – Israel
Yoshi Yushi Yamana - Japan
Council unanimously accept the proposed new members.

10.2.3 Vote on nominated chair
The Chair proposes to put to the vote the candidacies of Jean-Yves Andrieux as Chair and Arie Sivan as co-chair of the ISC/E&T Committee.
Jean-Yves Andrieux and Arie Sivan are accepted as new chair and co-chair of the ISC/E&T with three abstentions.

10.2.4 Vote on nominated secretary
The Chair announces that Jean-Marc Basyn and Kaisa Bröner-Bauer are proposed for the positions of secretary and co-secretary of the Committee. She puts the vote on the renewal of their positions.
The Council unanimously accepts Jean-Marc Basyn and Kaisa Bröner-Bauer.

10.2.5 Vote on Resolutions
None received

10.2.6 Plan of Action for Education & Theory 2002-2004
Arie Sivan introduces the new plan of action which aims to be very simple, modest and realistic.
The priority is a DOCOMOMO database of resources on Education which would lead to an inventory of libraries, bibliographies, theses and programs dedicated to the MOMO. These resources would be available on DOCOMOMO national websites. The Committee would prepare guidelines.
(See detailed plan of action published p 15)
Maija Kairamo complains that some people in the Committee are unknown to Council. She stresses that there should be a more efficient organization within DOCOMOMO ICSs.
Wessel de Jonge underlines that only discipline by the Wps to distribute information among their members can prevent this kind of problem.
The Chair asks for a more clarity from people who are in charge of the ICSs.
Wessel de Jonge says that four Wps still do not have E-mail addresses and that this also leads to problems of communication.
The Chair puts to the vote this plan of action.
The Council unanimously accepts the ISC/Registers 2002-2004 plan of action.
The Chair puts to vote on this plan of action.
The Council accepts the ISC/E & T 2002-2004 plan of action; with three abstentions.

10.3 ISC / Technology

10.3.1 Report 2000-2002
The Chair introduces the work of the ISC/Technology. The report of the work done in 2000-2002 includes several publications. These include the "Modern Stone - The principle of Cladding" which will be published by the end of 2002, and the "Modern Color Technology" which was published in 2002. The Committee also worked on the database and hopes to improve and revitalize it. All Wps will be asked to participate in implementing the database of technology experts.

10.3.2 Vote on membership of the ISC/T
Current members are willing to continue, namely Wessel de Jonge (NL), Els Claessens (Belgium) and Pölman (NL). Other members Hans Jürgen Kiehl (Norway), Jadwiga Urbanik (Poland) confirm that they are willing to remain active.
New proposed members:
Emanuelle Gallo (France).
Her candidacy was approved by the EC.
Caterina Mele (Italy). Her candidacy was approved by the EC.
The Chair puts to the vote the new members. The Council unanimously accepts the new members.
Uncertain members:
Tom Jester (US) and Tony Walker (United Kingdom) did not state whether they want to continue to work with the Committee.
Theodore Prudon says that he will contact Tom Jester who is not known as an US member to see whether he wants to resign.
Catherine Cook proposes to do

the same with Tony Walker.
Noni Boyd will contact
Susan MacDonald.

10.3.3 Vote on nominated chair

The Chair states that Ola Wedebrunn (Denmark) is willing to continue his work as Chair of the Committee. His candidacy was approved by the EC.She puts his candidacy to the vote.
Council unanimously accepts Ola Wedebrunn

10.3.4 Vote on nominated secretary

The Chair says that Els Claessens (Belgium) is willing to continue. She was approved by the EC. She puts her candidacy to the vote.
Council accepts Els Claessens' candidacy, with one abstention.

10.3.5 Vote on Resolutions

10.3.6 Plan of Action for Technology 2000-2002

Ola Wedebrunn briefly explains the new plan of action for the Technology Committee. It includes a workshop in Vijpuri and two seminar themes. The first will deal with interior finishings and the second with physiology buildings.
(See detailed plan of action published p 15)
Maristella Casciato puts this plan of action to the vote.
The Council unanimously accepts the ISC/T 2002-2004 plan of action.

10.4 ISC / Urbanism & Landscape

10.4.1 Report 2000-2002

The Chair introduces the current situation. Paul Meurs and Rob Docter (The Netherlands), chair and secretary of the ISC/U & L, presented a written report stating that the present ISC/U&L has not performed well under their leadership. As a result, they have decided to resign as chair and secretary. Jan Birksted proposed to act as new chair and secretary and to redevelop the Committee.
The following members were reconsidered by the new Committee.
Alfredo Conti (Argentina),
Hannah Lewi (Australia),
Marco Aurélio Gomes (Brazil),
Ana Beatriz Galvão (Brazil)
Franco Panzini (Italy),
Lodewijk Baljon (The Netherlands),
Martine Boucher (France)
Rob Docter (The Netherlands),
Paul Meurs (The Netherlands),
Miles Glendinning (Scotland),
Jan Woudstra (United Kingdom)
Theodore Prudon stresses that he would like to add an US member and will inform the Committee.

10.4.2 Vote on nominated chair and secretary.

The Chair puts to the vote Jan Birksted as both new chair and new secretary of the Committee.
The Council unanimously accepts.

10.4.3 Plan of Action for Urbanism and Landscapes 2002-2004

Jan Birksted, who could not be present on the second day of the council meeting, had copies of his plan of action distributed to each member of the council meeting.
(See detailed plan of action published p 16)
The Chair puts to the vote his plan of action.
The Council unanimously accepts the ISC/U & L 2002-2004 plan of action.

(Change of Agenda order according to the discussion held during the opening of the council meeting: point 12 placed before point 10.5)

10.4.4. Criteria for evaluation of Working parties' performance 2002-2004

The Chair says that the new Executive Committee intends to reconsider the homework system and will propose new criteria for biannual evaluation of Working parties' performances.
Catherine Cooke mentions that the digital homework for the Register is not well organized and asks if it is possible to improve it.
Marieke Kuipers replies that she discussed this issue with the new Secretary. In October 2002 she will send an informational letter to each Wp who will have to choose between two or three types of software.
Wps will also receive a CD-ROM to complete. She again asks WPs not to send her digital images by E-mail.
Arie Sivan asks if it would be possible to also register information for the Education Committee ? to follow.
Panayotis Tournikiotis states that the Fall 2003 Seminar which will be held in Athens and which will concern Sport Buildings will also be considered as homework. (1 full fiches + 5 mini-fiches by 01-06-2003).
Aimée de Back stresses that the homework requires a website and that there are still only eleven Wps which have created websites.
Scott Roberston replies that there are many more websites now but that some Wps did not inform the secretariat about their existence.
The Chair warns that without any homework done, there will not be further council meetings participation for the Wp concerned.

10.5 ISC / Publications

10.5.1 Report 1998-2000

Hubert-Jan Henket introduces the work done by the ISC/P Committee that published two major publications: the "Modern Color Technology" and "Back from Utopia".

10.5.2 Conference Proceedings Brasília 2000

DOCOMOMO Brasil will present a proposal to edit, produce and distribute the 2000 Conference Proceedings shortly. The publication is expected by March 2003.

10.5.3 Vote on membership of the ISC/P

Hubert-Jan Henket and Wessel de Jonge have decided to step down as

members of the EC, and will resign form the ISC/P as consequencel.
Allen Cunningham (United Kingdom) has decided to resign as the secretary and as a member of the ISC/P.
Other members of the ISC/P are implicitly the chairpersons of other ISCs. Invited consultant members Dennis Sharp (United Kingdom) and Jorge Gazaneo (Argentina) are prepared to continue their membership of the ISC/Publications; approved by the EC. The chair does not propose to appoint additional consultants at this point.
The Chair, implicitly the new Committee chair, puts to the vote the reelection of Dennis Sharp and Jorge Gazaneo as consultants for the Editorial board.
The Council unanimously accepts.

10.5.4 Vote on nominated chair
The Chair puts to the vote her candidacy.
Council unanimously accepts.
10.5.5 Vote on nominated secretary
No proposals received.
10.5.6 Vote on Resolutions
10.5.7 Plan of Action for Publications 2002-2004
The Chair proposes to reconsider the structure of the Committee and transform it into an editorial Board composed of members of ISC/Chairs plus consultants.
She also stresses that she wishes to reinforce the image of DOCOMOMO International in constituting an editorial board for the Journal.
Council unanimously accepts her proposal.

10.6
Proposals for new ISCs
No proposals received.

11 COOPERATION WITH ICOMOS / WORLD HERITAGE CENTRE

11.1 Report 2000-2002
The Chair recognizes that thanks to new relationships created during the 2002 conference, the commitment of the WHC to DOCOMOMOs cause is encouraging and that "many doors are now opened".
Hubert-Jan Henket suggests that the intention is to avoid work coordinated through ICOMOS, but to act as a partner of the WHC directly.

11.2 Working program and procedures for 2002-2004
The Chair reminds the Council that a new publication project on "Twentieth Century Heritage@Risk" has been launched by ICOMOMOS and she invites all Wps to participate.

12 MISCELLANEOUS

12.1. New Working parties
The Chair announces that there are three countries which are well advanced in preparing their candidacies as new Wps.
- Mexico
- Morocco
- Algeria

She postpones the deadline to January 1, 2003 to allow Council votes by E-mail in Spring 2003.
Ola Wedebrunn adds that Iceland would also like to propose their candidacies.
Jean-Marc Basyn wishes to add Lebanon to this list.

Council decides that the deadline can be postponed until January 1, 2003 for Mexico, Morocco, Algeria and Iceland, as they are well-advenced with their candidacies. From Lebanon there is still insufficient information.

12.2. Advisory Board
The Chair announces that Jean-Louis Cohen did not accept his seat as member of the Advisory Board because of his demanding work schedule. His seat is now vacant. She invites candidates to send their applications before December 1, 2002.

With special thanks to Wessel de Jonge for his generous assistance in reviewing the minutes.

ADDENDA TO THE COUNCIL MEETING

According to what was agreed on point 12.2, two candidacies were submitted in time for the Advisory Board (2002-2004) and they were both accepted.
- Maija Kairamo
- Luis Hortet

International Specialist Commitee: plans of action 2002-2004

The ISC/Registers
1. Our first priority will be:
To set up an electronic database of the registers by involving all the WPs and the ISCs.
The database should be online on the DOCOMOMO website, or have a direct link to it. Therefore DOCOMOMO should have a webmaster and a database administrator in Paris.
2. We are convinced that the DOCOMOMO registers are decisively not closed, and should be annually updated. We will encourage the WPs to add 5 fiches per year, in the minimum fiche format, one of which should also be submitted in the full format. Submission of the fiches will be considered as homework related with the WP's voting power in future councils. These fiches should be closely related to the annual themes, in the even years to the conference themes and in the odd years to the International seminar theme organised by one or two WPs under the umbrella of the ISC/R. Seminar proceedings will have to be published in the form of books within the following year, supplemented by a slide show on CD-ROM. The ISC/R will assume the responsibility of drafting, assigning and supervising the bi-annual program upon WPs proposals. These seminars should preferably be organised together with the ISC/E during the academic season, with the obvious aim of facilitating the spread of knowledge.
Setting up an extensive bibliography will also be an important part of the documentation work; therefore, the editorial board should also be involved.

As a pilot experiment, the Greek Wp proposes itself to organise the first international seminar, on the theme: Body, Sport and the Modern Movement, to be held in Greece in October 2003.
Ten to fifteen papers, a third of which should be theoretical, and the two others case studies, will be presented in 3 sessions; there will also be invited speakers.
The relevant five fiches should be submitted ultimately before the 1st of June, consequently allowing the ISC/R's reviewing and editing in July. The newly documented items should also be presented on posters at the opening of the seminar (Athens, October 2003), and again at the opening of the Conference (New York, September 2004), together with the new posters for the 2003-2004 theme. Therefore, each WP will be annually requested to submit a poster.

The one full fiche will have an educational purpose (small monographs) containing information otherwise overlooked or difficult to find (this regards lesser known buildings worldwide and their present day functions). It will have to be published on the website's database.

The 2003-2004 theme for the fiches and posters is related to post-war modernism (the New York Conference theme). Future seminar themes could be, in arbitrary sequence:
- monuments of modern transport (e.g. airports)
- hospitals and sanatoriums
- office buildings (safeguarding corporate modernism)
- modern houses (safeguarding modern interiors and furniture)
- architects' houses (especially of the post-war period)
- shops (shop fronts and interiors)

WPs are invited to come up with suggestions and candidacies for the 2005 Registers International seminar theme. We have already received a joint candidacy from the US and Québec WPs.
In addition to the new fiches and posters submitted annually, the WPs will also be requested to send a bi-annual reports to the IS.

The ISC/Education and Theory

The meeting took place in presence of the following members:
Jean-Yves Andrieux
Arie Sivan, secretary
Mabel Scarone
Jean Marc Basyn
Kaisa Broner-Bauer
Absent: Daniel Bernstein, Ben Rebel and Penyo Stolarov
The committee regrets the resignation of the chairman Allen Cunningham and of Catherine Cook and wants to thank all the former members for their work.
Daniel Bernstein expressed his wish to continue with the committee.
The committee decided that the members who did not express their whish to continue and were not present for the conference should step down, namely Ben Rebel and Penyo Stolarov.
Arie Sivan informed that the committee could not report on any significant achievements during the last two years and suggested several points to be debated, which could become the basis for the committee's activities and goals of the next two years.
As a result of the discussion it was agreed:
- To ask Jean-Yves Andrieux to become the chair of the Committee, co-chaired by Arie Sivan
- To ask Jean Marc Basyn to be secretary of the committee and Kaisa Broner-Bauer the co-secretary.
- To present to the Council meeting with the following report:

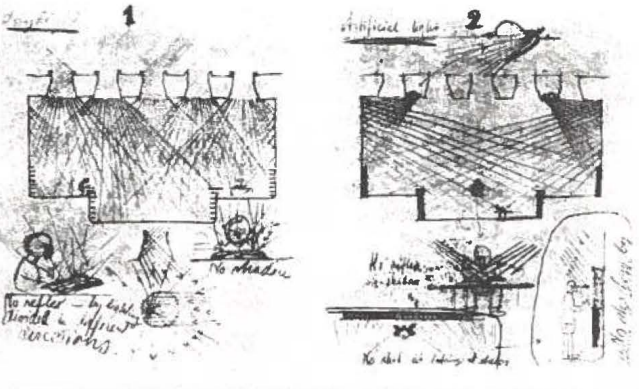
The Education and Theory Committee met on September 16th 2002. Few members were present, as the committee, for various reasons could not function during the last two years. Hence, the committee's first and foremost aim is to encourage new members to join the committee and to improve the relationship and coordination with the other DOCOMOMO committees. Given the situation, it was decided that the program to be led over the next two years has to be modest, simple and realistic.
There is a general agreement over the fact that the committee's first task should be to present DOCOMOMO with a guide of educational resources and facilities and, for that reason, we would like to set up a research network which would lead to a full survey and classification in categories parallel to the DOCOMOMO committees fields of interest, of libraries, bibliographies, thesis and university or other institutional programs dedicated to the Modern Movement. These references, organized according to guidelines which will be defined by the committee, will have to be available on each of the national DOCOMOMO websites, which should be helpful to students, teachers and professionals - in providing them with an international overview of methods, resources and possibilities of exchange. The requested data should be gathered in the next six months and the final production be available during the next General Conference. If possible, all information and bibliographies should be updated and edited every two years on paper and/or electronically.
Furthermore, we would like to organize a little think tank of about 10 to 12 people, including the members of the committee and a few other contributors. This group, with DOCOMOMO International's support, could meet in Paris or, if possible, in Israel in February 2004, in order to outline the goals of a more theoretical contribution: a kind of charter for an educational program on the Modern Movement and on the preservation of its works, bearing in mind, always, the considerable differences between the member countries which DOCOMOMO, as a rule, considers as essential. The ultimate purpose of the charter is the creation of an international DOCOMOMO Workshop on Education, which would ideally be coordinated with the UNESCO and other organizations dealing with preservation.

The ISC/Technology

1 - *Case Study*
Vijpuri Library construction for sensations

The DOCOMOMO ISC/T is currently looking into the possibility of organizing a seminar at the legendary Alvar Aalto Library

(designed by the architect in 1935) located in Vyborg, Russia, on the Finland Bay. It would be an opportunity to hold a seminar on the location itself of a case study. The aim of this seminar would be to expose the theoretical and practical issues that are encountered during the restoration of modern movement structures.
At present, the Technology Committee is establishing contacts and working on fundraising and other possibilities to set up the seminar, scheduled to be carried out for two days in mid September 2003.
Topics of the seminar will focus on case studies and subjects in relation with the Vyborg library issues:
- the difficulty / complexity of managing a DOCOMO restoration case
- Construction physics
- light and acoustics
- ... and more
But the seminar should also, in addition to the hands-on experiences which the seminar's *in situ* location will allow, address general topics as well.
DOCOMOMO members are with this announcement requested to submit suggestions for possible themes and abstracts to be discussed / studied during the 7th DOCOMOMO Technology Seminar.



2- *Stone of the Moderns*
Sixth ISC/T seminar held in Rome
The Sixth DOCOMOMO technology dossier will be published by DOCOMOMO Italy. It contains both the papers presented in Rome and additional texts on the topic of stone cladding. It can be ordered from DOCOMOMO International.

The ISC/Urbanism and Landscape
For 2002-2004, the International Specialist Committee on Urbanism and Landscape will renew its work and revitalize its membership.
To achieve this, it is in the process of:
- Clarifying its agenda
- Identifying the roles and responsibilities of its members
- Defining the tasks of its members

Clarifying the agenda
In line with contemporary developments and with the ideals of the Modern Movement, the Committee will be resolutely multidisciplinary, encompassing urbanism and landscape but also considering their relationship to related fields such as the fine arts æ which were a key Modern Movement concern, and which once more today play an increasingly significant social role in urbanism and landscape design.
In 2002-2004, the Committee will in its activities emphasise three concerns:
- Sustainable preservation of urban ensembles and landscapes, namely, the balance between preservation and future usage
- Research
- Education

Identifying members' roles and responsibilities
Members of the Committee will assume specific roles and responsibilities within two areas, clearly defined as separate but interconnected:
- The first area of activity is the Documentation and Conservation of Modern Movement urban ensembles and landscape, which will require the ongoing collaboration and continued discussion with Registers and with national Working Parties.
- The second area of activity is the development of a Program of Events analyzing the significance of Modern Movement ideas on contemporary urbanism and landscape.
The specific areas of responsibility, which individual members of the Committee will undertake according to their field of interest and expertise, are in the process of being finalized. To date, the following have been identified:
- Documentation methodologies for urban ensembles and their implications for conservation in different national contexts (MG)
- Documentation methodologies for landscapes and their implications for conservation in different national contexts (JW and FP)
- Documentation of design history and theory and their implications for sustainable conservation (PM, JB)
- Urban conservation in the light of urban policy and management (RD)
- Relations of urbanism and landscape to the fine art (MB)
The Committee will therefore operate as a group of individuals with specific, and complementary areas of expertise.

Identifying members' tasks
Members remaining on the Committee will commit themselves to specific tasks, which are in the process of being identified. These will take into account the three principal concerns of research, education and sustainability.
To date, these tasks include:
- Developing an annual international seminar or workshop gathering several universities and DOCOMOMO International members (JB)
- Defining and implementing a funded research project under the aegis of ISC U+L (JB, RD, MG)

Membership of the ISC U+L
During 2002-2004, in order to respond resourcefully and productively to developments arising from this agenda and programme of activities, I will work on gaining support and funds for the Committee from my institution, the Leicester School of Architecture, which has a long tradition of active involvement in the field of conservation through research and education (thanks to a postgraduate Conservation MA and a significant number of PHD students). The Committee suggests co-opting a new member: Martine Bouchier (France) [architect, PhD, École d'architecture at Lille and at Paris-Malaquais, Chargée d'Étude at the Bureau de la recherche architecturale et urbaine at the Direction de l'architecture et du Patrimoine] whose work concerns the relations between landscape, urban architecture and the visual arts.

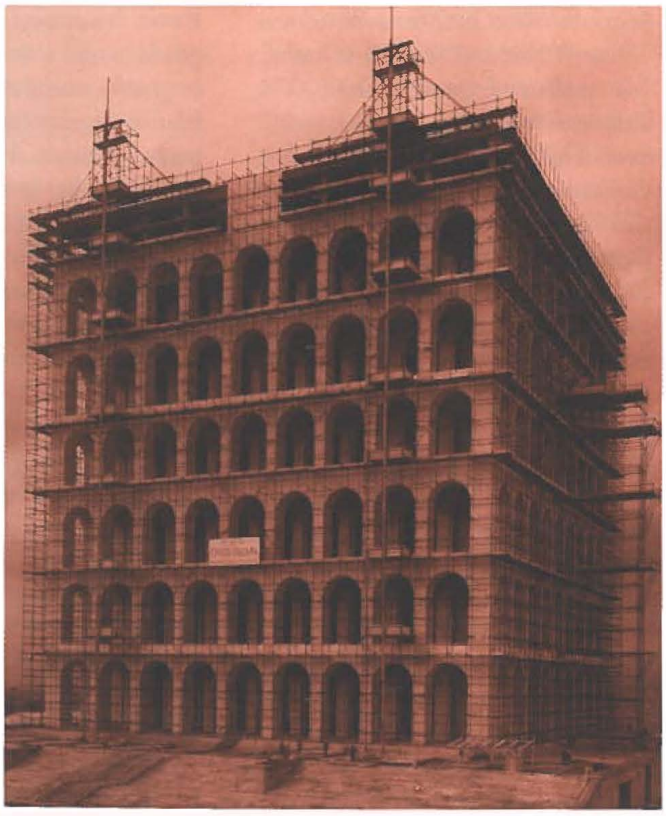
CHANGES IN WORKING-PARTIES: A NEW SOUTH EAST CHAPTER FOR DOCOMOMO US

THE INTERNATIONAL Symposium "The Bauhaus Legacy: Myth, Reality and Reevaluation" was held October 24-26, 2002 at the Southern Polytechnic State University School of Architecture located just North of Atlanta, GA. Some 35 participants had come from all over the United States. Present were also scholars from Australia, China and Germany. The symposium venue was the new award winning building designed by Heary International. An exhibit on the Saving and Restoration of Mies' Villa Tugendhat in Brno was on display at the school gallery. Appropriately, at the occasion of the symposium devoted to the Bauhaus, the center of pedagogy of Modern Movement, I, along with the University of Tennessee Assistant professor Barbara Klinkhammer and the SPSU Professors Tony Rizzuto and Bill Carpenter announced the formation of the chapter. The DOCOMOMO US President Theodore Prudon has been notified and pleased that there is that much interest and welcomed the South East Chapter to the organization. The South East United States has a number of MOMO buildings and sites which need to be documented and saved from destruction. We welcome comments and suggestions and interested parties in joining the chapter.

PETER LIZON, *FAIA, University of Tennessee (Address in last section of Journal)*

REPORT FROM DOCOMOMO ITALY

At the very beginning of 2000, DOCOMOMO Italia and the Eur Limited, the semi-private firm which manages the EUR, have initiated a collaboration with the mutual aim of developing research projects focused on the re-discovery of the history of Rome's E42 World Exhibition by analyzing the buildings which represent the most prestigious achievements of that notorious event.



Photography **Nassi**, Archivio centraledello Stato, Rome

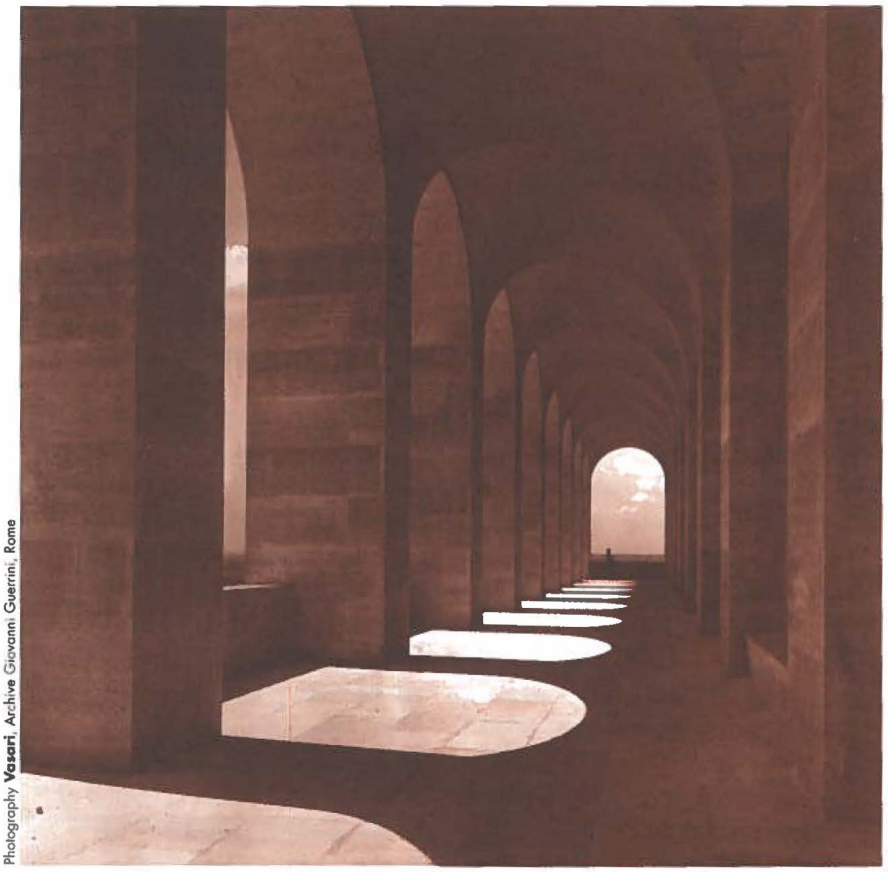
fig. 1. **The Palazzo della Civiltà Italiana under construction** (July 1939)

For the exhibition *"E 42. L'Esposizione universale di Roma. Utopia e scenario del regime"*, held in Rome in 1987, an interdisciplinary group of scholars had started digging into tons of unpublished documents, drawings, official reports and also Mussolini's *carte segrete* with the objective of revealing the unknown history of the many projects related to the exhibition.

The two-volume catalogue, *E42 Utopia e scenario del regime*, which came out with the exhibition[1] is still the most useful tool for any research in the field and remains the best documentary work on E42, with essays on fascist Italy's history and the political protagonists of the exhibition, on the town-planning of the Third Rome, on the architects and artists who collaborated to the projects, and on the hopes raised

by, and the failure of, the whole manifestation.
The first joint research project of DOCOMOMO Italia and Eur Limited focused on piecing together the events that led to the building of the Palazzo della Civiltà Italiana (Palace of Italian Civilization), ironically labeled "Colosseo Quadrato". Designed by Giovanni Guerrini, Ernesto B. Lapadula and Mario Romano, the project won the first award of the competition launched in 1937; its construction lasted from late spring 1938 to the end of May 1943 *(fig. 1)*.

Icon of the E42 World Exhibition, the Palace is deeply rooted in the urban image of post-war Rome. At the new millenium's dawn, it confirms its role more convincingly than any other modern building in Rome; for those who reach Rome from the international airport the Palace signals the veritable access to the capital; fully encapsulated in its powerful classical appearance, it dominates the Eur district, the new financial area of the contemporary city.
The research project on the Palazzo della Civiltà Italiana is part of a much larger program of the Eur Limited, which intends on increasing awareness and knowledge of the architectural value of the E42 exhibition. The core of the program is to widen the architectural records of the buildings, including their material and constructive history and their use throughout the years. It is not by chance that the first building to be analyzed is the Palazzo della Civiltà Italiana, both physically and iconographically very prominent, but rather scarcely documented. The research report produced by DOCOMOMO Italia was the first attempt to reconnect the elements of a complex mosaic, up till now scattered among many public archives, and even some private collections. The sixty years of existence of the building allow to further understand the history of the Palace, to grasp the hidden potentialities of its image and to imagine its role in the future.
An additional aim of the project was to elaborate the reference



Photography **Vasari**, Archive Giovanni Guerrini, Rome

fig. 2. **The loggias' promenade** (1942).

material to be summarized in a booklet prepared for the international competition dedicated to the transformation of the Palazzo into a "Museo dell'Audiovisio" (Museum for Audiovisual Arts). The initial step of the competition was planned to be the restoration of the building, under the supervision of the State Agency for Conservation. Both are still in progress.

The results of the archival and historical research are now available in print, *Il Palazzo della Civiltà Italiana. Architettura e Costruzione del Colosseo Quadrato (figs. 2/3)*.[2]
The volume, richly illustrated with period photographs and archival documents, includes essays by the editors, and by Rosalia Vittorini, Cristiana Marcosano Dell'Erba, Rinaldo Capomolla, Stefania Mornati, Giorgio Muratore and Andrea Riecken.
Throughout its 250 pages the volume discloses the plurality of approaches - history, town-planning, architecture, construction, materials, arts - which define this monument. Some of the period photographs offer very unexpected views of the building and its environment:

fig. 3. **The entrance atrium at the first floor.** All marble cladding is completed (1940).

the view from the high podium shows the peaceful sequence of gardens and fountains, which originally articulated the urban fabric in front of the Palazzo; some photos illustrate the metaphysical spatial quality of the large *saloni*, almost in levitation between inside and outside; others allow to appreciate the sophisticated dialogue between architecture and landscape, a landscape partly framed by the high-arched loggias and totally available to the eye at the roof terrace level, with the gift of a 360° degree view of the Roman *campagna*, from the sea to the hills.

VIRGINIA BERNARDINI *is a member of DOCOMOMO Italy*

NOTES
1 Published by Marsilio, Venice, 1987
2 Edited by Maristella Casciato and Sergio Poretti, published by Federico Motta Editore, Milan, 2002.

NEWS FROM DOCOMOMO JAPAN
REGISTERING 100 MODERN ARCHITECTURE BUILDINGS

AS ONE of its new missions, DOCOMOMO Japan has decided to register 100 existing buildings of the Modern Movement throughout Japan, adding another 80 to those already listed as DOCOMOMO Japan's Selection 20. We have been following the principles that we understood were the framework for DOCOMOMO Registration 2000, namely, that the buildings be selected by evaluation on technical, aesthetic and social invention.
As we were adding to our listing, we specified the characteristics of modern architecture in Japan on historical and structural criteria - namely, among others, that they were completed between the 1920s and the 1970s, and also, when appropriate, including wooden structures. The selecting procedure urged us to question ourselves on the definition of the Modern Movement specifically in Japan. Since almost all the modern buildings in Japan are hybrid in a sense, it is a thin line to draw between "utterly" modern and "relatively" modern. However, the selection process will be over by the end of spring 2003. We will set up a database soon after.
The number 100 in itself is only a milestone on our way: we obviously intend to keep on registering modern architecture buildings beyond that number. Registration may help preservation, and even reconstruction, in case of a major earthquake, such as the Hanshin-Awaji earthquake in 1995, during which some local governments gave repair funds to damaged buildings if they were listed, as being on such list meant professional acknowledgement of a building's historical value. Furthermore, without any relation to these disasters, some terrible destructions of modern architecture, especially of modern apartments like Dojunkai's (which we listed in 2000)[1] have recently occurred. Following DOCOMOMO's recommendation to act as the watchdog of historically important buildings facing potential demolition, we have submitted an appeal to the owner asking to save its historical value when a demolition project was announced, although we could not succeed in changing the course of action.
Yet, there are several hopeful actions pending, such as the conservation movement of the Kamakura Museum of Modern Art, designed by Junzo Sakakura and completed in 1951. It was also listed in DOCOMOMO Japan's Selection 20 and the exhibition *the DOCOMOMO Japan Selection 20* was first held there in 2000. This building epitomizes Sakakura's post-war architecture, as it shows how he successfully - starting with his design of the Japanese Pavilion in Paris in 1937 - incorporated modernism to traditional Japanese architecture.
The volunteer group called "Kinbi-Hyakunen-no-Kai" (literally the Group to keep Kamakura MoMA for another 100 years) was established in November 2001.
Many architects, art historians, and museum curators as well as ordinary citizens have already joined the group and organized a symposium, a museum-visiting program, a walking tour in Kamakura, and most importantly, submitted to the authorities an appeal for preservation.
They publish a newsletter, and have set up a homepage on the Web (www.kinbi100.net). Helping to preserve a post-war building is not, however, a very popular activity in Japan.
DOCOMOMO Japan has also asked architecture students or other representatives of the younger generation to join the DOCOMOMO Friends, the purpose of which is educational (its members could, for instance, attend several events such as visiting modern architecture buildings or an architect's office). It is important for us to succeed in preserving and promoting modern architecture not only physically but also spiritually.

KENJI WATANABE *is Vice-Secretary of DOCOMOMO Japan*

1 See Professor Fujioka's report in the DOCOMOMO Journal 27

Photographies, K.Kanematsu

left: **Kamakura** Museum of Modern Art

right: **Guided tour** by curator

THE STUDY AND PRESERVATION OF MODERN ARCHITECTURE AT THE ÉCOLE DE DESIGN OF THE UNIVERSITÉ DU QUÉBEC À MONTRÉAL

THE *École de design* of the *Université de Québec à Montréal* (UQAM) has long been involved in the study and preservation of modern architecture. In 1989, France Vanlaethem, a professor in the *École de design*, was in the forefront of the first campaign launched in Quebec for the protection of a 20th-century architectural realization. The battle to conserve the integrity of Westmount Square (1964-1967), a large urban complex designed by Mies van der Rohe, laid the groundwork for the creation of Docomomo Québec. Since the organization's foundation in 1993, the *École de design* of UQAM has been host to the secretary and the meetings of the association.

In 1998, the two institutions worked together on the organization of the conference "Connaître et protéger l'architecture moderne / Studying and Protecting Modern Architecture." Since 1999, two series of public lectures on Modern architecture organized by Docomomo Québec were presented at the *École de design*. This relationship was formalized in June 2001, when Docomomo Québec and UQAM signed a five-year partnership agreement.
The goal of this partnership is to increase understanding of both modern architecture and its preservation and to diffuse this knowledge to a broader audience.

A Graduate Degree in the Study and Preservation of Modern Architecture

To answer the increasing need for specialists in the field of modern architectural preservation, in June 2000, UQAM officially established the Programme d'études supérieures spécialisées (DESS) en *Connaissance et sauvegarde de l'architecture moderne*, a graduate program specialized in the study and preservation of modern architecture. The program, which welcomed its first students in September 2001, is geared toward working professionals and graduates in architecture, design, art history and engineering who want to acquire the competence to intervene in a culturally responsive way in the preservation of modern interiors, buildings, groups of buildings, and sites.

Totaling 30 credits, the program can be taken full time over a year or part time over two years.
The program is structured around three core areas of study: history, theory, and technique. Of the 30 credits, 18 are devoted to the core program, 9 are for research and the final thesis, and 3 are electives. The final thesis project may take one of three forms: a preservation assessment; an architectural project on the restoration/transformation of a modern building, a group of buildings, or an interior; or a critical reflection on the preservation of modern architecture. Direct observation of buildings and projects is a central part of the teaching approach, and a number of visits to buildings and urban complexes have so far been organized in Montréal, Quebec City and Ottawa. This approach is continued through a bi-annual study trip, a 3-credit course that is part of the curriculum. The destination chosen for the first trip was the Netherlands. In May 2002, a group of 8 participants spent 11 days studying the country's rich modern architectural heritage with a special emphasis on modern buildings that have been rehabilitated or restored.
In addition to the teaching resources of the *École de design* and the university more generally, the program makes use of expertise within the local community.
The program is also enriched by the participation of international architects and specialists in the field of preservation. Since the launch of the program in Fall 2001, we have welcomed several guests, who, in addition to presenting in our Public Lecture Series, have participated in the teaching activities of the program. They include: Bernard Toulier, (Ministère de la Culture et de la Communication, Paris); Wessel de Jonge (Architect / DOCOMOMO, Netherlands); Pier Giovanni Bardelli (Politecnico di Torino); Chris Wood (English Heritage, London); José Oubrerie (Ohio State University, Columbus); Paolo Scrivano (University of Toronto); and Elain Harwood (English Heritage, London).

Research Laboratory on Modern Architecture and Design

The study program is enriched by scholarly activities conducted within the Research Laboratory on Modern Architecture and Design. Founded by Réjean Legault and France Vanlaethem, this research group brings together professors and doctoral candidates working on various aspects of architectural modernity. One of several ongoing research projects, "Montréal-Moderne 1945-1976," is a four-year project that focuses on the urban and architectural modernization of downtown Montreal. The activities of the research laboratory have been subsidized by major grants from institutions including the Social Science Research Council of Canada (SSRCHC), the Canada Arts Council (CAC), and the Fonds québécois de la recherche sur la société et la culture (FQRSC).

Studying in Montréal

The *École de design* is housed in a new pavilion designed by renowned Canadian architect Dan S. Hanganu, and is located on the main campus of the university in the heart of the *Quartier Latin*, one of Montréal's liveliest downtown neighborhoods.
Developed at the intersection of cultural exchange between Europe and America, Montréal is a fascinating modern city with a rich postwar architectural heritage. Students in the program have access to the libraries and archives of four universities, several museums, and the Canadian Centre for Architecture, which together make Montréal a privileged place for the study of modern architecture.
At UQAM, a well recognized institution of higher education, courses are given in French. Students in the program are required to pay tuition fees; a special rate applies for students from France and Latin America due to special agreements with these countries.

RÉJEAN LEGAULT *is a member of DOCOMOMO Quebec.*

FOR MORE INFORMATION
about UQAM,
consult the University website:
http://www.uqam.ca
To contact us : Réjean Legault, Director
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Montréal (Québec) H3C 3P8
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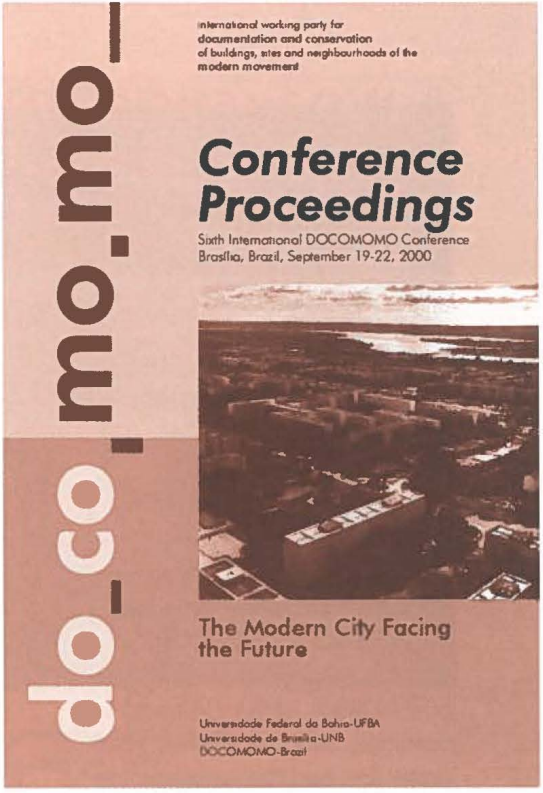
Montréal (Québec) H2X 3X9
Fax : 514 - 987 7717

DOCOMOMO BRAZIL PUBLICATION OF THE SIXTH CONFERENCE

THE BRAZILIAN WORKING PARTY announces that the proceedings of the Sixth International DOCOMOMO Conference will be available by March 2003.
The publication of the proceedings represents an important achievement because of the numerous contributions it includes and of the complexity of the studied themes. The future of the city embodies new challenges that question some of the principles of the Modern Movement. The Brasilia Conference took these questions as point of departure. The speakers were invited to consider the conflicts between city plans and reality as well as the tensions between urban forms and their political impact. Social and economic issues were also part of the debate. The specific case of Brasilia was discussed for its relevance in the global discourse of the city of the twentieth century. All these aspects as well as those related to the aesthetic dimension of the contemporary city are included in the proceedings.



BRAZILIAN NEWS

DOCOMOMO Regional meeting and Seminar in Taubaté.

In November 6 to 9, 2002 he Vale do Paraíba/Alto do Tietê DOCOMOMO Group organized the II São Paulo State DOCOMOMO Meeting and the II Vale do Paraíba/ Alto do Tietê DOCOMOMO Group Seminar in Taubaté city, sponsored by the University of Taubaté. Following the first event in 1998 at Rino Levi's former Olivo Gomes House at the Modernist Park in São José dos Campos city, the second meeting was held at the former Companhia Taubaté Industrial (CTI), an ensemble of textile factories built in 1938, now partially recycled as the Department of Architecture and Urbanism of the University of Taubaté.
The 29 papers presented and the main discussion focused on the theme "Modern and Modernisms in São Paulo" and the program included a homage session to the centennial of Lucio Costa (1902-2002) and a one-day tour the Clube dos 500, an early 1950s project by Oscar Niemeyer in the city of Guaratinguetá. A report on the meeting by Ademir Pereira dos Santos (the coordinator of the very active Vale do Paraíba/Alto do Tietê group) can be read in: http://www.vitruvius.com.br/arquitextos/arq031/arq031_00.asp.

Bibliography on Brazilian Modern Architecture

The Department of Architecture and Urbanism of the School of Engineering of São Carlos, University of São Paulo, published *Brasília e Arquitetura Moderna Brasileira: Bibliografia Selecionada (Brasília and Modern Architecture in Brazil: a Selected Bibliography)*, compiled by Alberto Xavier. This is the first edition of a report prepared in 1977 by Xavier and up to now available only at the Library of the Faculty of Architecture and Urbanism of the University of São Paulo. It was a survey on many international and Brazilian libraries and handbooks, gathering references and quotations on Brazilian modern architecture from the 1930s to the 1970s.
Xavier, Alberto, *Brasília e arquitetura moderna brasileira: bibliografia selecionada*, São Carlos: EESC/USP, 2002. 44 pp. ISBN 85-85205-38-5.
Ordering: docomomo@sc.usp.br

Novelties by E-mail

DOCOMOMO Brazil issues weekly by the Internet both the *DOCOMOMO Brazil Library* and the *DOCO-MEMOS*. These are newsletters on new publications or books on MOMO subjects published in Brazil or elsewhere in Latin America and novelties (as those from DOCOMOMO International, UNESCO's World Heritage Centre, national and international seminars, meetings and conferences) addressed to more than 1.200 people in Brazil, Latin America, Spain and Portugal. From May 2002 to January 2003, 42 editions of DOMOMOMO Brazil Library and 43 editions of *DOCO-MEMOS* were issued.

Documentary on Lucio Costa

In March 2003 the director Geraldo Motta premiered in Rio the Janeiro the long-footage documentary *O Risco – Lucio Costa e a Utopia Moderna (Lucio Costa and the Modern Utopia*; "risco", in Portuguese, means both "risk"and "design"). It is part of the centennial commemoration of the creator of Brasilia and one of the most important architects of the 20th century.

Report by **HUGO SEGAWA**, *Brazilian DOCOMOMO Working Party Coordinator*

A WORKSHOP ON MODERN HERITAGE IN ASIA, CHANDIGARH, INDIA

DATE: FEBRUARY 24-26, 2003
Organized by the UNESCO's World Heritage Centre, the Chandigarh Administration, ICOMOS India and the Modern Asian Architecture Network (mAAN).

Background & Objectives

In the beginning of 2001, UNESCO's World Heritage Centre started a joint programme with ICOMOS for the identification, documentation and promotion of the built heritage of the 19th and 20th centuries, because a weak legal protection and low appreciation among the general public make this heritage particularly vulnerable.
With only 24 properties related to 19th or 20th century built heritage, out of 730 (as per June 2002), the concept of Modern Heritage is currently not well-represented in the World Heritage list. (See Appendix)
Moreover, an analysis of the justifications shows that the majority of these 24 properties are not always identified as Modern Heritage; they are often listed for other reasons under different categories.
In order to promote inscription of this category, study and evaluation of possibilities, selection of properties and the establishment of criteria are needed, for which two meetings were held at UNESCO Headquarters in February and October 2001. As a general outcome, it was agreed that currently there is a clear lack of understanding of the character and value of Modern Heritage; therefore, appropriate methodologies for the assessment and selection of this type of heritage need to be developed, providing for balanced thematic and geographical representation; as well as to advise States Parties and the general public on the importance of its protection and conservation.
The meeting in India is one of three regional meetings (Mexico is scheduled for December 2002; Eritrea for the 2nd half of 2003) proposed as a follow-up to build upon this consensus.
Since many initiatives have been undertaken lately to organize much needed academic discourses about the preservation of 20th century heritage, in particular by ICOMOS Member States (among which are Australia, Finland, The Netherlands, Canada, Argentina, Morocco, Japan), the UNESCO World Heritage Centre wishes to utilize the three regional meetings specifically for the development and testing of tools, such as comparative studies into properties and sites and the gathering of workshop-files to facilitate inductive exercises and to test cultural approaches to criteria. Complementary to the academic studies and discourses, the results of these practical exercises will be used as advice to States Parties and disseminated to the general public for information and awareness of the buildings.

Appendix

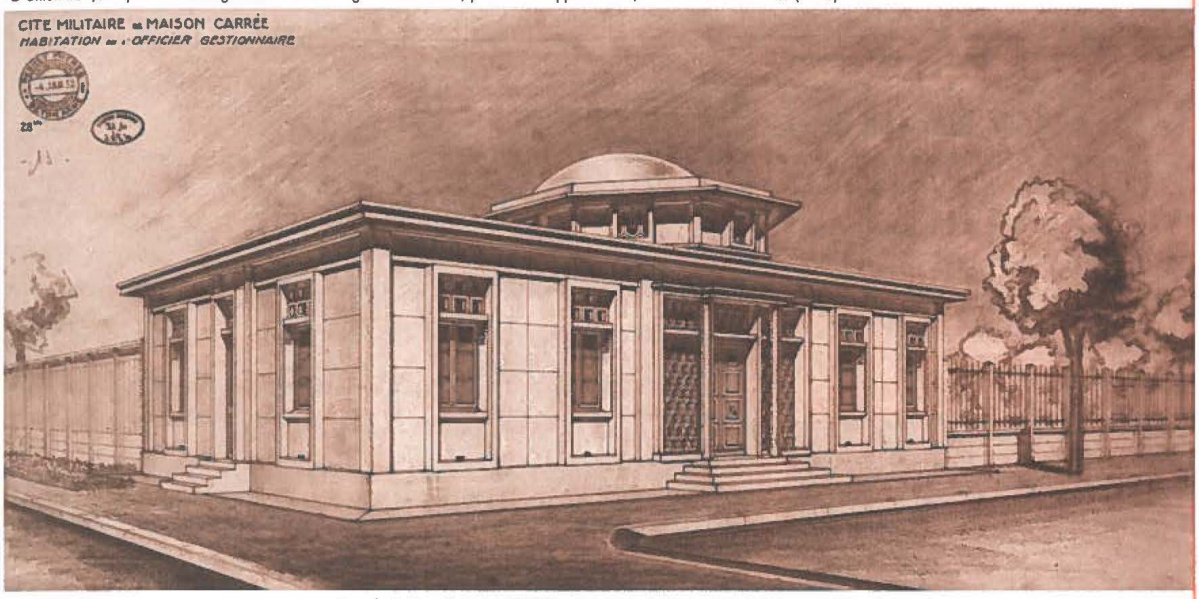
Contents of India Meeting on Modern Heritage

4 presentations
1- "The Heritage of Modernity in Asia - Issues of Identity, Significance and Conservation": key-note address by mAAN (Muramatsu, Zenno & Widodo)
2 - "Asian Modernity versus Tropical Architecture" by Jiat Hwee Chang, National University of Singapore
3 - "Proposal for a Methodology for Assessment of Properties and Sites of Modern Heritage in Asia - The Case of China's Search for a Regional Style" by Guohua JI, Nanjing University, People's Republic of China
4 - "Characteristics of Modern Asian Architecture - Criteria for Identification and Valuation" by Madhura Prematilleke, University of Moratuwa, Sri Lanka

11 workshop-files of Modern Heritage in Asia to discuss conservation and comparative study
- 2 files on India, of which one will be Chandigarh; prepared by Prof. Joshi and Mr. Shah.
- 2 files on China, of which one will be Shanghai's Bund; to be prepared by Prof. Chang and Prof. Wu.
- 2 files on Japan, to be prepared by Prof. Muramatsu and Mr. Zenno.
- 3 files on South-East Asia, being Bandung (Indonesia) and Melaka (Malaysia), under supervision of Dr. Widodo; a file on Sri Lanka could be added (to be prepared by Mr. Prematilleke and Mr. Kuruppu).
- 2 files on Australia/Pacific region

TWENTIETH-CENTURY HERITAGE AT THE TIZI-OUZOU UNIVERSITY, ALGERIA

A NEW RESEARCH team, co-ordinated by Boussad Aiche, department of architecture of the Tizi-Ouzou University, has recently joined the "Euromed Heritage II, shared legacies" program, which has been granted subsidies by the European Community.
The "Euromed Heritage" program, which aims at the preservation and development of the Euro-Mediterranean cultural heritage, has been operational since September 1998.
The program's first phase (Euromed Heritage I), presently in its mid-term, consists of implementing a total of 16 regional projects, resulting from subsidy contracts, corresponding to an amount of euros 17.1 million under the MEDA Program.
In accordance with the Bologna Declaration, adopted by the Ministers of Culture of the 27 Euro-Mediterranean partners in April 1996, these concrete projects cover 4 fields:
1 - Highlighting heritage by establishing an inventory and



Fonds Frères Perret, 1932.
Cité militaire de maison-Carrée, Lodging for the administrative officer, Algiers
by Auguste Gustave Perret: elevation in perspective, January 4, 1932.
535 AP 45/6, n°CNAM 31.10.10. State: unbuilt

Algiers: urban **landscape** and **architecture**

AN INSTITUT FRANÇAIS D'ARCHITECTURE EXHIBITION

FROM JUNE TO SEPTEMBER 2003

Showed in the galleries of the Porte Dorée's Palace, the exhibition outlines the Algerian capital's major cycles of transformation and modernization, from the Ottoman period's last decades up to now.
Archives, original drawings, maps, prints, photographs and models gathered from French and Algerian collections, introduce the Casbah's and the European city's successive faces.
All three hundred documents attest of the meeting between an outstanding setting, state policies and architects' approaches.
Layers upon layers of projects have shaped Algiers' landscape, from the first military gestures to Perret's, Le Corbusier's, Roland Simounet's, Fernand Pouillon's or Oscar Niemeyer's contributions, built or not.

After Paris, the exhibition will be showed in Algiers and Montreal.

A 400 page, illustrated publication will be issued for the exhibition

Curators:
Jean-Louis Cohen, director of the Institut français d'architecture, Paris;
Youcef Kanoun, head of studies at the École polytechnique d'architecture et d'urbanisme, Algiers.

promoting networking of historical sites and cultural institutions, and by promoting high-quality cultural tourism;
2 - Heritage policy support (institutional support and legislation) through exchange of experiences, and transfers of know-how and technical assistance;
3 - Knowledge of heritage through the dissemination of information, the use of multimedia techniques, awareness programs with the public and decision-makers, as well as an inventory of Mediterranean heritage, know-how, methodology and techniques;
4 - Training in skills related to heritage and cultural activities.
This Mediterranean collaboration, thanks to a shared network of knowledge, abilities, skills, experiences and funds, aims at promoting and improving the future of this heritage. In that respect, its goals are very close to those promoted by DOCOMOMO.

Marcel Breuer Landmark Threatened **in New Haven**, Connecticut

Picture New Haven, Connecticut in the 1960s. The prosperity of the previous decade generated federal funds to correct blighted cities. New Haven's Mayor, Richard C. Lee was dedicated to urban renewal and his vision gave top quality modern architecture a key role in redevelopment.

F. PETER **SWANSON**
AND ROBERT **GATJE**

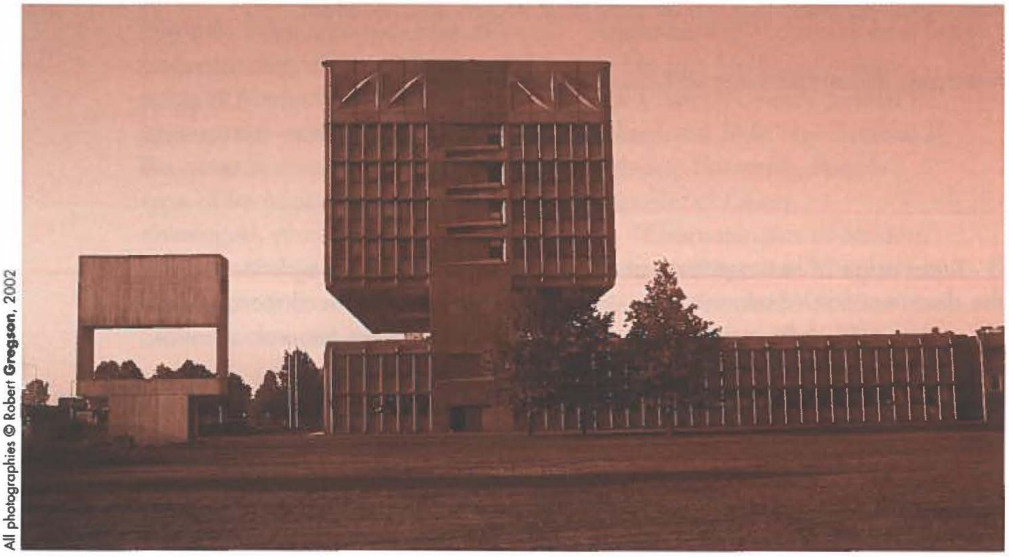
A VOLLEY of building projects by an enlightened Yale University added to this incubator of remarkable examples of modernism. What materialized included an elementary school and a rare manuscript library by Skidmore, Owings and Merrill; high school, the Knights of Columbus Headquarters and the New Haven Coliseum by Roche-Dinkaloo; a corporate headquarters for Armstrong Rubber and a Laboratory of Engineering by Marcel Breuer; a municipal parking garage, high-rise apartments, the Yale School of Art and Architecture and a Forestry Laboratory by Paul Rudolph; two residential colleges and an ice rink by Eero Saarinen; a University Art Gallery by Louis Kahn; three Laboratories for Epidemiology, Biology and Geology by Phillip Johnson and many fine buildings by local architects including Douglas Orr, de Cossy, Winder and King-lui Wu.

FORTY YEARS LATER the shift of public priorities, economic desires and what seems like a bankruptcy of taste threatens these monuments. Many of them have faced a change in their function or inevitable deterioration by the elements. Gratefully most have endured. The Art and Architecture School, the two residential colleges and the Temple Street Garage have recently enjoyed careful restoration. The elementary school was thoughtfully enlarged and the high school has been adapted to the Yale School of Nursing.

NOW BREUER'S Armstrong Rubber building is facing partial or total demolition. Built in 1968 at the junction of Interstates 91 and 95 the site served as a visual gateway to the city. It was a critical location in the eyes of Mayor Lee and he insisted on a monumental building, designed by a distinguished architect. When pressed, he nominated Marcel Breuer. In following the mayor's suggestion, Armstrong received an engineering and esthetic masterpiece for their facility. Using great cantilevered trusses, Breuer hung four stories of offices above a two-story research and development block that formed a horizontal plinth *(fig. 1)*. The whole was then clad in an array of deep sculptural pre-cast panels that further delineated the building's function in their form *(fig. 2)*. The surface remains in perfect condition *(fig. 3)*. The four stairwells derive from the great stairs of his Whitney Museum of American Art.

ARMSTRONG transferred ownership to Pirelli who continued to utilize the building until the late 1990s when the city decided to place a large-scale mall and hoped to locate it at this site. Fearing demolition of the structure, New Haven's Alliance for Architecture were able to list it on Connecticut's Register of Historic Places. While this does not prohibit destruction, it raised sufficient awareness to pressure the developers to incorporate it in their plan. Economic support for the mall dissolved leaving the building empty. This year the Swedish design retailer, IKEA has identified it as a valuable site and is in negotiation for purchase. On first pass, this seemed a perfect marriage of a prosperous and sensitive owner to a landmark that is part of a design legacy that marks their own commercial success. Unfortunately they propose a 300,000 square foot facility, which together with its surface parking requirements dictates the

Fig. 1. **Office tower** floats over the base



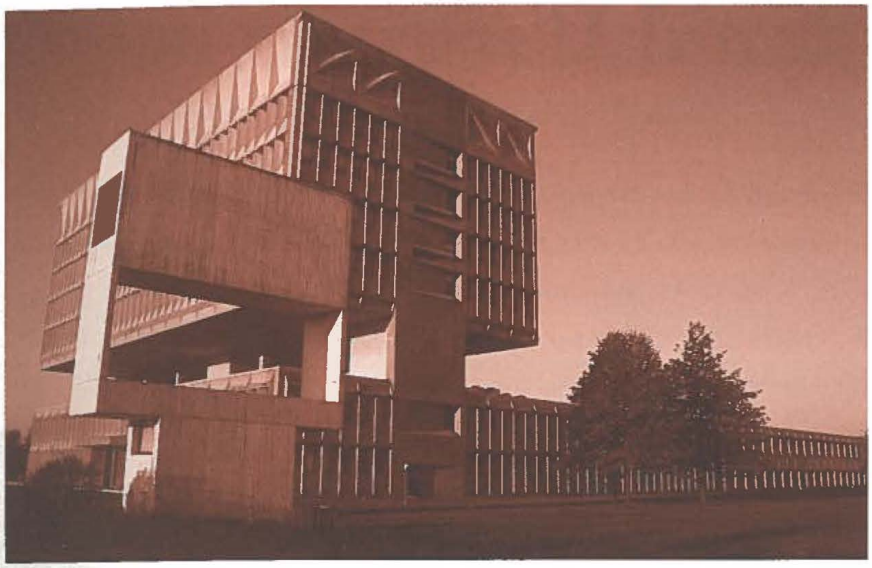


Fig. 2. **Sign structure echoes** suspended tower

destruction of most of the ground floors of the building leaving an awkward remnant to stand as a weak reminder of the original. Furthermore, they have no formal plans to market the office space. All indications are that after a year or two of remaining vacant they would have reasonable grounds to proceed with total demolition.

LOCAL EFFORTS to raise awareness continue. Robert Gatje, Breuer's former partner and co-architect of the building, has suggested that IKEA is simply trying to force too big a building onto the available site and that a modest reduction in their commercial hopes could save Armstrong and win praise for IKEA. Face to face discussions with their real estate representative and their architects elicited promises of reconsideration but no formal reaction to date. While Swedish management has not commented, it would seem that IKEA's current plans miss a unique opportunity to adapt this valuable site and its elegant occupant to their needs rather than constructing another formula store. Such a design could be a win-win solution.

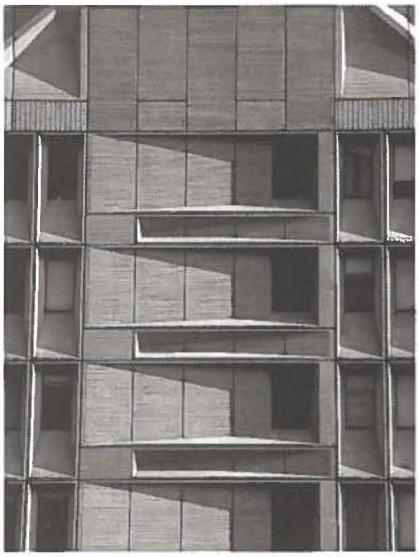


Fig. 3. **Sculptural detail** of facade

A LETTER FROM ROBERT GATJE, CO-ARCHITECT OF ARMSTRONG RUBBER:

I was a young partner of Marcel Breuer's, fresh back from a stint in Paris, when he called me into the office one day to meet Gen Joseph R Stewart Ret who was shortly to become President of the Armstrong Rubber Company – an imposition by Sears and Roebuck who wanted to give Armstrong a higher profile as a tire-maker somewhat independent of their main customer.

I had never risen above corporal during my brief army career and had misgivings about running a job for such a lofty military man - who had been an all-American football player to boot. Joe turned out to be one of the best clients we ever had - perhaps because his sense of organization allowed him to keep the roles of client and architect clear and distinct.

On matters of design he always deferred to Mr "Broy-aire" and never got the pronunciation right in the 25 years that we knew him. Hanging an office building from above seemed logical to him, if that's what Dick Lee wanted, to signal the turn-off from I-95 toward New Haven. And when Breuer's off-hand estimate of a 10% premium for this structural tour-de-force turned out to be true he recognized Breuer as the sensible businessman that he was.

Our one point of conflict was the argument over building signage. Breuer said it needed no sign since everyone would recognize the Armstrong Building based upon its architectural reputation. Joe said his Board insisted, so we designed the free-standing sign that was to make anything on the roof unnecessary. But New Haven had a sign ordinance and Joel Cogan's people said they preferred the independent sign but feared the precedent it would set for every gas station down the pike. Signs on buildings were accepted if not preferred, so our sign structure got a door to its base (which was to contain garden implements) that made it a "building", and the rest is history.

I last saw Joe Stewart and Dick Lee at the 25th birthday celebration of what was then the Pirelli building. Breuer was too sick to attend, and died a year later, but he was very proud to receive reports of the universal acclaim that was heaped upon him and his brain-child at that memorable occasion.

Robert F Gatje, *FAIA*

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Cornell University
Partner of Marcel Breuer for eleven years
Partner of Richard Meier for five years
Biographer of Breuer, Marcel Breuer, A Memoir 2000
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For more information, consult:
www.breuernewhaven.org

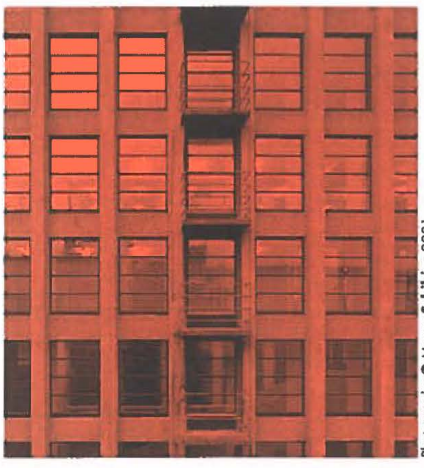
The Swiss **National Library** in Bern

AN EXCELLENT RESTORATION OF MODERN ARCHITECTURE

The building for the Swiss National Library in Bern was designed in 1927.[1] It is one of the first buildings constructed according to the principles of the 'Neues Bauen' in Switzerland. The huge step toward modernity could not have been more evident than here, in the immediate vicinity of the monumental neo-classical high-school, built only 3 years before.

BERNHARD **FURRER**

BASED ON a strict axial symmetry the library layout is composed of four different parts. The central book stack called 'book-tower' illustrates the building's function. It is an eight floor high-rise building whose concrete front-pillars in a narrowly set rhythm underline its verticality; the height between the floors (2.12 m) and the width between the pillars (1.52 m = 0. 35 + 1.17 + 0.35 m) reflect exactly the measures of the book shelves (*fig. 1*). The public central building to the south contrasts sharply with the high-rise 'industrial' building. Flanked by the two office-wings, four storeys high, with horizontally disposed band-windows, it is only two storeys high with a broad outdoor staircase leading to the entrance of the library's rooms. The rooms accessible to the public (reading room, catalogue hall, lending desk and exhibition hall) are located between the book-tower and the central building; they all are equipped with large skylights *(fig. 2)*. The building-complex, with its clearly defined plan and volumes, is an outstanding example of functional architecture and belongs to the masterpieces of modern architecture of the late 1920s in Switzerland. An important quality of the building is the minute design of its constructive and formal details and its furniture. Several works of artists enrich the National Library which is registered on the Swiss DOCOMOMO list.



Photography © Marco **Schibig**, 2001

Fig. 1. **The facade of the 'book tower'** is a very disciplined structure of concrete. The small balconies were used for dusting books. The original windows were maintained and double-glazed from inside. Behind the windows, a glimpse of the new cascade-stair can be caught.

IN 1991, technological progress, new concepts for storing and preserving books and modern management of book-lending raised the question of keeping the library in its primary location or of transferring it to a new site. A carefully elaborated survey clearly concluded that the library should be maintained in the present building – in fact it is an important feature of a building to maintain its original function. With the preservation authority, a broad range of alternative possibilities was discussed and a solution suiting the building was found.
The transformation-work began with a new seven storey underground storage facility built under the courtyard behind the eastern wing. In the old 'book-tower', books were subjected to enormous fluctuations in temperature and humidity, whereas the new building guarantees a constant climate and a very high degree of safety against burglaries, fire and water hazards and physical destruction in case of war. The mostly underground extension is apparent over ground in the shape of a glazed pavilion of excellent contemporary architecture, joining the stored books to the library. Before the intervention on the historic building a 'codex for the architectural behaviour while restoring the National Library' was worked out by the architects and the preservation office.[2] It formulated the preservation goals and the principles for the handling of the monument in all its parts, which was a valuable guideline for all the decisions that had to be taken. The first priority was granted to a perfect *conservation and restoration* of the public rooms that had preserved their original substance, though the necessary changes due to emerging new functions and uses were taken into consideration. A second aim was to *re-establish* the former state of technically and aesthetically disadvantageous altered parts. Restoration- and transformation-work started in autumn 1998 and was completed in 2001. One of the main problems was the restoration of the facades. The original construction combined various materials such as natural stone, tiles, concrete and plaster, a combination which had caused major cracks and splits. However any solution including extra layers of material would have resulted in an important alteration of the shallow relief of the facades. Finally the original construction was maintained and the original colours were re-established.[3]

THANKS TO the new underground archives the former 'book-tower' was dedicated to other uses: the lower storeys for the necessary new public spaces, such as a free-hand library, a newspaper division, working space for research purposes, and new media areas. The scarce height and modest span of the rooms formerly devoted to book-storage were problematic. A 'cascade-stair' giving access to the newly opened public spaces was incorporated

Fig. 2. **The reading room** with its the huge glass ceiling. Apart from the seats, all the furniture is original.

within the narrow structure. It is the strong sign of a respectful, yet creative process of rehabilitation of the library: a carefully designed new element for a new use, incorporated to the fully preserved industrial design and character of the 'book tower' *(fig. 3)*.

IN THE central building the entrance-hall and the corridors were preserved, including the porch which shows the original aluminium details. The remaining lamps, especially developed for the Library, were restored; those missing were replaced by faithful copies of the original models.
In the office-wings, the existing structure of the building was already adapted to its new requirements. Most of the original features had endured, namely, doors, cupboards, wooden floors and parts of the windows. All these were restored including the electric clocks every office was equipped with: a genuinely Swiss invention to ensure that employees would begin (and end) their work on time...
The top floor of the eastern wing was restored to its original colors.
The staircase, the corridor and three rooms were restored and reconstructed with full respect of all their details,[4] such as the original linoleum floor, the wall-papers, the lively colors including the surprising brown hue of the ceiling, the windows with their mountings, the heating-installation, the lamps, the steel cupboards and several more pieces of original furniture that could be identified in the building.

The original substance and aspect of the public rooms on the ground floor were conserved wherever this was possible. The reading-room located left of the central lobby was preserved with all its details: the surfaces of its walls, floors and ceiling (with zenithal lighting), the wooden inserts in the bookshelves niches and the tables; the chairs were reconstructed according to the old models. As a consequence of the *book-tower's* new public use, the book counter in the main axis had to be removed while a new opening was created which merges the old and the recently created public spaces.
To the right of the central lobby, the catalogue room was enlarged and the former exhibition-hall was re-established.

FROM THE FIRST concepts to its completion, planning and extensions, the restoration of the Swiss National Library took ten years time.
All measures taken were marked by the unusual and minute attention of the owner, architects, building authorities and craftsmen.
The interventions were planned and executed with great respect for the monument. The facades and the surviving original features were conserved and restored with utmost care. The necessary changes – the pre-requisite of maintaining the original use of the building – were minimized. To a limited degree some original substance was lost, but in return a new architecture of high quality emerged.

BERNHARD FURRER *is the head of the preservation office of Bern, professor at the "Accademia di architettura", Mendrisio, Tessin and president of the Swiss National Board for Preservation; he is a member of DOCOMOMO Switzerland.*

NOTES
1 The architects were Alfred Oeschger (1900–1953), Emil Hostettler (1887–1972) and Josef Kaufmann (1882–1962).
2 A second underground-storage is planned under the garden in the west.
3 Client: Swiss Confederation, Federal Office for Buildings and Logistic. Architects: community of architects for the Swiss National Library, Andreas Furrer, Kurt M. Gossenreiter, Christoph Stuber.
4 The client agreed that the intact appearance was more important than a technical optimization of the construction.

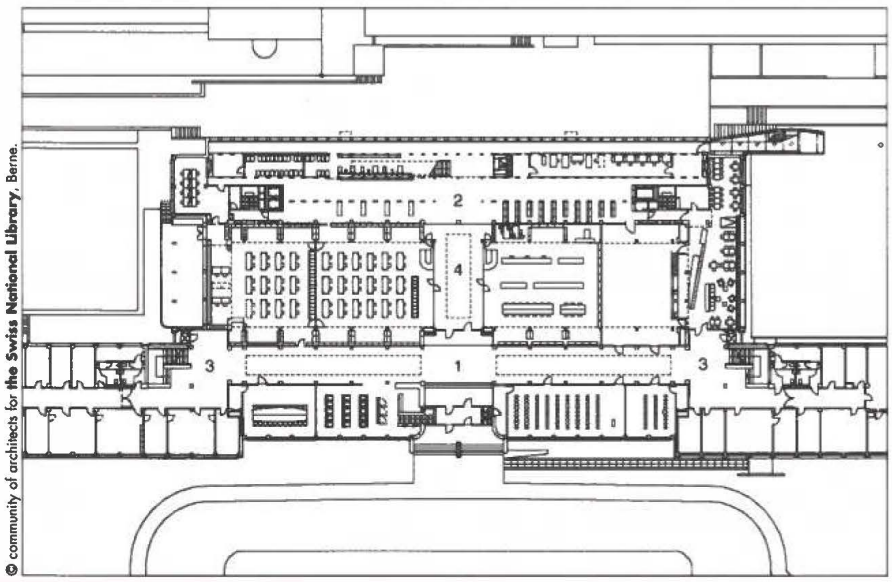


Fig. 3.
The ground floor plan shows the four different volumes of the building.
1 entrance hall/lobby
2 'book-tower'
3 administration wings
4 public rooms (reading-room, catalogue-room, exhibition-hall).

The Silo de la Charité-sur-Loire in France

A RARE TESTAMENT TO THE FORMAL STRUCTURAL STYLE OF THE 1930s AND 40s

A legacy of modern architecture's impact on the agro-industrial realm, the old silo in La Charité-sur-Loire is a rare testament to the formal structural style of the 1930s and 40s. Built from an American model at the close of World War II with Marshall Plan funding, this building pays equal tribute to French-American relations and, in as much, constitutes a shared legacy. This dual-nationality - French by virtue of the land and history, American by virtue of design and funding - increases the valuable heritage of this edifice, thus warranting the attention of both nations *(fig. 1)*.

CYRILLE **PARLOS**
Translated by Eleanor Weller Antonietti

AS FAR AS its industrial utility is concerned, the silo is by now obsolete and poorly adapted to the techniques of modern agricultural production. Due to a lack of ideas and means, as well as a derelict state for nearly twelve years now, it is henceforth in danger.

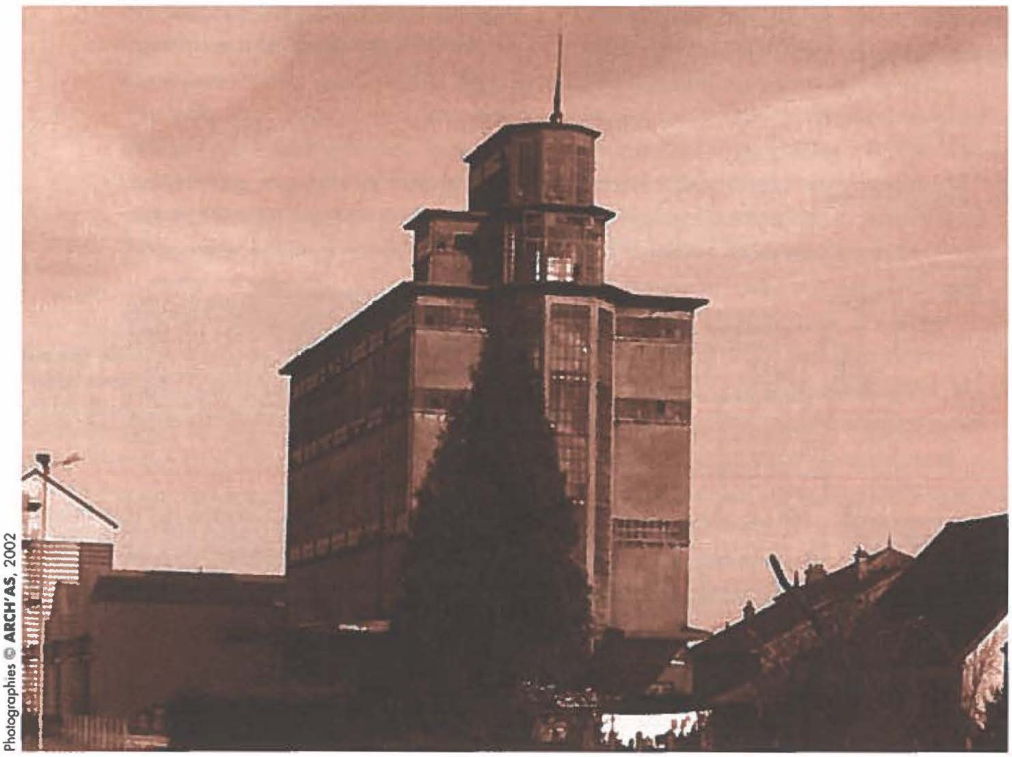
THE BUILDING is designed in two vertical sections separated by a construction joint, with one section for storage and the other for the vertical conveyance of men and material. The storage layout is subdivided into levels, each with container units accessible from the front tower. Iron walkways situated above the units allow workers to supervise the containers below.

THE COMPLEX is built according to a post-and-beam structure representative of the American approach, engineered with French know-how in reinforced concrete. These unique features demonstrate yet again an originality resulting from its dual nationality *(fig. 2)*.

FOR THE PAST THREE YEARS, the Parisian architect Cyrille Parlos, assisted by a team assembled within his firm ARCH'AS, has undertaken to salvage and remodel the silo. His effort is fuelled by the significance of this building and a professional passion for its architectural design.

A RAPID ASSESSMENT shows a rationally organized building structure which centralizes the various vertical access routes to each level inside the tower. This feature translates to a technically simple remodeling for adaptive use as a building suitable for company office spaces, thus facilitating the mission of building preservation.

Fig. 1. **General view of building**



Photographies © ARCH'AS, 2002

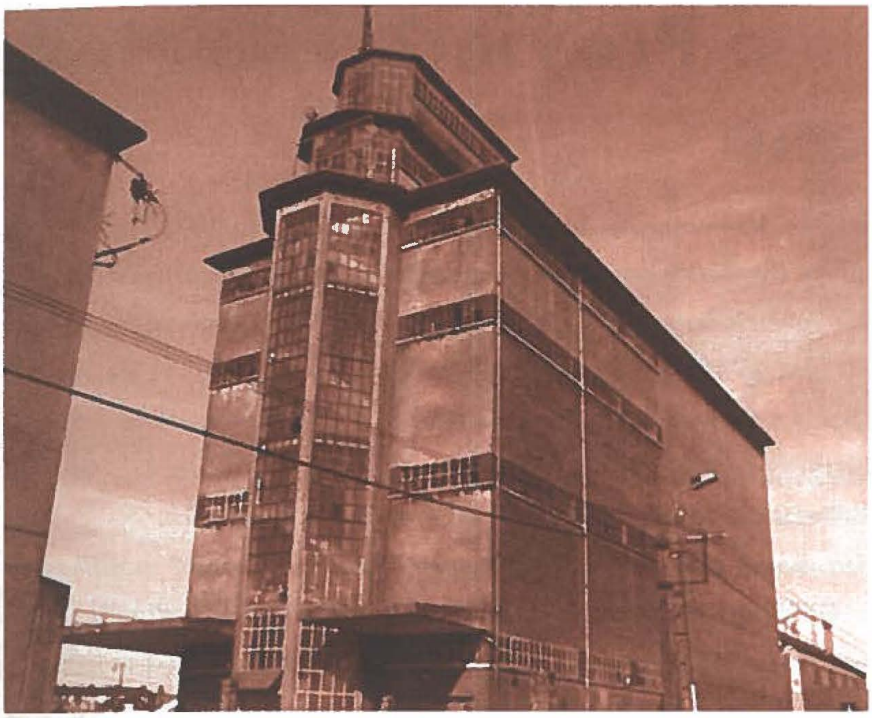


Fig. 2. **The tower**

BY VIRTUE of its current location at a new urban crossroads linking the old city (whose abbey is classified as an international heritage), the outskirts (faubourgs), and the expanding industrial and skilled trade districts, its proximity to the train station and its easy access to the new A77 motorway from Paris, this site provides a perfect opportunity to establish the businesses needed to bring new life to this legacy of the 20th century.

GIVEN the building's unique architectural features and spacious interiors, the project is geared toward granting preferential occupancy to the arts and crafts trades. This policy would readily lend itself to forming a business center around this theme. Three small businesses have already applied for office space.

PRESERVATION and revitalization serve as the guiding principles of this remodeling, a project which is currently in the development process. A comprehensive layout, floor plan, and outline of the remodeling proposal have been completed. All that remains to be done is to find funding partners who will back this venture.

THE ARCHITECTURAL project entails significant modifications to the building, both for restoration and adaptation to its new purpose as a service sector building. The imperative of maintaining the integrity of the original design will be met by four guiding principles:
- Highlighting the signature architectural features of the original building
- Preserving the existing vernacular of simple recurring projections or "redents"
- Forming openings from the square modules
- Clarifying the interpretation of the plan with a functional organization

THE ECONOMIC scheme of conversion into a service sector site for arts and crafts businesses (scale model makers, artists, restoration specialists, architects, visual artists, etc...) is currently being evaluated. It is based on the strong opinion of C. Parlos that "development of economic activity is a means of safeguarding industrial heritage." This credo is articulated as follows: "We must restore meaning to this old wheat plant, establish businesses and bring life to this building whose numerous assets go well beyond the legacy factor."
"Furthermore, the economic development of industrial heritage could effectively promote durable growth of the local economy and the vitality of the surrounding area." The presence of businesses will cover some of the costs of the renovation and will guarantee continuity in building maintenance. However, due to its current dilapidated state and in order to ensure a properly engineered restoration, it will be necessary to appeal to funding partners, acting as patrons, to cover the additional expenses needed to save the edifice *(fig. 3)*.

IN LIGHT of this need, the ARCH'AS team seeks the involvement of French and American partners (occupying property owners, patrons, investors). Furthermore, the team is in search of the following information and documentation regarding the silo and its history: the names of the model designers, architects, and engineers, documentation on the existence of a similar building elsewhere in the world, and, particularly in the United States, a building which may have served as a prototype, etc...

IN CONCLUSION, we would like to acknowledge Cyrille Parlos and ARCH'AS for their personal initiative. They aptly demonstrate the fundamental role of both architects and private citizens in the preservation of and advocacy for our modern architectural heritage. Furthermore, they are conscientious of the fact that: "The success of such a conversion and revitalization of architectural capital depends on a healthy mix of voluntary involvement and skilled restoration of original architectural attributes."

Fig. 3. **Moving carpets** giving access to the cells

Modernism in a **Provincial Center** in Turkey: **Adana**

The history of the Modern Movement in Turkey began towards the end of the 1920s. The overriding trend on the Turkish architectural scene until 1930 was a historicist movement called the *First National Style* in Turkish architectural historiography. Then, between 1930 and 1940, a modernist movement developed both by local and European architects achieved prominence in the country. But this is obviously an oversimplified historical view. During the first half of the Modernist decade, for instance, the Art Deco movement was also very active in Istanbul. Furthermore, far from being monolithic, the Modern Movement varied in different parts of Asia Minor. Buildings commissioned by the central government reflected an international style while local versions of modernism were observed in other cities. Adana, as a medium-sized city and provincial center in Turkey, marked itself off on this particular modernist architectural scene.

GULSUN **TANYELI**
Translated by Nilufer Baturayoglu Yoney and Yildiz Salman

ADANA is the largest and most important city of the Cukurova region, located at the easternmost edge of Turkey's Mediterranean coast. During the 19th century, this productive land plane was the first region of the country to develop an industrial agriculture. Due to the shortage of cotton in Europe and rising prices as a result of the American Civil War, the city's wealth and population increased rapidly. The first important capitalist farmers of the country were from this region and initiated a local form of industrialization based in the long run on agriculture. This was determinant in the architectural destiny of the city, and Adana has proved itself to be an active architectural client and profile ever since.

THE OLDEST MODERN building of the city was probably the *Cotton Seed Crushing Mills* designed in 1926 by Owen Williams, one of the forerunners of British Modernism.[1] Unfortunately, nothing remains of this building, which must have been destroyed a long time ago.
In the following years, as of 1929, two architects were on the forefront of construction activities in the city: Semih Rüstem Temel and Aptullah Ziya Kozanoğlu. Both completed their architectural education in the Academy of Fine Arts in Istanbul, but were natives of Adana itself.

SEMIH RÜSTEM is especially interesting as the first architect to import a number of international modernist topics of his day to the architectural scene in Turkey. One of his books is the first known work in Turkey on the design of low-cost public housing.[2] His first work in Adana was the Municipal Slaughterhouse, designed in 1929 and completed in 1932. The building was a local variation of Art Deco, which indicates that its architect was not yet a Modernist at the time and probably still influenced by the turn of the century Turkish historicism. The architect only started developing a modernist style starting in 1930. The four adjacent villas he designed on the recently opened and prestigious *Istasyon Street* (Main Station) were all modernist in character. These single houses, two-storeyed structures of plastered brick masonry, were the *Ismail Hakki Bey, Sevket Bey* and *Sait Bey* Houses and the architect's own house *(fig. 1)*.[3] Another work by the same architect was the *Is Bank* local branch office in Mersin, also in Cukurova. It was modern in character as well but differed in appearance with its local cut-stone façades. Semih Rüstem left Adana in 1934 to work in Ankara, as a board member of the Ankara Branch of the Turkish Architects' Association (1934-1936). The last record of his architectural career was, in 1938, his resignation from the office of Director of the Construction Committee for the Municipalities, based in Ankara.

ARCHITECT Aptullah Ziya Kozanoğlu was already quite a famous and interesting character known throughout the country since the mid 1920s as the author of popular historic adventure novels when he began to work in Adana as an architect in May 1931. His first building in the city was the chemist's *Ahmet Riza Bey* House also located on the *Istasyon Street.* His next projects were the Adana City Stadium and Agricultural Insectology Laboratory *(fig. 2)*.[4] He also reinforced the foundations of the structurally unsteady Teachers' School for Boys which allowed him, coincidentally, to turn the school's appearance from historicist to modernist. Meanwhile he also retained his connection with the *Mimar* (Architect) magazine based in Istanbul, in which many of his unrealised projects were published.[5] The most important characteristic of

Photography **Mimar**, 1932/4, pp.108-111; 1932/5, p.140; 1932/7-8, pp.205-206; 1933/4, pp.99-102

Fig. 1. **Sait Bey House**, arch: **Semih Rüstem**

Photography **Mimar**, 1932/7-8, pp. 202-204

Fig. 2. **Agricultural Insectology Laboratory**, arch: **Aptullah Ziya Kozanoğlu**

Kozanoğlu's realized and unrealized projects was the expression of an individual mannerism, with a series of formal preferences developed in a manner reminiscent of Rob Mallet-Stevens. Kozanoğlu also left Adana for Ankara in 1933, where the rest of his professional career was rather more oriented towards working as a contractor. There are no records of any architectural design after 1940.

ANOTHER important name of the Modern Movement in Adana was Seyfi Arkan, who, unlike Semih Temel and Kozanoglu, never was a resident of the city. He was an architecture professor at the Academy of Fine Arts in Istanbul and designed a large number of buildings in Ankara. He also drew three projects for Adana, only one of which was realized. The unrealized projects included a public housing zone called *Ucuz Evler Mahallesi* (Cheap Houses Neighbourhood) and the municipal town hall. His project for Adana's *Halkevi* building (People's House), on the other hand, was completed in 1938 *(Fig. 3)*. Compared to his unrealised projects, the symmetrical aspect of the People's House reflects more of a "*Moderne*" rather than "*Modernist*" character. This building shows that, at the end of the 1930s, the architectural preferences of the country were slowly leaving the tendency towards the International Style.

SOME OF the buildings mentioned above have survived to this day, despite major interventions. The Agricultural Insectology Laboratory, for instance, one of the most significant modernist examples in Adana, has been turned into lodgings for its employees. As a result, extensions have been made to the building and it is poorly up kept. Owned by a governmental institution (the Local Agricultural Directorate), it has not been torn down, but, for that matter, is not properly conserved either. Arkan's People's House, has also gone through major interventions and been enlarged with extensions used jointly by the Adana Metropolitan Municipality and the National Theatre. Furthermore, during the widening of *Istasyon* Street (*Ataturk* Street today), the symbolic towers at its entrance were physically separated from the rest of the composition. But the building was brought under legal protection when it was listed on the National Registry in November 2002, which should be considered as some kind of progress.

THE SAME street also includes a last few examples of 1930s architecture left within the rapidly changing streetscape, an evolution due to new regulations which allow an increased number of storeys. Also located very close to the former People's House are the architect Semih Rüstem Temel's own house and the *Sait Bey* House. The architect's house came into the ownership of Ismail Sefa Beydir, one of the first Turkish ministers of education and is currently used by his son Ozcan Ozler. *Sait Bey* House belongs to the Sabanci family, one of the oldest and richest families of Turkey native to Adana, but the building is vacant and not well maintained. None of these buildings has been granted legal protection, being as yet unlisted on the National Registry and, owing to potential high land rent incomes in the area, they bear the risk of being torn down to make way for the construction of larger structures.

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NOTES

1 See Michael Gold, "Sir Owen Williams K.B.E.", *Zodiac* 18, 1968, p. 25.
2 Semih Rüstem, *Evler ve Apartmanlar* (Houses and Apartments), Mekteb-i Sanayi-i Osmani Matbaasi, Istanbul, 1337 (AH)/1922 (AD).
3 See. Semih Rüstem's houses: *Mimar* 1932/4, pp.108-111; 1932/5, p.140; 1932/7-8, pp.205-206; 1933/4, pp.99-102, Istanbul.
4 A. Ziya (Kozanoğlu), "Ziraat hasgrat laboratuvarı", Mimar, 1932/7-8, pp. 202-204; I. Aslanoğlu, Erken Cumhuriyet Dönemi Mimarlığı 1923-1938, Ankara, 1980, p. 133.
5 Seyfi Arkan's, "Adana projects", *Arkitekt*, 1939/1-2, pp.33-36; 1939/3-4, pp.76-80, Istanbul.

Fig. 3. **Adana People's House**, arch: **Seyfi Arkan**

Photography on old postal card (**U. Tanyeli collection**)

Montreal's **Grain Elevator no.5**

THE UNCERTAIN FATE OF A MODERN ICON

The value of Montreal's grain elevators to architectural history is perhaps most associated with their adoption as icons of modernity in seminal works such as Walter Gropius's *Die Entwicklung Moderner Industrie-Baukunst*, 1913, and Le Corbusier's *Vers une architecture*, 1920.[1] Grain Elevator no. 2, the one illustrated in these texts, was demolished two decades ago, adding value to those that have survived, and increased interest in keeping them standing.
Amongst the remaining grain elevators harboured by the Port of Montréal, Grain Elevator no. 5 is definitely the most prominent. Situated on a quay between the westernmost end of Old Montréal and its Old Port, it is part of a large post-industrial landscape that includes Habitat 67, and through its sheer size engages in the island landscape of former Expo 67 territory to the south.[2]

SUSAN **ROSS**

Grain Elevator no. 5 or "Silo 5", is a complex comprised of three separate elevators built and enlarged over half a century by the engineering and contracting firms of John S. Metcalf and C.D. Howe. Serving to receive, store, sort and distribute grain, occupying a site nearly a mile in length and twelve storeys in height, the complex of elevators is more of a machine and an element of the urban landscape than simply a building. The fate of this major urban landmark and most prominent reminder of the city's diminished economic function as a shipping outpost for grain brought by train from Western Canada, has been in question since 1994, when the government-owned facility stopped being used. A number of activities have since been organised to draw attention to it and help define its future. Since the site retains its internal equipment as well as its exterior connections to the rail and river transportation networks that it bridged, it is less abandoned than empty, waiting for its potential use to be determined.
Silo 5 is a particularly fascinating monument to the reasons why these structures appealed to European modernists: the complex of silos and conveyors in steel and concrete is a complete record of construction technologies developed in the first half of the twentieth century. While the section from 1903-06 is in steel, the additions from 1913-24 and 1957-59 are in progressively better-quality concrete, a symbol of the constant change in materials and forms that would be made in the name of developing a more functional form.
It is an unexpected monument, a type of site that raises many large and complex issues as to its role in the larger urban landscape, as to how a truly functional building can receive a new programme, and how modern construction materials like concrete and steel are perceived in their most brutal form.

URBAN CONTEXT

Silo 5 sits on a pivotal site, at the place where the old city that is slowly being taken over by new commercial and residential redevelopment meets what remains of the industrial landscape that was its economic *raison d'être*. The gradual transformation of Old Montréal by the conversion of warehouses and other industrial/commercial buildings into residential lofts has, perhaps not surprisingly, led to some developers wishing they could offer a clean and uninterrupted view

of the river, eliminating the final relics of the area's industrial past. Ever since the 1970s, when the Old Port gradually stopped being used for commercial traffic,[3] the citizens of Montreal have consistently reclaimed these sites for public use, to maintain or develop access to the waterfront. The most recent development was the 2002 reopening of the Lachine Canal to water traffic, albeit now only for pleasure craft. Part of one of the city and country's most significant industrial landscapes, the now reactivated canal entrance locks help ensure that the landscape that frames the grain elevator complex continues to provide a sense of the larger scale of geographic reference in which this type of urban infrastructure should be seen. And although cargo trains no longer run out onto the key alongside the silo, the potential the residual rails offer for developing a new type of public transportation has yet to be studied.

ADVOCACY AND LEGAL FRAMEWORK

Following demolitions in 1978 and 1983 of two of the city's other elevators, concerned citizens, artists, heritage groups, and local history and architecture institutions responded quickly to the closing of Silo 5, initiating light projections, conferences, exhibitions, visits, an architectural charrette and public forums for discussion.[4] Perhaps the most original activities were related to the silo's use as a "silophone". The elevator was literally transformed into an interactive musical instrument accessible to the public by telephone and over the Internet.[5]

Despite all these activities, even the grain elevator's most dedicated fans recognise that for the average citizen, the structure has an image problem. The rusting steel panels and cracked concrete walls of the older parts clash with the tendencies of neighbouring areas. As for most industrial sites in a dense urban context, the potential development value of the land provides the principal threat of demolition. One possible advantage is that the site is the property of a crown (federal) corporation. Federally owned sites that are more than 40 years old are systematically evaluated. The report by the office that examines the heritage value of federal buildings recognised the value of the elevator for its contribution to economic and technical history and as a landmark.[6] But legal protection against demolition has to be ensured at the provincial or municipal levels (Quebec and Montreal). While some industrial and early modern buildings have been included in surveys, few have been given any status. With three levels of government potentially involved, roles and responsibility must be clearly defined, a master plan developed for the site, and an authority created to implement and manage it.

ARCHITECTURAL CHARRETTE

In an attempt to lay the groundwork for some of the ideas that such a plan might follow, in September 2000, DOCOMOMO Quebec organised an architectural charrette together with other heritage, artist and history groups.[7] The event held at the École de Design de l'Université de Québec à Montréal brought together about fifty architects, designers and heritage consultants in five teams, to consider what approach should be taken with the site.[8] From the outset everyone agreed on the need to slow down the process, to gain time to find appropriate and viable solutions. The next point of consensus that arose was the need to work on changing popular perception. It was generally agreed that giving access to the roof for the spectacular views it provides of the city and the river would be an important first step.

But even this type of intervention requires introducing a certain number of safety features such as escape stairs and balustrades.

In the architectural charrette approaches to conservation varied, from the more architectural to the more art historical, but proposals were generally complementary.

They could be read as the different phases of a larger plan, since some were more concerned with immediate actions, while others advanced strategies with a longer-term socio-economic impact. If anything was contradictory, it was that some want to recognise Silo 5 as a monument by focusing on the object, while others saw the recognition of its role in the larger context as essential, making it part of a major urban rehabilitation plan for the whole area. Many interventions focused on improving access and opening up the more easily transformable tops and bottoms. Few scenarios explored how to use the actual silos for storage, but when they did, discovered that the structures designed to hold wheat grain could only be partially filled with heavier materials. The different approaches also recognized the distinctive character of the three elements.

The oldest steel part, deemed to be of greatest historical value, might be kept as it is but made accessible and function as an interpretation centre for the whole site.
The advanced state of decrepitude of the earliest concrete section suggested to some that it be left to nature or even encouraged to go to ruin within a post-industrial garden.
While more interventions were proposed for the most recently built section, whose articulated concrete form is also most expressive of the original function, this section is also the least problematic: relatively solid and clean, it is the part least likely to disturb the average visitor or neighbour.

PUBLIC OR PRIVATE SOLUTIONS?

PERHAPS because the participants chosen by Docomomo Québec tended to be firms with practises that have shown sensitivity to historical sites, none of the interventions proposed considered how to transform the building into a completely different function such as residential or office space. This is however what can be seen in examples from elsewhere in the USA, Europe and South America.[9] In Montreal itself, the radical transformation of a former refrigerated warehouse at the East end of the Old Port into highly-priced residential units serves as a constant reminder of the fate of such a site if left to real estate speculation.
KEEPING the site public was a premise that the participants assumed should continue. But, while public planning policies and management of the site's redevelopment are surely desirable, ensuring for instance that public access to parts of the site like the roof or an interpretation centre would remain, the possibility of a mix of public and private functions is surely worth considering, if it could help find the resources for the site's renewal?
A COUPLE of recent developments have added hope to the situation. Perhaps all these activities have helped to ensure that the fate of Silo 5 is now being discussed. In June 2002 plans including giving new value to Silo 5 and the whole sector that frames it were discussed as part of a whole new plan for the city of Montreal.
Then in October 2002, the *Société du Havre de Montréal* was created, a non-profit organization whose mandate includes overseeing the redevelopment and preservation of Silo 5 as part of a plan to give new value to a much larger port and riverside territory.[10]
THE FUTURE of elements of commercial transportation infrastructure in which so much public money, labor and materials were invested should surely be considered very carefully. Before making major changes, the fate of the elevator complex should be considered from the perspective of a larger time frame. It has only been empty for less than a decade. Silo 5, in its current state, is not only of great interest for urban, architectural and industrial history, but could in fact still be used for its intended function should a reversal of the present distribution patterns of grain ever occur. Careful evaluation and planning are essential.
ONCE A Storehouse for wheat that fed two continents, and an inspiration to modern architecture, its size and prominence make it an almost natural monument to the twentieth century city, but it is its ongoing use as part of a sustainable economy which will probably be what best ensure is survival, and lead to its acceptance by the larger public.

SUSAN ROSS *is an architect and member of DOCOMOMO Quebec who participated in the Silo 5 charrette with the team of LeMoyne Lapointe Magne architectes et urbanistes. She recently completed a Master's in Planning (Conservation of the Built Environment) at the Université de Montréal. Her master's mémoire considered the fate of the city of Montreal's water distribution reservoirs hidden in the urban landscape.*

Further suggested reading on grain elevators and modern architecture:
Reyner P. Banham, The Concrete Atlantis, *Boston, MIT Press, 1986*
Lisa Mahar-Keplinger, Grain Elevators, *New York, Princeton Architectural Press, 1993, and refer also to the bibliography in http://www.cca.qc.ca/charrette/1996. For recent photos see http://digital.library.mcgill.ca/industrial and search under building name "Grain Elevator No.5"*

NOTES
1 Other Canadian grain elevators illustrated in these works include the Cargill Elevator in Thunder Bay, Ontario, documented by Docomomo Ontario in a Docomomo international register fiche.
2 Moshe Safdie's modular concrete housing project (chosen as Docomomo Quebec's entry in the Dennis Sharp and Catherine Cooke, dir., *The Modern Movement in Architecture, Selections from the Docomomo Registers,* Rotterdam, 010 Publisher, 2000) occupies another quay to the south. Part of the Expo 67 transformation of Montreal's waterfront, this site has also been threatened by various development proposals in the last few years.
3 The Old Port, which still includes some commercial activity to the south of Silo 5, is so named as opposed to the larger newer port in the eastern end of the city that is still very active, maintaining an industrial waterfront further removed from the urban centre.
4 There have been two waves of activity, in 1996-8 and 2000. An initial report was published in 1998. Association québecoise pour le patrimoine industriel (AQPI), *Le silo no5 du port de Montréal et son secteur: le passé, l'avenir,* Actes d'une journées d'étude, Organisée par l'AQPI et Héritage Montréal, AQPI: Montréal, septembre 1998. It has also been the subject of a master's thesis and a comprehensive heritage study: Nathalie Sénécal, *The No.5 Terminal Grain Elevator In The Port Of Montreal: Monument In A Shifting Landscape* (Quebec), Montreal: Concordia University, 2001. Master's thesis; Bureau d'Examen des edifices fédéraux du patrimoine, Montréal, Québec, *Élévateur no5, Port de Montréal, Énoncé de valeur patrimoniale,* 21 octobre, 1996.
5 http://www.silophone.net
6 In the 1998 report, no mention is made of the contribution of Montreal's industrial grain elevator to modern architectural history.
7 The groups involved included: *Association québecoise pour le patrimoine industriel, Héritage Montréal and Quartier Éphémère.*
8 A CD of the charrette projects is planned for Spring 2003.
The five groups participating included: Boutros Pratte architectes with Bosses Design, LeMoyne Lapointe Magne, architectes et urbanistes, Dan Hanganu architecte, Docomomo Quebec (an association of individual architects) and Braque/ In situ architectes.
9 The conference held on Silo 5 at the CCA in 1998 included the presentation of examples of transformations of similar building types from around the world, including in Holland, England Chili, the USA and Canada. See the AQPI report in note 4.
10 The *Société du Havre's* Master plan should be ready in the autumn of 2003.

Innsbruck **mountain stations**

THE NORDKETTENBAHN (1927-28)

The Nordkettenbahn at upper Innsbruck, Austria, consists of three stations connected by a cable-car system, that date from the mid-1920s. It connects with down-town Innsbruck through the even older Hungerburgbahn cable-track that was constructed in 1904-05. The ensemble is an early and fascinating example of a modern structure, designed for recreation and leisure. Though merely for the happy few of the era, the buildings represent the onset of the international tourist industry that is strongly related to the concept of a modern lifestyle, involving leisure, sports and good health.

WESSEL
DE JONGE

MODERN VERNACULAR

Tyrolean modern master architect Franz Baumann (1892-1974) – one time apprentice of Lois Welzenbacher – designed the three buildings that accommodate the impressive installations, including the Hungerberg station at 863 m, the Seegrube station at 1905 m, and finally the Hafelekar station at an altitude of 2300 m above sea level. The innovative system itself was designed and constructed between 1927-28 by the local firm of Innerebner und Mayer.
The lower station contains a small lobby with ticket windows for the guests that arrive here to be transported to the ski area. Although this station has been designed in a rather vernacular style to match the surrounding architecture of the Hungerberg village, its organisation and rational lay out are undoubtedly modern. Many details, such as the light fixtures, already herald the sophistication of Baumann's design of the other two buildings.
The middle station connects the lower and the upper section of the cable-car system. The angle between the two explains the unusual lay out of the plan in its mountainous setting. This largest of the three buildings includes a spacious restaurant, a middle-sized hotel and staff accommodation. Although it has its back and roof turned towards the slopes - and, as a result, has resisted avalanches until today - the building graciously opens up towards the valley with terraces overlooking Innsbruck.
The third and smallest building at the summit is also the most particular in design. It sits on the perimeter of a plateau to receive the cable cars, with its massive white retention walls facing the valley. A modest café and some staff rooms are located at the upper levels. The slope-roofed volumes - some of them curved to fold around the rocky mountain top, strongly reminding Scharoun's works, in particular the 1927 house at the Weissenhofsiedlung in Stuttgart - beautifully blend the building with the landscape. Combining rational planning with local features, Baumann's mastership comes to full bloom in his design for the Nordkettenbahn.

UNDER THREAT

The stations were principally altered in 1958-61 when new and wider cars, suitable to accommodate the ever growing amounts of tourists, were installed. The original platforms, designed with two fixed bays to receive the two cars, were transformed by introducing a movable central platform, leaving a larger space next to it that could accommodate the new, wider cars alternatingly on either side. Still, these interventions have been carefully designed so as to retain the essential qualities of the stations.

Presently, the ensemble of the Nordkettenbahn is under threat as the management requires yet another increase of passenger capacity to keep up with other ski resorts in the area. Local experts are concerned that further renewals will irreversibly compromise Baumann's architecture, and may result in demolishment of some, or even all three of the stations. Students of the Institute for building history and architectural preservation of Innsbruck University have now started a campaign to analyse and document the buildings so as the define more accurately the individual qualities of each of the structures. Their excellent work and the expertise of the institute staff may assist in calling attention to Baumann's works, that are unmistakably rare and still in good condition.
It is clear that this unique ensemble deserves listing as architectural heritage and a serious reconsideration of the intended renewals.

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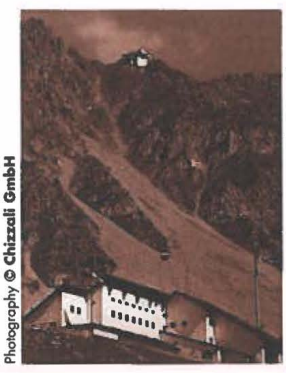

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left : **The Seegrube station** at 1905 m connects the lower and the upper section of the cable-car system and graciously opens up towards the valley with terraces overlooking Innsbruck.
right : The curved volumes of **the Hafelekar station** at the summit remind of Scharoun's works, and beautifully blend the building with the landscape.

MODERN HERITAGE IN AFRICA

As a key motif of this special edition, the map of Africa recalls the powerful influence of modernism that is a collective legacy throughout contemporary African spaces. By highlighting individual countries, we will focus on the fascinating diversity of modernisms within the entire continent. This is a shared heritage between North and South, created as each colonial nation installed its ideologies, forms and products in its colonies.

HANNAH LE ROUX, *guest editor*

Modernism in Morocco

JEAN-LOUIS **COHEN**
Translated by Isabelle Kite

Morocco appears on the modern architectural scene in the early 1920s when publications report on two simultaneous developments: new town planning layouts and public constructions created by Henri Prost and his team and the surprisingly thin reinforced concrete vaults built by Auguste Perret's for the Wallut warehouses (1915) which will remain an iconic reference in books published on that material throughout the decade *(fig. 1)*.

© J.L. Cohen

Fig. 1. **Auguste Perret,** *Hamelle warehouses,*
Rabat's road, Casablanca, c.1920, detail of thin reinforced concrete vaults
(first experimented in the Wallut warehouses).

THERE WERE ALMOST NO ARCHITECTS in the country before the French Protectorate (1912 to 1956). The first professionals cross the Mediterranean to Casablanca, the economic capital on the rise. Ulysse Tonci, established there since 1906, is joined by Hypolite Delaporte. Together with Auguste Perret, Delaporte realize the *Paris-Maroc* department stores with a reinforced concrete structure (1913-1915). Although Perret cannot achieve a similar project in Tangiers, he does however set up an office in Morocco, a proof of the opportunities the country then seems to offer for new ideas. At the same time, Adrien Laforgue settles in Rabat where, in 1914, Henri Prost sets up the Town Planning Office ("Service des Plans de Ville"), whose methods anticipate by a few decades, the methods adopted in France. From then onwards, Morocco is looked upon as a focal point of new ideas, experienced in the fields of law, sanitation, administration and town planning. All of this occurs

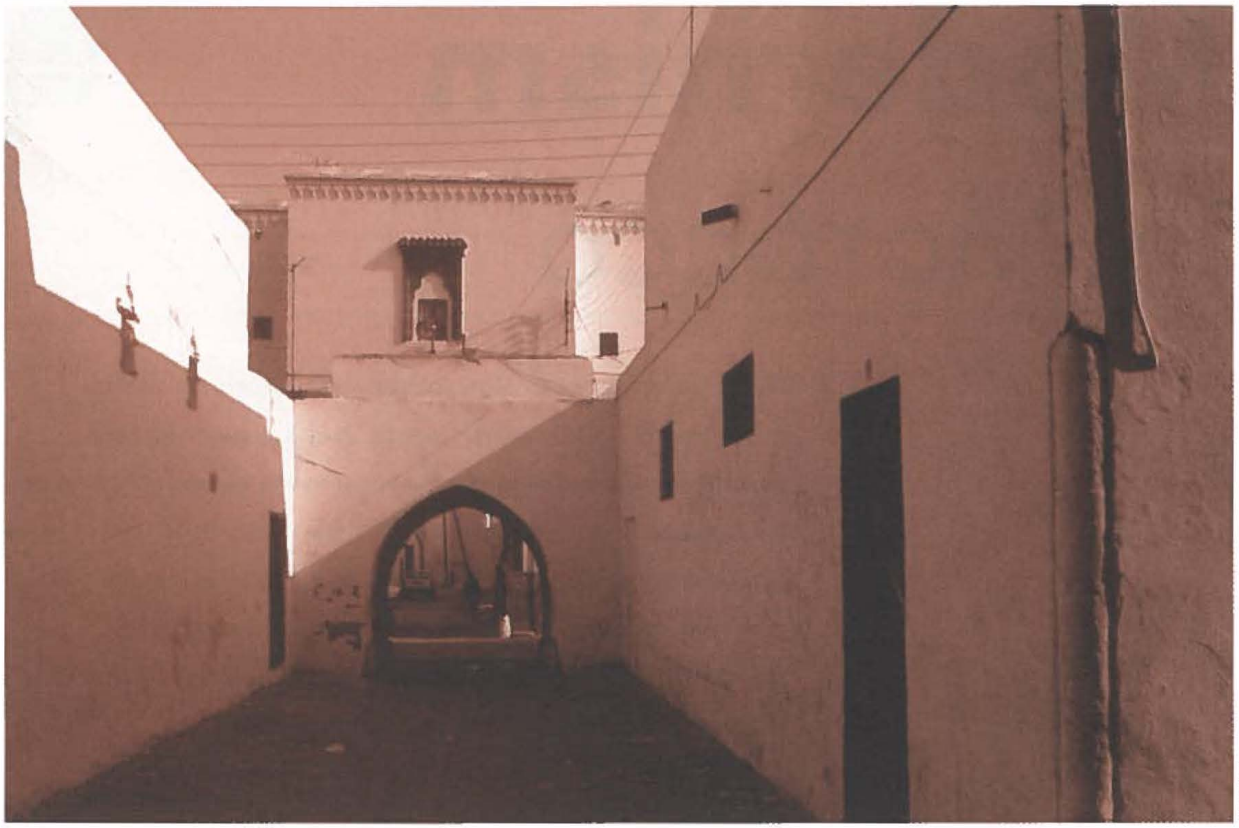

Fig. 2.
Albert Laprade, Auguste Cadet and Edmond Brion,
new indigenous city,
Casablanca,
1920-1922.

© H. Cohen

because Resident General Lyautey completely ignored the habits of the backward-looking, slow-moving and cumbersome bureaucracy typical in shaping his teams.

IN THE FIRST YEARS OF COLONIZATION, Laforgue and Joseph Marrast erect a remarkable network of public buildings combining traditional *décor* and Beaux-Arts composition, in Casablanca, Rabat and the main cities of the Protectorate, while, in the North, the Spanish protectorate's architects lay out vast planted squares, lined with neo-Mauresque buildings. Casablanca's exploding development is evident in the construction of tall residential properties for which European architects adapt Parisian themes to the local conditions. Albert Laprade, author of the magnificent General Residence in Rabat - whose gardens are designed by Jean Claude Nicolas Forestier – also launches the public works for Casablanca's new indigenous city, completed in the 1920s by Auguste Cadet and Edmond Brion *(fig. 2)*. Both arrived in 1915 with a group of war veterans and contributed significantly to the city's development.

MARIUS BOYER, a Paris Beaux-Arts graduate and the most prolific of these professionals, first presents Casablanca with a series of Art Deco buildings before leaving his mark on the city with its most surprising features, such as the Lévy-Bendayan building (1928), and the Asayag building *(fig. 3)*, whose stepped volumes equal Henri Sauvage's boldest projects for Paris (1932). An extraordinary period then starts, recorded by two journals, the *Chantiers Nord-Africains* (Algiers, 1930-1939) and *Réalisations* (Rabat, 1932-1939). Within Prost's program of regulated urbanism respectful of the Moroccan city's historic landscape and construction, buildings and villas explore new ideas inspired both by contemporary researches of Modern Parisian architects, such as the sober plasticity of Mallet-Stevens, and by traditional Moroccan ornamental vocabulary of ironworks and ceramics.

THE NAVAL REMINISCENCES of Pierre Jabin's Moretti building (1934) are most probably due to its proximity to Casablanca's nearby new port. Similarly, the Bendahan de Brion building (1935), with its pure horizontal lines, appears like a white ship anchored to the European city *(fig. 4)*. From the mid 1930s onwards, housing projects by Marcel Desmet, a Lillois architect whose style is rational and elegant, or Maurice Sori's first buildings, such as Casablanca's central police station (1939), introduce more clearly yet the Corbusean lexicon. Gaspard Basciano and Corrado Fichet, former students of the Boyer atelier at the Casablanca Fine Arts School, are the first young Europeans to attend the Beaux-Arts School in Paris and it is only in 1945 that the first two Moroccan architects are awarded their degree: Abdelkader Farès and Elie Azagury.

ON JULY 1, 1941, an architects' professional *Ordre*, based on the French legislation, is instituted. Although construction works come to a halt owing to the war, they take up again quickly, financed by the great amount of capital which had flowed into Morocco during the occupation of

Fig. 3.
Marius Boyer,
Lévy-Bendayan building, Casablanca, 1928.

France. A second golden age then occurs, the country appearing throughout the world as a permanent construction-site, freed of the duty of remembrance that European nations have to face. Designed by Léonard Morandi in Casablanca, the seventeen storey Liberté high-rise, at the time the tallest building in Africa, symbolizes, thanks to its aerodynamic flight, the rising spirit of the whole country (1949).

THE MUSLIM housing projects of Fédala, and, above all, of Aïn Chock in Casablanca, planned by Prost's successor Antoine Marchisio mark a turning point in the state policy. In 1946, architect Michel Écochard, converted to functionalist theories after working in Syria and Lebanon, becomes head of a town planning office granted with a widened range of competence. He implements an ambitious program rehabilitating Rabat's and Casablanca's outskirts, where slums are spreading. Horizontal housing projects of dwellings with patios answer the challenge of low-cost construction for working class families who come from the country. Surging from these low-rise layers, the Carrières Centrales buildings (1952) with their superimposed patios, are erected by Georges Candilis and Shadrach Woods of the ATBAT Afrique group (fig. 5). Alison and Peter Smithson do not fail to recognize there the first real break with the "universalism" of the Unité d'Habitation de Marseille. Concurrently, in Sidi Othman, André Studer suggests another, more plastic, interpretation of the same theme.

THE GROUND-BREAKING frame of mind of private investors and of the Protectorate's administrators, who have become sensitive to growing social needs, allows a younger modern architects such as Edouard Delaporte, Gaston Jaubert, Azagury, Jean-François Zevaco or Jean Chemineau to achieve inventive public programs. In 1951, they found the Groupe des architectes modernes marocains (GAMMA, the Group of Modern Moroccan architects), which becomes an affiliated member of the CIAM and partakes significantly to the Aix-en-Provence Congress in 1953. The hospitals designed by Delaporte and Chemineau introduce spatial innovations which take the high ground of contemporary French buildings. In housing design, Azagury's Villa Schulmann (1951), and the Villa Suissa by Zevaco (1949), both in Casablanca, and subsequently those ol Wolfgang Ewerth are glorified

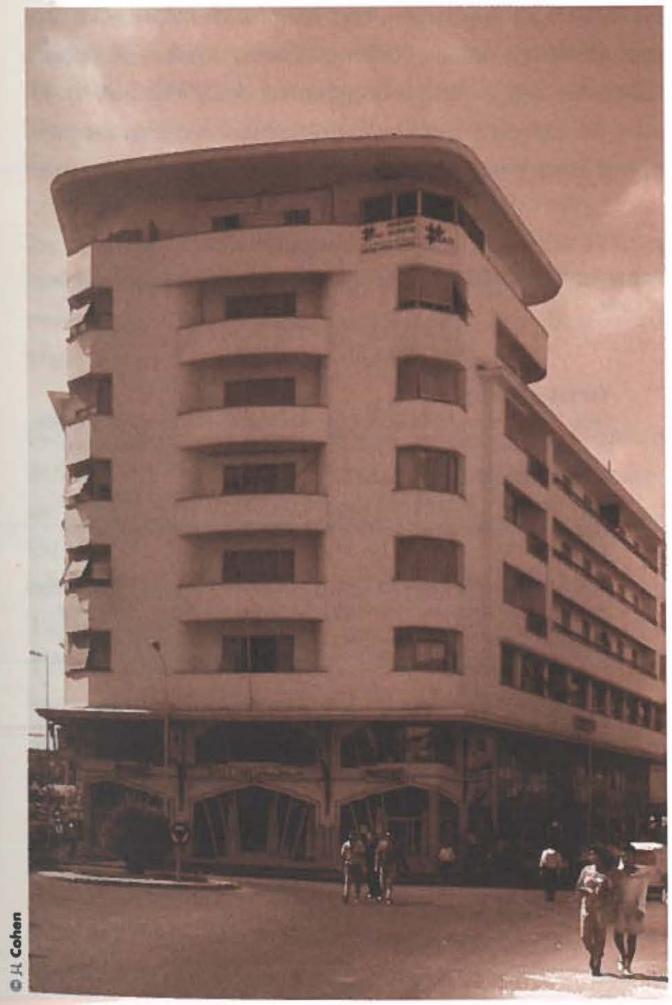

Fig. 4.
Edmond Brion, *Bendahan building*, Casablanca, 1935.

Fig. 5. ATBAT-Afrique **(Georges Candilis, Shadrach Woods)**, «*Beehive*» housing project for Muslims, Casablanca, 1952.

Fig. 6. **Elie Azagury**, *Azagury house*, Casablanca, 1962.

Fig. 7. **Henri Tastemain, Éliane Castelnau, Patrice de Mazières,** *housing building*, Agadir, c. 1962.

by Marc Lacroix's photographs. These buildings daringly explore the plastic themes which will long appear as an eye-sore for the conservative French bourgeoisie established in Marocco.

IN 1956, Morocco's independence and reunification of North and South, do not interrupt the implementation of the Habitat Office's projects, and the policy outlined by Écochard lasts throughout the mid-1970s. Neo-brutalism is well represented by some dwellings, such as the house Azagury designs for himself in Casablanca (1962) *(fig. 6)*. A dense network of state facilities is built in the country, among which are the notable law courts of Fédala by Zevaco and the civil service buildings and hospitals by Henri Tastemain and Eliane Castelnau. However, it is only during the reconstruction of Agadir, destroyed by an earthquake in 1960, that the birth of a Moroccan architecture, based on a critical interpretation of the post-1945 modern stances, truly occurs. Within the framework of Pierre Mas' urban plan, architects such as Azagury, Tastemain, Patrice Demazières and Zevaco *(fig. 7)* stamp their imaginative structures on the city's landscape. The questions raised by these exacting professionals are broadcasted in the columns of the *'A+U'* journal, published between 1960 an 1970, on Mourad Ben Embarek's initiative. However, successful tourist-oriented architecture, apart from the Cabo Negro ensemble and the real-estate developments designed by Demazières and Abdeslam Faraoui, remains a rare feature.

AFTER a relatively long post-modern season, characterised by a decorative and historicist style promoted by Hassan II, modern architecture is no longer branded as symbolizing colonization, and actions for its preservation are growing, thanks, among others, to the non-profit *Casamémoire organisation* (created in 1995). But, up to now, no concerted action for restoration or improvement of this legacy has yet been undertaken.

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Modern architecture in **Algiers**

During the first half of the 20th century, Algiers experienced probably the most important and remarkable development in the city's history of modern architecture and town planning. In this short essay, we will outline the most important events and evoke the major buildings that shaped the city between the 1900s and the 1950s, bearing in mind as we read, the social and historical context which were the conditions of this architectural production.

BOUSSAD **AICHE**

"MOORISH" architecture, the new architectural language at the turn of the century, prevails throughout the country, in close relationship with the specific political conditions of that period. Algiers, the French colonial city *par excellence*, is the heart of the cultural conflict between Colonized and Colonizer,[1] where colonial propaganda aims at gaining the natives' sympathy by giving the colonizer a renewed image: the " protector's" image.[2]
JONNART, then governor of the city promotes the 'Moorish' style and the recognition of local patrimony. Many prestigious buildings built in 'Jonnart's style' remain landmarks in the city: most notably the great post office, *la Grande Poste*, designed by the architects Voinot and Tondoire, and, both designed by Henry Petit, the *Wilaya* (on boulevard Zirout Youcef), the headquarters of the newspaper *La dépêche Algérienne* (on boulevard Khemisti), and the *Medersa* (rue Ben Cheneb).

SOME of these buildings, such as the Antiquities Museum in the Liberty Park and the St. George hotel, known today as *El Djazair*, have been recently listed *(fig. 1)*. Built by Guiauchain Sr. towards the end of the 19th century, the hotel was restored by Jacques Guiauchain Jr. during the 1920s, and subsequently by Fernand Pouillon in the 1980s, after Independence.[3] Both buildings borrowed from the vernacular language mostly the arcade columns and cupolas, which many critics at the time rejected as an architecture based on pastiche and imitation.
The media hold a strategic position in spreading the Modern Movement ideas, most crucially the *Chantiers Nord-Africains* review, with its continuing debate on modern architecture in North Africa, and more particularly in Algiers. For instance, Jean Cotereau, in a series of articles on Mediterranean architecture published in 1930 by the *Chantiers Nord Africains*, raises the question of vernacular or Mediterranean references in contemporary architecture.

MOREOVER, in another article published in 1930 by the same journal, Frantz Jourdain, president of the Société des Architectes Modernes, forcefully exposes and opposes imitation or pastiche architecture: "The SMA has declared war on copycats, fakes, counterfeits and traced reproductions".[4]
Furthermore, as an ambitious program for new buildings is launched in 1930 to celebrate a hundred years of French occupancy *(le Centennaire)*, Algiers turns into a workshop for new ideas and advanced modern architecture. The outcome is an architectural production which adapts European modernism to cultural, social or economical local conditions. Architects present new projects which try to

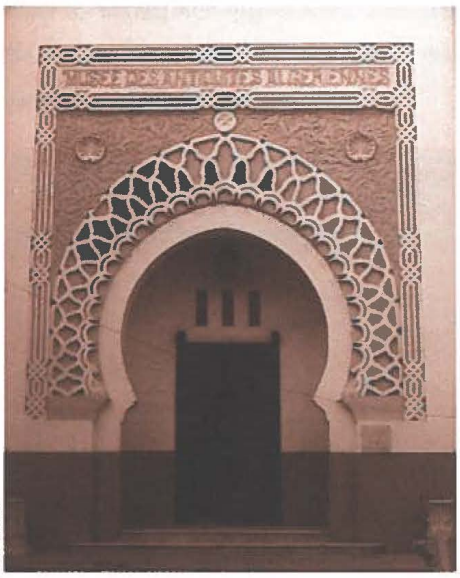

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Fig. 1.
The Antiquities Museum built in the purest **"Jonnart' style"** in the early twentieth century. "

demonstrate the necessity of local roots as a crucial component of genuine modern architecture.

Also essential to the development of the Modern Movement in Algiers are the engineer Auguste Perret and his firm (Les frères Perret), who built the Government House and the Ministry of Agriculture, both designed by Jacques Guiauchain. Perret and his firm prove themselves to be masters of detail and technical prowess, and Perret regards the structural frame as the most important part of a building. He is undoubtedly a great influence on leading contemporary architects.

These particular circumstances –*le Centennaire*, Perret's firm, the debate fuelled by public commissions and the architectural media, etc.– influenced and incited the generation of architects at that time called *algérianistes*, to create a Mediterranean architecture by focusing on local values.[5]

TWO LANDMARKS of the Modern Movement's beginnings in Algiers are the Fine Arts Museum in Hamma and the *Aletti* hotel. Designed by Richard Joachim and Auguste Bluysen in the 1930s, the *Aletti* hotel (today the *Safir Hotel*), on the boulevard Zirout Yousef, (Algiers' waterfront) lies at the threshold of Art Deco and the Modern Movement. The Fine Arts Museum (1930), designed by Paul Guion, is doubtless one of the best examples of a modern architecture both adapted to the local context and related to the emergence of the Modern Movement worldwide. The building, facing the botanical gardens *(Jardin d'essais)*, was listed in 1997 and is today being restored.

The major cultural movement which emerged in Algiers during these years is exemplified by the work of architects such as Xavier Salvador who designed the Lazerges school in Bab el Oued as a piece of pure white architecture. Salvador also enhanced his design for the Labatut building on the rue Didouche Mourad with colorful ceramics. For many Modernists such as Lathuillière, Montaland, Guerineau, Bastelica, Seiller or Claro, the Algiers episode was an outstandingly rich period of their architectural activity.

Fig. 2 Global view of Algiers showing the *"Aéro-habitat"* by **Miquet and Bourlier** on the right.

© B. Aiche

IN 1933 and 1936, two exhibitions are held in Algiers, directed by P.A. Emery under the patronage of the *Société des Architectes Modernes*. In 1933, during the first *Cité Moderne* exhibition, Le Corbusier's Obus layout for the city of Algiers is presented to the public. Consulted for the reconstruction of the *Quartier de la Marine* on the outskirts of the historic center and, having worked on various schemes and urban proposals with local knowledge provided by P.A. Emery, Louis Miquel and Jean de Maisonseul, he comes up with probably one of the most provocative proposals of the Modern Movement. Ultimately, Le Corbusier's projects for the city were never realized, but his impact on the development of modern architecture in Algiers is fundamental.

Today, Le Corbusier's influence is obvious in several buildings, such as the bridge-building Burdeau (*"l'immeuble pont"*), by architect Mary (1950), which is a modest replica of the huge viaduct of his 1930s scheme for Algiers. Another example is the *Aero Habitat* building: a Miquel, Bourlier and Emery project, it was designed along the lines of Le Corbusier's *Unité d'habitation* concept *(fig. 2)*. It is also exceptionally well integrated on sloping grounds overlooking the port and the bay of Algiers, the shopping gallery on the 10th floor joining the building to the street on the upper level of the site

TWENTIETH CENTURY Algiers is a syncretism of various trends influenced both by local factors and European developments. Colonial Algiers is part of the country's collective memory and today illustrates some significant aspects of the Modern Movement's cultural legacy.

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Modern **architecture** in the **Belgian Congo**

A FORGOTTEN LEGACY AND A "SHARED" HERITAGE

While the literature on architecture and urbanism in formerly colonised territories such as French North Africa, British India or the Dutch Indies has significantly expanded over the last decades, research on 20th-century architecture in Central Africa has remained limited. The selection of buildings and projects in the sixth volume of World Architecture. A critical mosaic 1900-2000, a series edited by Udo Kultermann under supervision of Kenneth Frampton and dealing with Sub-Saharan Africa, illustrates that the region of the Congo Basin has remained a blind spot in current historiography.[1] If one wants to gain a better understanding of the worldwide diaspora of architectural modernism, however, it will also be essential to document and analyse the important heritage of Central Africa that was built under European colonialism. Such studies can contribute to a critical reassessment of the 'modern survey' that, as Sibel Bozdogan has argued, should devote "more space to how metropolitan architectural debates of the nineteenth and twentieth centuries were reproduced, transformed or contested in distant lands and overseas territories".[2]

JOHAN **LAGAE**

THIS ARTICLE aims at shedding some light on this blind spot by presenting a brief discussion of the architectural modernism that was introduced in the former colony of the Belgian Congo.[3] Some major episodes in its development will be commented upon in relation to the evolution of the architectural discipline *en métropole*. Notwithstanding the fact that a huge built legacy was produced in the immense territory of the Congo during the Belgian colonization between 1885 and 1960, the role of architects remained rather limited in time as well as in space. Not until the 1920s did architects gain a significant building expertise in the colony, and even during the post-war period, when their number increased considerably, nearly all of them worked almost exclusively in the major urban centres. If some striking projects can be found, some of which will be highlighted in this article, the Belgian colony did not really function as an architectural laboratory as was for instance the case in Morocco under Lyautey in the 1910s and 1920s or in Libya under Italian rule in the 1920s and 1930s.[4] In this

respect, the history of modern architecture in the Belgian Congo reflects that of 20th-century architecture in Belgium, which, according to Geert Bekaert, is characterised by "the art of the commonplace and the impurity of the discipline".[5]

IT IS NOT UNTIL THE 1920s THAT ARCHITECTS GAINED A SIGNIFICANT BUILDING EXPERTISE IN THE COLONY

While there are many parallels between the architectural histories of Belgium and its colony, one should not forget that colonial architecture and urbanism are always intrinsically linked to the economical, political, social and cultural specificities of colonization. Certain particularities of architectural modernism in the Belgian Congo can thus only be understood in relation to the ideologies and policies of the various coloniser' groups (government, missionaries, enterprises, settlers) and to the according responses of the colonized at the time.[6] These issues will only briefly be discussed in this article, the focus remaining on a discussion of aspects of design and technology, rather than of use and meaning. Only at the end of the article, will such issues shortly be addressed in relation to the question of how to deal with this colonial built legacy today.

THE INTRODUCTION OF MODERNISM IN THE CONGO

FROM THE VERY BEGINNING, Belgian colonialism was intended as an action of economic exploitation under the guise of a philanthropic discourse of civilisation and liberation of slavery, rather than as a *colonisation de peuplement*. Compared to other colonial territories, the number of Europeans residing in the Congo remained very limited. In the early days of colonization, architecture was considered a superfluous luxury and buildings were in most cases erected by laymen (military officers, missionaries, etc.). Where means of transportation existed, prefabricated metal constructions, produced by Belgian firms like the *Forges d'Aiseau*, were imported. During the first 20th-century decades, issues of housing design and building technology were mainly discussed among doctors, engineers and contractors in the circles of organisations such as the *Association pour le perfectionnement du matériel colonial*, rather than in the architectural milieu.[7] While the editors of the architectural magazine *Tekhné* unsuccessfully tried to start a debate on colonial architecture in 1911, it was not until the second half of the 1920s that some initiatives seemed to announce a promising future for the profession in the colony.

In 1927 the S.C.A.B., the professional organisation of architects in Belgium, founded a *comité colonial* to study the particularities of building in the Congo. Shortly afterwards, in 1928, the Ministry of Colonies organised a competition for the design of the new residence of the governor general, to be built in Leopoldville, the city that was to become the new capital of the colony.[8] The same year, Raphaël Verwilghen (1885-1963), a prominent modernist architect and urbanist, took off on a mission to the Congo to design urban plans for Bukavu and Uvira, two cities in the Kivu region.[9] In the context of the 1930 World's Fair in Antwerp, a first *Congrès d'Architecture Coloniale* was organized, including yet another architectural competition. None of these initiatives, however, led to meaningful results. Few architects participated in the 1928 competition and it was not until 1956 that the government actually started building the residence. Verwilghen's mission produced nothing but beautiful drawings and some unpublished reports on colonial architecture. Even the *Congrès d'Architecture Coloniale* did not engender a fruitful discussion on the topic. While the economic crisis of the 1930s obliterated all hope of the colony becoming a new working ground for architects, the little amount of activity deployed by the *comité colonial* indicates that the Belgian architectural milieu never really displayed a keen interest in the Congo at the time.

Still, some architects were active in the Congo during the interwar period. Most of them worked for the Public Works Department of the colonial government or the technical services of major enterprises. The *Union Minière*, for instance, had villa-like houses built for its agents by the architectural department of the *Compagnie Foncière du Katanga*. The profits to be made in the Katangese mining industry attracted many Europeans, which explains why Elisabethville and Jadotville became the first urban centres of any significance in the Belgian colony. It was here that architects for the first time began to claim their place within the colonial building market and to make an issue of questions of style and form, rather than designing buildings solely from a technocratic perspective.

Raymond Cloquet, an architect who arrived in Elisabethville in 1925, was not only one the first independently working architects in Congo but, together with Verwilghen, also was a pioneer in advocating the introduction of modern architecture in the Congo.[10] While Cloquet did make a plea for developing a building technology well adapted to local circumstances such as climate or the availability of materials, his definition of modernism remained rather idiomatic. As can be seen from his work that encompasses houses, commercial complexes and some public buildings, his was an architecture which strove for "pure" lines, planes and volumes. The pavilions constructed under his supervision for the *Exposition Internationale* of Elisabethville in 1931 illustrate his indebtedness to the sober Art Deco

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fig. 1. **Raymond Cloquet**, *synagogue*, Elisabethville (Lubumbashi), 1929.

architecture of the Antwerp World's Fair of the preceding year. As brick was locally available, Cloquet also regarded contemporary Dutch brick architecture as a valuable inspiration,[11] even though the synagogue of Elisabethville (1929), indicates that Cloquet did not completely give up the classicist tradition in his designs *(fig. 1)*.

The fact that architects working in Katanga or in Kivu were able to rely on Art Deco and modernist examples as direct sources of inspiration was largely due to the rather mild climate of those regions *(fig. 2)*. Such was not the case in those parts of the Congolese territory where a hot-humid tropical climate reigned. Some of the 1920s and 1930s architecture in Leopoldville, mostly designed by architects of the Public Works Department, for instance, illustrate how metropolitan models became stylistically contaminated due to the necessary addition of architectonic devices such as awnings, overhangs, verandas, etc. to counter local climatic conditions. During the interwar period, no particular modern idiom had yet been developed for the Belgian Congo and projects often were hybrid in character. The winning project of the 1928 competition for the governor's residence, for instance, was designed in a style reminiscent of the *arabisances*, typical of 1920s French colonial architecture in Rabat, even though its planimetric layout presented an apt site and climate-specific solution.[12] The five-storey Hôtel Métropole in Matadi (1930), innovative in terms of building technology as well as in its approach to climate, even looked, as one guidebook of the 1950s described it, like a "Florentine palazzo".[13]

fig. 2 Designer unknown (possibly Raymond Cloquet), *commercial building*, Jadotville (Likasi), late 1920s, *L'Illustration Congolaise*, no. 124, 1932, p. 3824.

NOTES

1 Udo Kultermann (ed.), World Architecture. A critical mosaic 1900-2000. Volume 6: Central and Southern Africa, Wien/New York, China Architecture & Building Press/Spring-Verlag, 2000. In this context, one can also mention that Nnamdi Elleh only devotes a very brief chapter to the architecture of the Congo Basin in his survey African Architecture. Evolution and transformation, New York, McGraw-Hill, 1996, pp. 171-178.

2 Sibel Bozdogan, "Architectural History in Professional Education: Reflections on Postcolonial Challenges to the Modern Survey", Journal of Architectural Education, no. 4, 1999, pp. 207-215 (p. 214).

3 This article is mainly based on my Ph.D. dissertation "Kongo zoals het is". Drie architectuurverhalen uit de Belgische kolonisatiegeschiedenis (1920-1960), 3 vols., Ghent University, 2002. For the main published sources on the topic, see the bibliography at the end of this article.

4 For Morocco, see Gwendolyn Wright, The Politics of Design in French Colonial Urbanism, Chicago/London, The University of Chicago Press, 1991; For Libya, see the theme issue "Architecture in the Italian Colonies in Africa", Rassegna, no. 51/3, 1992, esp. pp. 62-79.

5 Geert Bekaert, "Operating Instructions for Architecture. A Century of Architecture in Belgium", in Mil De Kooning (ed.), Horta and After. 25 Masters of Modern Architecture in Belgium, Ghent, Department of Architecture and urban Planning (Ghent University), 1999, p. 9.

6 The particular relationships between architecture and colonialism in various contexts has been studied by authors like Anthony D. King, Zeynep Çelik, Mia Fuller, Abidin Kusno, etc. See also the chapter on architecture in Okwui Enwezor (ed.), The Short Century. Independence and Liberation Movements in Africa 1945-1994, Munich/London/New York, Prestel Verlag, 2001, pp. 219-278.

7 See Johan Lagae, "In search of a 'comme chez soi'. The ideal colonial house in Congo (1885-1960)", Cahiers Africains, no. 43-44, Tervuren/Paris, CEDAF/L'Harmattan, 2001, pp. 239-282.

8 For a discussion of this competition and subsequent projects for the residence, see Johan Lagae, "'Le Petit Belge a voulu faire grand.' The troublesome construction of the Résidence du Gouverneur Général du Congo Belge in Leopoldville (1922-1960)', METU-Journal of Architecture (2000 issue, in print). I will use the names current during the colonial era to indicate cities, and thus will write Leopoldville, Elisabethville, Jadotville, Stanleyville etc. instead of Kinshasa, Lubumbashi, Likasi, Kisangani, etc.

9 See De Meulder, Kuvuande Mbote, Antwerpen, Houtekiet/deSingel, 2000, pp. 93-116.

10 Few biographical data on Cloquet have been found. For a summary of his ideas, see Raymond Cloquet, "L'Art de bâtir au Katanga", Le matériel colonial, no. 104, 1932, pp. 57-74.

11 Although Cloquet does not mention his name, we should most propably see here a reference to the work of W. M. Dudok that was widely popular in Belgium at the time. Verwilghen, on the other hand, saw the villas of F.L. Wright as a possible model, as did Désiré François, an architect who made a innovative prototype design for a "modern" Congolese house in 1934.

12 For a presentation of this project, designed by Raymond Moenaert (1882-1977), see L'Emulation, no. 4, 1929, pp. 31-34.

13 An extensive documentation on the project, the architect of which was Ernest Callebout, is to be found in L'Illustration Congolaise, no. 119, 1931, pp. 3623-3626.

14 In 1949 the Ten Year Plan for the Economic and Social Development of the Belgian Congo was launched by the government. For a contemporary survey of the plan's results, see Investir c'est prospérer. Le Plan Décennal pour le Développement Economique et Social du Congo belge 1950-1959, Brussels, s.e., 1960.

15 Apart from La Revue Congolaise du Bâtiment et de l'Industrie, published by the building industry, two architectural magazines were also launched in the Congo in the mid-1950s, namely Eupalinos and Habiter en Belgique et au Congo. They were, however, shortlived.

Period photograph (C. **Lamote**), courtesy of the Royal Museum of Central Africa.

fig. 3. Designer unknown (possibly Roger Erell), *Forescom-building*, Leopoldville (Kinshasa), 1946

TROPICAL MODERNISM IN THE CONGO

AFTER 1945 the situation changed in many respects. The war had proven Congo's worldwide importance as a source of raw materials, thus giving a major impetus to the colony's economy.[14] From the late 1940s onwards, and not in the least because air traffic between the Congo and the mother country was highly intensified by the national airway company *Sabena*, the building industry boomed, especially in the main urban centers. Apart from the major construction campaigns started by the government and large colonial holdings, small and medium size entrepreneurship developed rapidly. Many Belgian construction and real estate firms established branch offices in the Congo. Speculative market strategies quickly led to excessive prices of building lots in the major cities, resulting in a need for high-rise buildings, which in turn stimulated a further professionalisation of the building industry. The number of architects leaving Belgium for a career in the colony rose considerably in comparison to the interwar period and architectural magazines gave ample attention to construction in the Congo, as did publications that were edited by the colonial milieu.[15]

While the colonial government took on a monumental classicist approach in the design of its public buildings, modernism also started to flourish in the Congo due to the above-mentioned context. The ten-storey *Forescom* building in Leopoldville, described in contemporary sources as the first Congolese "skyscraper", was already erected in 1946. To a large extent, it was still an offshoot of interwar architecture *(fig. 3)*.[16] Its formal design was reminiscent of 1930s ocean liner aesthetics, while in terms of climatic design it still relied heavily on long established solutions and building regulations, that for instance prescribed a minimum floor height of 3,5 meters in order to produce a "comfortable" volume of air inside a room. In some respects, however, the *Forescom* building does announce the emergence in the Congo of a 1950s tropical modernism, of which the work of architect Claude Laurens (b.1908) is without doubt the most telling example.[17]

Two influences can be traced in the architecture of Laurens, as well as in a text he wrote in 1953 which was suggestively titled *Towards a new architecture in the Belgian Congo*.[18] Firstly, his projects exemplify a new design approach towards comfort control that resulted from recently developed scientific insights in the response of the human body to varying conditions of temperature, air humidity, etc., especially in extreme environments such as the tropics.[19] Important in this respect were the technical contributions on issues like sun control or natural ventilation published since the mid-1940s in leading architectural magazines such as *l'Architecture d'Aujourd'hui, Techniques et Architecture or Architectural Record* as well as in the Belgian journal *Rythme*.[20] Secondly, Laurens was well acquainted with the transformation of 1920s modernism in hot climates, for instance in the 1930s projects of Le Corbusier - the French master being a close friend of his father's, the famous French sculptor Henri Laurens – but also in the work of Brazilian architects like Oscar Niemeyer, Lucio Costa or Alfonso Reidy.

The whole of Laurens' work in the Congo is characterized by a logical and coherent approach regarding local climatic conditions. Whenever possible, the orientation of buildings was chosen according to the course of the sun at the equator, leaving south and north gables open while closing the east and west sides. The two high-rise Sabena-towers in Leopoldville (1952-1954) are the most telling example *(fig. 4)*. Otherwise, the different sides of the building were protected by multiple forms of *brise-soleil* to respond to the varied constraints of each orientation. This often resulted in a pluriform building envelope, the graphic design of which in many cases was enhanced by a bright polychromy. Natural ventilation was provided for by the use of *pilotis* and the careful balance of façade, floor plan and section. In some larger projects continuous air circulation was stimulated by using a split-level section, a concept reminiscent of the semi-duplex buildings in Morocco and Algiers, designed by Georges Candilis and Shadrach Woods in 1952-1953.[21]

In the built environment of Leopoldville, Laurens' projects stand out because of their striking formal appearance. Not surprisingly, photographs of his buildings pop up time and again in 1950s illustrated magazines in order to produce an image of the "new Congo" that was to propagate the ubiquity of modernity in the colony. The *Sabena* towers were, in a sense, the icons of the modern Congolese city, that was presented in colonial propaganda as a city pervaded by the *American way of life*. Such an image, of course, was selective. A picture of these buildings, published in the magazine *Zondagsvriend*, depicting a scene of daily life showing a Congolese

nanny escorting a white boy at the foot of the towers,[22] reminds us that this propagated modernity indeed only applied to a specific segment of the colonial culture. Like the majority of independently working architects, Claude Laurens designed exclusively within the boundaries of the so-called *ville européenne*, where living standards were comparable to those in upper class neighbourhoods in Belgium and building programmes were mainly dictated by speculative real estate and corporate business.

As in many other colonies, the urban planning practice in the Belgian Congo aimed at segregating the dwelling areas for the native population from the European part of the city. Physically, this segregation was realised by a zone neutre where no building activity was allowed, while a juridical system of passbooks allowed to control the crossing of this demarcation zone. Since the early days of colonization, the construction of *cités indigènes*, which was supervised by the government, was almost exclusively directed by issues of efficiency, hygiene and control, little effort being put into questions of aesthetics.

16 We have not been able to identify the architect of this building, but some information, kindly provided by Tristan Gilloux, suggests it might have been the Frenchman Roger Erell (1907-1986), who worked in Brazzaville (French Congo) since the early 1940s.

17 For a biography and complete catalogue of the work of this architect, see Johan Lagae & Denise Laurens, *Claude Laurens. Architecture. Projets et réalisations de 1934 à 1971*, Ghent, Department of Architecture and Urban Planning, Ghent University, 2001.

18 Claude Laurens, "Vers une nouvelle architecture au Congo belge", *La Revue Congolaise du Bâtiment et de l'Industrie*, no. 7, 1953, pp. 7-13.

19 For a contemporary synthesis of this research, see E. Devroey, *Habitations coloniales et conditionnement d'air*, Brussels, Institut Royal Colonial Belge, 1940.

20 See the following theme issues: "France d'Outre-mer", *L'Architecture d'Aujourd'hui*, no. 3, 1945, "Architecture Intertropicale", Techniques et Architecture, nos. 5-6, 1952; "Building in the Tropics", *Architectural Record*, no. 2, 1952; "Congo belge. Arts, Architecture", *Rythme*, no. 8, 1950.

21 Cf. Georges Candilis & Shadrach Woods, "Etude théorique de l'immeuble semi-duplex", *L'Architecture d'Aujourd'hui*, no. 46, 1953, pp. 87-91.

22 Zondagsvriend, 30 May 1957, p. 19.

23 See De Meulder, Kuvuande Mbote, op. cit, pp. 185-207. For an analysis of the workers' camps, see Bruno De Meulder, *De kampen van Kongo*, Amsterdam, Meulenhoff, 1996.

fig. 4. **Claude Laurens**, *Sabena-towers*, Leopoldville (Kinshasa), 1952-1954.

Period photograph. © Archives Claude Laurens

The *cités indigènes* that were designed in the 1950s by the Office des Cités Africaines (O.C.A.) in order to tackle the increasing problem of the *bidonvilles* around the major urban centres, however, are an exception. The architects who worked for the O.C.A. were mainly recruited from the Brussels' school of *La Cambre*, which at the time had an explicit modernist orientation. Consequently, the O.C.A.-*cités* are striking examples of tropical modernism. As Bruno De Meulder has argued, they have a lot in common with the 1920s *Siedlungen* in Frankfurt designed under Ernst May, but in their extremely rationalized character they are also reminiscent of the interwar workers' camps built by government-related holdings in the Belgian colony.[23]

IN SEARCH OF A CONGOLESE VERNACULAR

THE O.C.A. *cités* received international acclaim, as did the work of Claude Laurens.[24] Other notable work, such as that by Jan Maes (b.1928), Marcel Molleman (b.1924) or Charles Van Nueten (1899-1989) received much less attention. The Collège du Saint-Esprit in Usumbura (Burundi), built between 1952 and 1961 by Roger Bastin (1913-1986), is one of the most striking realisations which have fallen into oblivion *(fig. 5)*.[25] To use a terminology recently coined by Alexander Tzonis and Liane Lefaivre, one could describe most of this postwar modernism in the Congo as "tropical architecture" (a notion opposed to "tropicalist architecture"), because it focuses almost exclusively on climate and does not fully engage with "broader problems of place, tradition, memory, community".[26] The category of "critical regionalism", on which this difference between "tropical" and "tropicalist" is based, is, of course, a tricky one as it implies an *a priori* critique of the so-called International Style. Still one can legitimately wonder if architects working in the Belgian Congo ever tried to be regionalist in terms of culture.[27]

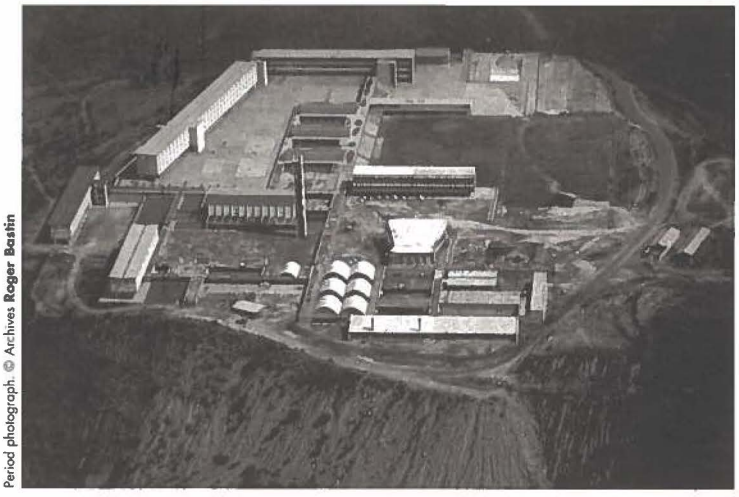

fig. 5. **Roger Bastin**, *Collège du Saint-Esprit*, Usumbura (Bujumbura), 1952-196.

Period photograph. © Archives **Roger Bastin**

In the line of Eurocentrist thought that viewed Africa as a continent without history, the whole debate on building in the Belgian colony was directed by the argument that the Congo lacked a proper architectural tradition. The Congo was seen as an architectural *terre vierge* and throughout the colonial era, Congolese building forms were not considered a viable source of inspiration for developing a contemporary colonial idiom. This constituted a challenging task for architects who had to design a Congolese section at international and universal exhibitions, as such events asked for an "authentic" display of the colony. It was not until the 1930s that architects succeeded in inventing a convincing architectural representation of the so-called "traditional Congo".[28] In the colony itself, however, little effort was made to establish a link with Central African culture. Such efforts mostly remained limited to an architectural decoration that made use of patterns typical of Congolese textiles and artefacts.

Still, some noteworthy efforts to define a Congolese vernacular can be traced. In 1950, for instance, Julien De Ridder (1891-1963) designed several churches for the Congo whose sculptural architectural appearance was vaguely reminiscent of traditional African dwellings.[29] The exhibition architecture of the 1955 *Foire de Stanleyville*, built by Paul Amaury-Michel (1912-1988) and Marcel Molleman, made use of lightweight structures that incorporated a subtle reference to the fishnets of the *Wangenia*, a local tribe famous for its fishing skills.[30] A particular attempt was made by the group of architects working under the name *Yenga* in their design for the cultural center of Elisabethville (1953-1960), a project that encompassed a theatre, a meeting hall, a museum, a music school and an open-air square for performances *(fig. 6)*.[31] Crucial in this respect was the fact that the founder of the group, Claude Strebelle (b.1917), had been a collaborator of Henri Lacoste (1885-1968), Belgium's first architect to display a genuine interest in Congolese culture.[32] Further more, Strebelle was art director of *Jeune Afrique*, a local magazine that was instrumental in the promotion of contemporary Congolese artists such as the painters and sculptors of the internationally renowned workshop of Pierre Romain-Desfossés in Elisabethville.[33] The interior decoration of the theatre was done by such local artists, while the architecture of the cultural center moved away from the rigid geometry of post-war tropical modernism towards a more sculptural and poetic treatment of mass and architectonic elements, that incorporated abstract formal references to animal and vegetal motifs.

A favorable occasion for the defining of a Congolese vernacular was offered in 1959, when an international competition was organised for the *Centre Culturel du Congo belge*, to be built in Leopoldville.[34] The competition attracted 126 participants from 25 countries, among

whom some designers of renown such as Kunio Maekawa and Sverre Fehn. Contemporary comments reveal that a lot of entries failed in terms of climate. Others fell into the trap of either "folklore" or "architectural fashion", ranging from Mies to Niemeyer. While the jury, presided by none other than Richard Neutra, finally decided not to grant a first prize because no participant had succeeded in defining a "valuable monumental architecture" for the Belgian Congo, it did appreciate the daring formal approaches of some designs, especially among the Japanese entries. While only the project of Takamasa Yoshizaka has received attention later on,[35] it was the Belgian architect Pierre Humblet (1918-1987) who got the commission towork out his scheme because of its sculptural treatment, its innovative construction options, as well as its urbanistic qualities. The cultural center, however, would never be built, in part because in June 1960 Congo's independence was declared.

A "SHARED" HERITAGE?

DESPITE the numerous turmoils of the postcolonial era, the larger part of the buildings constructed in the Congo during the colonial era still exists, be it that the condition of many a construction is deplorable because of a lack of maintenance. Other constructions have been thoroughly altered to fit new uses and social practices, the *cités* designed by the O.C.A. being a case in point.[36] While one can easily sustain the argument that documenting the history of this built legacy of the colonial era is important for a better understanding of the history of twentieth century architecture, the question unavoidably rises of how to deal with the buildings themselves nowadays. The harsh economic conditions in the Congo leave little doubt that there are other priorities than starting an architectural conservation programme. Drawing on recent shifts in conservation policies, in particular the growing attention for the "intangible heritage", one could make a plea however for documenting the "embedded memories" of this legacy.[37] Because of its embedded memories the built legacy of the colonial era can be considered a "shared" heritage, shared by the former colonized and colonizers. For as Zeynep Çelik has argued, using Pierre Nora's notion of *lieu de mémoire*, the "symbolic sites for the colonizer's culture continued to maintain their significance in the postcolonial era as their capacity to change and acquire new meanings allowed them to act also as places of memory for the colonized".[38]

To give but one example in the Congo, the building that was finally constructed as the residence of the governor general between 1956 and 1960, immediately became the seat of parliament of the new nation after independence. Still known today as the *Palais de la Nation*, the building

24 Richard Neutra favourably commented on the O.C.A.-cités, cf. Bulletin de l'Information de l'O.C.A., no. 1, 1959. Claude Laurens' African work was published in *L'Architecture d'Aujourd'hui* (no. 47, 1953, pp. 86-88; no. 70, 1957, pp. 22-23) and is mentioned in Udo Kultermann's *Neues Bauen in Afrika* of 1963 (Tübingen, Wasmuth Verlag, p. 23).

25 The architecture of this college and its history is discussed extensively in Johan Lagae, "Kongo zoals het is", op. cit., pp. 357-481. At the time of its construction, Usumbura (nowadays Bujumbura) was the capital of Ruanda-Urundi, which was not a colony but a mandate territory under Belgian rule.

26 Alexander Tzonis, Liane Lefaivre & Bruno Stagno, *Tropical Architecture. Critical Regionalism in the Age of Globalization*, Chichester, Wiley-Academy, 2001, pp. 14-16.

27 It can be noted here that there was no education for native architects in the Congo until 1958, although Congolese had been trained as draughtsmen during the 1950s. The "tropical" approach of Paul Dequeker (b.1930), who worked in the Congo from 1958 till the late 1990s and built an impressive amount of churches, has had an enormous impact on the architectural formation in the Congo ever since. For his approach and work, see Paul Dequeker & Mudimubadu Kanene, *L'Architecture tropicale. Théorie et mise en pratique en Afrique tropicale humide*, Kinshasa, Centre de Recherches Pédagogiques, 1992.

28 Cf. Johan Lagae, "Displaying Authenticity and Progress. Architectural Representation of the Belgian Congo at international Exhibitions in the 1930s", in *Third Text*, no. 50, spring 2000, pp. 21-32.

29 See Anne Van Loo, "Page Coloniale", in Maurice Culot et. al., *Paysages d'Architecture*, Brussels, Archives d'Architecture Moderne, 1986, pp. 52-55 (p. 55).

30 See Pierre-Louis Flouquet, "Urbanisme et architecture à la Foire de Stanleyville", *La Maison*, no. 9, 1955, pp. 272-274.

31 For a brief overview of the work of Yenga, see Rythme, no. 23, 1957, pp. 14-18. Apart from Strebelle, the architects Jean Leloup (1922-1988) and A. De Buyl (b.1921) were the main members of Yenga.

32 Henri Lacoste was the author of the remarkable Congo pavilion at the 1930 Exposition Coloniale Internationale in Paris.

33 On this magazine, see Pierre Halen, "La première revue 'Jeune Afrique' ou les ambivalences d'un projet culturel néo-colonial au Congo Belge (1947-1960)", in A. Vigh (ed.), *L'identité culturelle dans les littératures de langue française. Actes du Colloque de Pécs*, 24-28 avril 1989, Parijs, 1989, pp. 203-216.

34 For a presentation of some projects and an extensive jury report, see Louis-Herman De Koninck, "Le Centre Culturel du Congo Belge à Léopoldville", *Architecture*, no. 28, 1959, pp. 226-233.

35 The project by Yoshizaka was published in Udo Kultermann's book *Neues Bauen in Afrika* of 1963 (p. 23 & 66-67) and in the Africa issue of Edilizia Moderna of 1966 (no. 89-90, p. 128).

36 Recent field trips to Lubumbashi (August 2000) and Kinshasa (December 2002) enabled us to verify that nearly all buildings of the colonial era have survived in these cities. Costa Petridis and Nancy Hunt kindly provided us with information that this also holds true for other regions. For recent photographs of the former Leopoldville, see Marie-Françoise Plissart & Bruno De Meulder, "Kinshasa, the Hereafter of Modern Architecture", in Herbert-Jan Henket & Hilde Heynen, *Back from Utopia. The Challenge of the Modern Movement*, Rotterdam, 010 Publishers, pp. 160-173.

37 See in this respect the theme of the 13th General Assembly of ICOMOS as it was originally announced in the autumn of 2001: "Place, Memory and Meaning. Valuing Intangibles". Both title and theme were later redefined, as the meeting was finally held in Madrid in December 2002, and not in Harare, Zimbabwe, as planned.

38 Zeynep Çelik, "Colonial/Postcolonial Intersections. Lieux de mémoire in Algiers", *Third Text*, no. 49, 1999, pp. 63-72 (p. 63).

39 The many monuments of the former colonial capital have all been removed and replaced by African sculptures, but they exist until today and are kept in two warehouses at the outskirts of Kinshasa.

40 Adam Hochschild's book King Leopold's Ghost. *A Story of Greed, Terror, and Heroism in Colonial Africa* (1998), as well as Raoul Peck's recent movie Lumumba (2000), have had a major impact on the current perception of the Belgian colonisation in Central Africa.

Period photograph. © Archives Nadine Rouvenoy.

fig. 6.
Yenga, *Cultural center*, Elisabethville (Lubumbashi), 1953-1960.
Main view of the theatre, built between 1953 and 1956,
that forms part of a cultural center which further encompasses a museum,
a meeting hall, a music school and a square for open air performances.

appeared on banknotes and stamps during the Mobutu era and is intrinsically linked with Congo's postcolonial history, as it was the site of major political events. Very recently, a mausoleum of the late president Laurent D. Kabila was erected in front of the building, thus changing completely the meaning of what was once the focal point of the monumental axis of the capital of the Belgian Congo, namely the square in front of the residence where until 1960 an equestrian statue of King Leopold II stood.[39] "In a country where the availability of written sources for historical research (publications, archives) is often problematic for a number of reasons, engaging in a recollection of memories embedded in the remains of the material culture of the colonial era might provide a useful tool to start coming to terms with what has come to be seen as one of the most controversial colonial episodes of the 20th century".[40]

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Architecture and construction technology in West Africa

IN THE 1950s AND 1960s

Creative architecture cannot be achieved without the knowledge of materials and how they are assembled. We architects from Europe and the USA who went to West Africa in the 1950s, had to appreciate that existing materials and techniques of building were very simple. The choice was limited and the builders used basic construction methods, employing local labour.
As a prelude to the rapid changes in the building industry imposed by political devolution at that time, it is necessary to give some background history.

JOHN **GODWIN**

AT THE BEGINNING of the nineteenth century, it was only in the larger towns along the coast that buildings erected by European techniques could be seen. For example Lagos, which developed more than most, had an influx of builders in the second half of the nineteenth century, mainly from Brazil, who had learnt their skills under the Portuguese. They built very attractive domestic type buildings in a Mediterranean style, constructed in local burnt brick and mainly imported timber with plastered lime mortar walls.[1] Roofs were finished with palm fronds or timber shingles until the 1850s, when corrugated iron, known locally as "pan", was imported, which, to this day, remains the most visible heritage of that period in West African towns and villages.

DURING COLONIZATION, European administrations needed buildings and generally these needs were met by importing timber and metal prefabricated structures which had been designed to suit the hot-wet coastal climates. Further inland, particularly closer to the desert, where the climate was drier and cool at night, heavy construction in the region's mud was generally adopted. Within a relatively short period of time, however, works departments were set up, with government engineers in charge of designing and constructing roads, bridges, drainage and eventually public buildings. Thus in Lagos around the turn of the century, a fine secretariat, law courts and the governor's lodge and even a lighthouse had been constructed. At the same time the railway was under construction and an power station provided light on the Island. Lagos was the second city in the world to be illuminated by electricity in 1890. These works demanded higher skills in the supervisory grades than could be found locally and therefore specialists were brought in together with the necessary tools and materials. Consequently locally available artisans had to be trained by European standards. This formed the backbone of the construction industry in later years.
Between the wars, the Public Works Departments, "PWD" as they were known, became "design/build" organizations

and their architects and engineers developed standards for construction in styles of design which were influenced by Europe. Hence, the colonial classical style of the 1900s consisting of brick, pre-cast concrete and pitch pine gave way to the more solid detailing found in public buildings in the 1930s, where cement was the dominant material.

THE IMPORTATION of British bricks had ceased and local brick was considered inadequate. Therefore, cement became the prime building material, first imported in timber barrels and later in bags. The PWD architects produced meticulous standard drawings incorporating standard pre-cast concrete elements and architectural details which could be cast on site by the in-house labor force supervised by provincial engineers and foremen who were responsible for construction. In addition, the PWD produced timber from its own sawmills and could make items of joinery such as windows, doors and furniture. By the 1940s, the governments of the West Coast territories had a well-organised construction industry to meet with a relatively small demand for public building projects and housing.

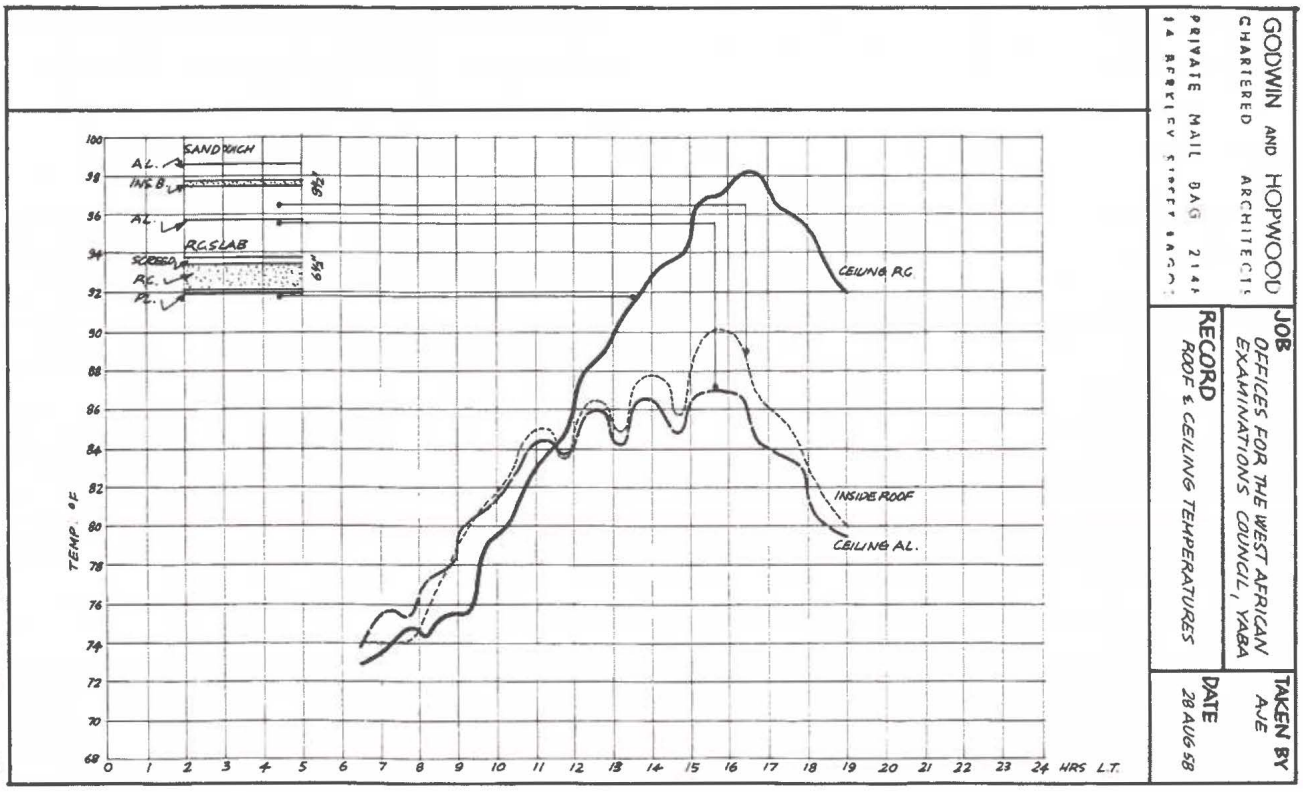
While the PWD was a law unto itself, private sector construction was subject to local building byelaws which came into force in the 1920s. Consequently the work tended to imitate the PWD standards. Around 1930, there was a growing demand for private commercial buildings and managerial housing in the new residential areas. This encouraged an influx of private construction firms, notably expatriate Italians, who brought with them construction skills and introduced some new materials and techniques.

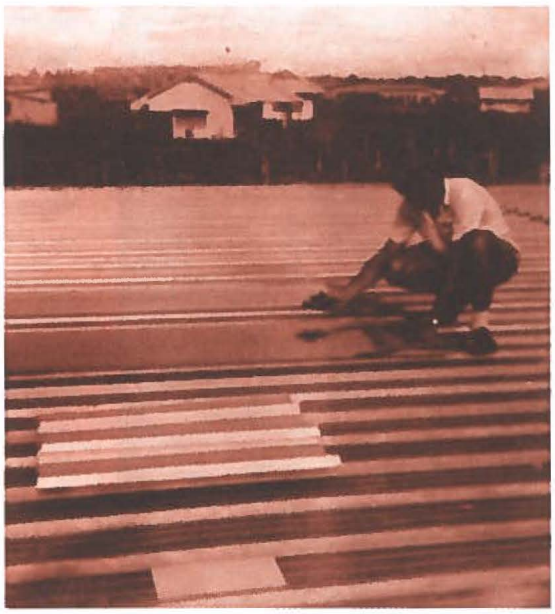
POLITICAL DEVOLUTION on the West Coast moved rapidly after the Second World War and brought a rash of new construction on a scale hitherto unknown. Although the PWD tried to contain the situation, it increasingly became dependent on the private sector both for contractors and professionals. For example, in Nigeria in 1948, the architects Maxwell Fry and Jane Drew were commissioned to design the University College, and Watkins-Grey the Teaching Hospital, both at Ibadan. The contractors were Cappa and D'Alberto and Costain respectively, both projects being the largest building complexes in the territory at that time.

At the same time, there was a growing awareness of the need to improve comfort conditions in tropical buildings as well as to develop materials appropriate to the functional requirements of building types otherwise unknown in the territory. Of course, the West Coast was only one of many territories in the tropics which was undergoing political change, and as a part of their development programmes both the French and British governments devoted some of their research budgets to advising on construction in these territories.

In Nigeria, there already existed a regional research center called the Tropical Testing Establishment at Port Harcourt and this was consolidated into the West African Building Research Institute, headed by Ian Small, with its headquarters at Accra, Ghana,.

fig. 1. Experimental roof at *West African Examinations Council.*
Graph of temperatures to compare experimental sandwich with concrete slab roof using surface mounted flat thermometers. Recorded August 1958, architects **Godwin and Hopwood**.





© J. Godwin, G. Hopwood, T. Kuye

figs. 2-3. Comparisons of **reflectance values** for weathered and un-weathered asbestos cement and aluminum roof sheets using a photographic exposure meter. Recorded April 1960, architecs. **Godwin and Hopwood**

It was founded in 1952: "to undertake research into and investigation of problems and matters relating to building and housing and the testing of materials and structures and to provide information and advice relating thereto."[2] The organisation was financed by the governments of Nigeria, the Gold Coast (later Ghana) and Sierra Leone. Some private professionals such as Godwin and Hopwood were assigned to its technical committee and regular conferences were held in Accra. Later "WABRI" was dismantled and each of the participating countries reverted to founding independent research centers which, although an inevitable outcome of nationalism, was wasteful and has proved unproductive. In the meantime the *Colonial Building Notes*, first published in 1950 under the direction of G.A Atkinson, became the *Overseas Building Notes* which ceased publication in 1965.[3] These notes were a major source of information for building professionals and generated a useful dialogue between them and the research centre at Watford in England; O.B.N n° 69 carries the illustration of an experimental aluminium roof designed by Godwin and Hopwood in 1960[4] and n° 96 published an article about the construction of a school in Lagos by Alan Vaughan Richards *(figs. 1/3)*. The French equivalent was an excellent textbook produced by the *Travaux Publiques* around1966.

CONSTRUCTION during the 1950s and 1960s changed rapidly with demands for higher standards of design and the need for accelerated construction. At the same time despite their protests, clients became conditioned to the resulting increased costs. The early buildings in Ghana and Nigeria, mainly by Fry/Drew, PWD and Nickson & Borys, were low rise in rendered block-work, employing timber roof structures covered with asbestos-cement sheets and joinery, including timber doors and windows. Pre-cast concrete was used for sun-breakers and other non-structural or decorative features.

It is interesting to note that Legon University near Accra (architects Harrison, Hubberd and Barnes), built at about the same time as University College, Ibadan *(fig. 4)*, was considered "old fashioned" with its symmetrical layout, use of rough render, clay *pan tiles* and unpainted iroko timber joinery. With hindsight, we see this today as a well considered and practical design employing high quality indigenous materials and easier to maintain than UCI. This pseudo Spanish style is much sought after in Nigeria today.

Further north in 1953, Richard Nickson was constructing practical and climatically suitable houses in concrete and stone, with flat concrete roofs protected by pre-cast panels and standard English steel casements. At the same time he started Onitsha cathedral using large quantities of local brown stone, pre-cast concrete and local wrought iron for which Igboland is well known.

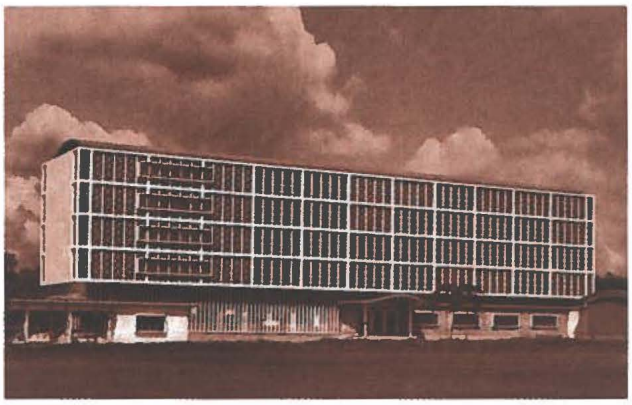


fig. 4. University College, Ibadan, Nigeria. Library, 1956, architects **Fry, Drew and Partners**. (Source: Udo Kultermann)

At this time, finishes which included cement paint on rendered walls and colored cement floors, were substituted by "tyrolean" wall finish and terrazzo floors, first made with sea shells, and later with imported marble chips.

BY 1960, multi-storey office buildings like Hanbury House in Lagos (six floors) *(fig. 5)*, and Independence House (over twenty floors) *(fig. 6)*, had lifts, special windows,

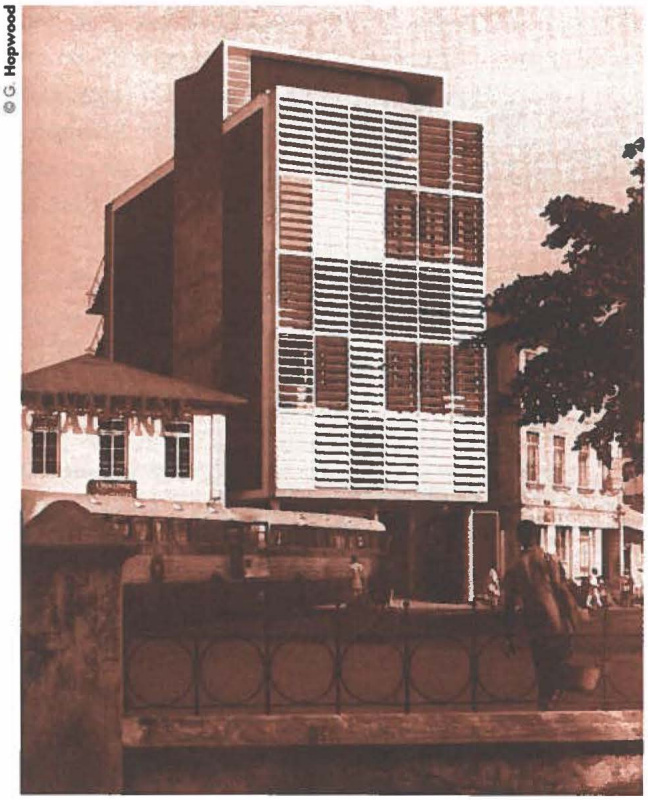


fig. 5. Allen and Hanbury Offices, Lagos, Nigeria. 1959 (sunbreakers and windows designed by the architects and fabricated by Henry Hope Birmingham, UK), architects **Godwin and Hopwood**. (Source: Udo Kultermann).

fig. 6. Independence House, Lagos, Nigeria, 1961, architects **Federal Ministry of Works**.

aluminium sun-breakers, and extensive external surfaces laid with mosaic tiles as well as central air-conditioning plant. Both structures made use of the new special structures regulations permitting high-stress reinforced concrete introduced in Lagos in 1959.

Those of us who had been brought up under the influence of Le Corbusier found the ultimate realisation of the his style in the use of simple materials and predominantly reinforced concrete structures, and consequently our early designs adopted simple shapes with generous overhangs and *brise-soleils*. But we found that there were other problems to be solved and we started developing new ideas for roofs and windows. Because of time constraints we had to use purely empirical solutions backed with growing experience and in some cases actual experimental work. Already, there was a growing amount of technical literature available from Watford and organisations such as the Texas Experiment Station and their counterparts in India, Australia and South Africa.

The first Conference on Tropical Architecture was held in London in 1953, and proved to be the watershed of worldwide knowledge which expanded rapidly as construction took off throughout the soon-to–be-independent colonies. Our practice acquired instrumentation and we carried out numerous experiments to assess the climatic performance of various types of construction and to assist in formulating standards for breeze control, rainwater disposal and sun-shading *(fig. 7)*.

WE CONSTRUCTED our own sun-path charts and protractors and started teaching the theory in the following schools: the AA, which later became the School of Tropical Architecture, and Zaria where Nigerian students could study up to the RIBA intermediate level. It was inevitable that this work, together with the work of several other young architects, led to the creation of a style of architecture which was eventually identified as West African and was broadcast in books by Maxwell Fry and Jane Drew (1956),[5] The Architectural Press (1961)[6] and Udo Kultermann (1963).[7] Other publications followed the growing interest in tropical architecture.

The first serious textbook on housing, *Tropical Housing*, was produced by David Oakley in 1961, and perhaps the state of the art at that time is evident from the author's preface which states: "This is an interim stage in building up a body of knowledge on the problems of building in warm climate countries. Any book which attempts to survey almost the whole field as it relates to house design cannot help but be a personal one. It is a survey in the light of the author's experience".[8]

AS HAPPENED in the nineteenth century, the search for materials to give form to new design solutions produced a large export trade from Europe, but with the difference

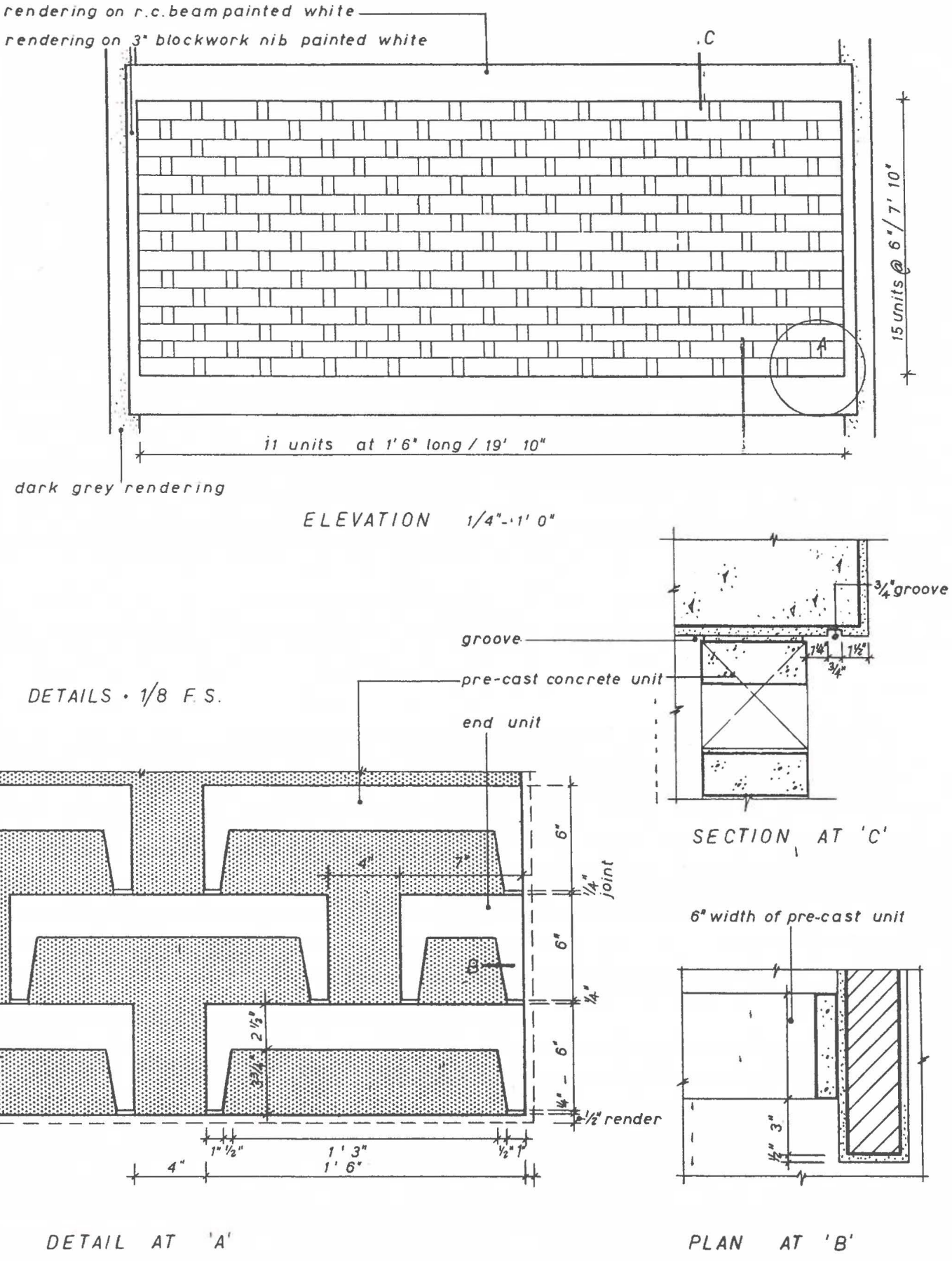


fig. 7. **Pre-cast concrete sunscreen elements** used on a house in Lagos and developed for various projects including the *Northern Police College*, 1962, architects **Godwin and Hopwood**

© J. **Godwin**, *Architect and Building News*, Jan. 9, 1963.

that the architects involved, particularly those on the ground, were leading the field by influencing the designs and specifications of the merchandise. Thus Godwin and Hopwood were involved in pioneering the design and producing two important elements in the 1950s, the "low pitch" corrugated aluminium roof and the "projected window". As another example, James Cubitt developed a distinctive large pivoting ventilator, first seen at Kumasi *(fig. 8. Reproduced in Hannah Le Roux, p. 85, fig. 5)*. Again led by architects, engineers developed foundation systems to enable tall buildings to be built on the soft and swampy ground in central Lagos, where land values had started to soar, and also the use of high-stress concrete. These required new legislation and monitoring methods which enabled even small local contractors to compete with the expatriate construction firms. More importantly, it improved the overall standards of construction across the country because architects took the view that if good work could be achieved in the large cities, it could be replicated in "up-country" locations. Soon good quality buildings began to spring up in areas hitherto regarded as too backward to sustain such standards. These results were achieved by much closer supervision by architects. Many indigenous contractors cut their teeth in this way.

But construction costs were much higher than in the United Kingdom, due to the need to import finishing materials and sophisticated plant. Also labor was not cheap, it being reckoned that to produce the same progress in most trades, six Nigerian artisans were required against one in Europe. In a report commissioned by Godwin and Hopwood in 1979 covering the previous 10 years, the differential between UK and Nigeria average costs during the period widened by almost 100%, to become twice those of the UK.[9] This led to a mounting criticism of the industry, accused by politicians of profiteering in a seller's market. Consequently, these politicians pressed for the use of traditional, "local materials" without understanding the limitations of those available.

In the meantime, however, many of the firms exporting to the West Coast saw opportunities for investment in local industries and so set up plants locally. These were a great success particularly as most goods were manufactured to the new European standards then being imposed. By adapting these goods to local needs and having them monitored by the regional research centre in Accra, the construction industry could look forward to a locally sustained development programme which had the added advantage of developing local raw materials for producing cement products, clay products, aluminium, timber products, glass, paints and plastics. In 1966, Godwin and Hopwood, working through a sister organization called *Nigeria Development Consultants*, were commissioned by the Nigerian government, in partnership with Robert Matthew Johnson Marshall, a UK firm of architects, to implement the first International Development Agency Education Project. The first stage of the work was the setting of standards for design and construction for over 200 secondary schools and technical training schools throughout the Federation of Nigeria. The resulting Report10 drew on the accumulated knowledge, both professional and commercial, of the construction industry at that date. The Report also focused on perceived deficiencies and providing standards to correct them in the light of existing and predictable future requirements. These remain the only comprehensive standards available today in Nigeria.

PART OF the Report included an "Assessment of Locally produced Building materials and Components and Common Imported Materials". This was analysed under "Manufacture, Quality and Distribution" and covered the following (as of 1966 in Nigeria).

1.0 LOCALLY PRODUCED MATERIALS

.01 Aggregates for concrete and rendering
.02 Aluminium products for roofing, windows and sun-breakers.
.03 Asbestos cement for roofing and accessories.
.04 Cement
.05 Clay products for flooring and walling.
.06 Concrete products for flooring and walling.
.07 Furniture products for domestic and commercial use in metal and wood.
.08 Glass products including sheet glass and mosaic.
.09 Locks and ironmongery assembled from imported components.
.10 Metal doors, windows and sun-breakers.
.11 Paints manufactured from imported materials.
.12 Plastics for plumbing and conduits, moulded items and floor tiles.
.13 Fabricated steel from imported rolled sections, including plating and galvanising.
.14 Timber conversion including plywood special veneers and pressure impregnation.
.15 Marble, cut and polished for floors and walls. Terrazzo tiles.

2.0 IMPORTED MATERIALS

mainly from Europe, USA, Middle East and India, which included the following:

. Acoustic boards, air-conditioning plant, adhesives, aluminium products, asbestos cement products, builder's hardware, building paper, chemical products, cement finishes, cast-iron pipes and fittings, copper piping and brassware, patent ceilings,

. Electrical equipment and fittings, fire fighting equipment, roofing felt, glass products, galvanised pipes and fittings, glazed wall tiles, water heaters, insulating materials,

jointing materials, lifts, mosaic tiles, marble, plastic products, preservatives, pumps and other mechanical equipment, pitch fibre, paints and special coatings, sanitary fittings, steel products and sections, telecom equipment.

ONE of the important benefits of locally produced materials was the reduction construction periods. Hitherto, overseas manufacturing delays or lengthy shipping periods ruled out the use of special items for small contracts unless clients were very patient or prepared to order them before the main contract was let.

Any doubts about the quality of local manufacture at that time were dispelled because the products were based upon British or other recognised standards and carried brand names such as Crittall Hope (windows and doors), Pilkington, (glass products), Parkes (locks and door furniture), ICI (paints and special coatings), British Paints, Alusuisse, (aluminium windows, doors and sun-breakers), Blue Circle (cement and paints), Dorman Long (structural steel), Shanks and Twyfords (sanitary fittings), Dunlop (flooring).

On the other hand, some imported materials originating from questionable sources were not covered by any internationally accepted standards and there were failures. Therefore it became necessary to ensure that all mandatory tests were carried out rigorously. Paints and reinforcing steel were regular culprits on the reject list. Today, unless materials are especially imported from a well-known source, it is likely that they will be sub-standard or even fraudulently manufactured by copying or using known brand names illegally. Guarantees are non-existent and it is suspected that even well known firms export what has become "bazaar quality" materials in order to compete in the market. Local manufacture is much reduced, and those still producing have dropped their international brand names and are cutting corners to reduce the high cost of imported constituents. Therefore, a prudent designer will ensure that he carefully researches the materials he wants and ensures that they are ordered in good time.

THE 20 YEARS from 1945 to 1965 were more remarkable for experimentation by architects than perhaps at any other time, either before or after. There seemed to be no prejudice by clients towards the modernism associated with tropical building which actually took the "old stagers" by surprise. More often than not, clients were prepared to place more reliance than hitherto upon professionals to provide answers to their building requirements, in an environment which they perceived to be not far removed from the "white man's grave". It also seemed that most of those involved were young but experienced enough to build upon their knowledge in order to explore new and practical solutions both in design and the use of materials. Moreover, it appeared that scientists went all out to support the professionals in the field and there was no lack of advice and encouragement from Watford or Accra, if you cared to consult with them.

THESE FACTORS undoubtedly pulled the building industry together, and architects were seen as innovators and leaders to be followed rather than opposed, which contrasted with the growing adversarial stance of contractors in the UK, which at that time made Nigeria an attractive workplace for architects. In "Nigeria, Building in a Boom Economy", written in 1981, I concluded with: "In a country where there will be a first time for most things, design and construction will provide ample opportunities for the inventive and fertile designer: surely this must be an architect's paradise?" Nigeria has lost a bit of leeway since the 1970s but those opportunities still exist.

JOHN GODWIN *is an architect in private practice in Lagos Nigeria. His partner since 1955 is Arch Ms Gillian Hopwood and they have been joined by two other partners, Arc. Mrs. Biola Fayemi and Arc. Tunde Kuye. The firm practices under the title "GHK Architects and Urban Planners". The practice has built throughout Nigeria and is well known for its educational and commercial & industrial building. One of the unique aspects of the practice is the way in which it has assimilated Nigerians over the years and can look forward to a future when GHK will be fully Nigerian and continue developing its design ideas and professional approach which have made a significant contribution to the architecture in the country. Prof. Godwin teaches post-graduate courses at the Department of Architecture, University of Lagos, Nigeria and was recently invested by the President of the Republic with the Order of the Federal Republic (Officer).*

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The **Lagos hotel affair:** negotiating **modernism**

IN THE LATE COLONIAL DOMAIN

The circumstances surrounding the 1955 commission for the Hotel Lagos in the British West African colony of Nigeria, disclose the complex ideology, alliance and operation of Modern Movement architecture. Those sometimes contradictory aspects of Modernist practice are revealed in the written no less than in the visual and structural fabric.

RHODRI **WINDSOR-LISCOMBE**

COMMISSION

LATE IN 1954 designs for a new hotel conforming to international tourist standards were commissioned by a consortium led by the British colonial government *(figs. 1 and 2)*. The commission was to be financed from surpluses accumulated by the Produce Marketing Boards established by the colonial government and the recommendation of the International Bank of Reconstruction and Development.[1] To be sited on Victoria Island at Lagos, the hotel was intended to continue the economic development initiated during the strategic and commercial restructuring of the British West African colonies in the Second World War.[2]

The Council of Ministers, recently established under the colonial administration in conjunction with gradual devolution of imperial control and Africanization of government, voted £500,000 for the project. A further £200,000 had been committed by local commercial interests. These represented a financially and ethnically diverse group of individuals and institutions celebrated in such colonialist documents as "The Red Book of Africa" or "The Nigeria Handbook" but criticized by such writers as Graham Greene in "The Heart of the Matter" (1948), set in another British West Africa "possession", Sierra Leone. The hotel was intended to stimulate investment, especially from the United States, and tourism (a less antagonistic manifestation of the modern appropriation and consumption of a distant place). The International Bank had recently endorsed the Colonial Government's objective of assisting the repayment of British war debt, and the maintenance of the Sterling Area against not only American but also incipient European and Asian competition. The hotel signaled an attempt to transfer financial initiative to centers of the already imagined post-colonial nation while yet depending on the mechanisms of colonial technical and monetary advantages.

The commission thus involved an uneasy alliance of political and aesthetic ideology. Denis Pugh, the project architect for the firm selected to draft the designs, the London-based Architect's Co-Partnership [ACP], was putting form to both the continuation and the disruption of colonial practices. The conceptual and material systems of Modern Movement architecture were tasked with accommodating the emergent independent indigenous culture as well as the westernized frames and forms to which it was still tied. The hotel functional disposition within a concatenated rectilinear composition, direct statement of structure,

minimal ornament and use of primary colors in the decorations, corresponded with Western Modernist Abstract functionalism but also with the formal abstraction in African art and craft. Furthermore it imaged a locally responsive universalism privileged as a consequence of the conflictual nationalism manifested in the World Wars. That Janus trope was evident in the illustration of the ACP scheme for the Lagos Hotel in the May 30, 1955 issue of "New Commonwealth", the popular magazine published in Britain with the endorsement of the Colonial Office. It described the hotel as proof of the reconfiguration of British imperialism into decolonization through the (unlikely) adaptation of the "Westminster model" of governance to regional custom. Earlier, in November 1952, the magazine's editor in an issue including a review of Maxwell Fry and Jane Drew's recent Modernist educational buildings in the Gold Coast [Ghana], declared: "Imperialism has gone; colonialism is going and has already changed into trusteeship preparatory to partnership."[3] However, the continuing imposition of distant authority was signaled by the selection of the Costain Construction Company as contractor for the Lagos Hotel. Costain, together with Wimpey, Taylor Woodrow, John Laing and Holland, Hannen & Cubitt were awarded considerable business via the Crown Agents under the Colonial Welfare and Development Act (1943). An associated agency, the Colonial Development Corporation, together with the 1951 Colombo Plan, financed projects designed to boost colonial resource exploitation, employ British technology and sustain British manufacture.[4]

CIRCUMSTANCES

DEPRESSED ECONOMIC conditions in Britain were also a factor in ACP's decision to set up practice in West Africa. Besides the constraints of high debt, the programs of social architecture instituted by the Labour Government were reduced after the 1951 general election of the Conservatives but without a corresponding reduction in building regulations and restriction.[5] They joined such design and engineering firms as James Cubitt or Ove Arup and similarly increased their earnings, expertise and repute in Britain; the new multi-ethnic Commonwealth was still regarded as a positive political and cultural enterprise, certainly up to the completion of two major Modernist buildings in the erstwhile imperial capital, New Zealand House and the Commonwealth Institute (Martin and Matthews) just prior to serious negotiations to join the EEC in the early 1960s.[6]

BY CONTRAST the West African colonial administrations applied a substantial quotient of the surpluses from natural resource production to infrastructure investment, especially in educational and regulatory architecture. The eight senior ACP partners saw an opportunity to extend their experimental and socially progressive principles of design. They had founded the partnership in 1938 when recent graduates of the Architectural Association intent on fulfilling the radical ideological and aesthetic aims of the Modern Movement. Their original name for the firm had been The Architect's Collaborative but this was rejected as politically inappropriate by the Royal Institute of British Architects.[7] In the immediate post-1945 period they won high professional regard in the chief Modernist building types: low-cost housing and schools. Additionally, the design and lightweight concrete shell roof structure of their Rubber Factory in the New Town of Brynmawr in South Wales (1946-47) represented their advanced abstract functionalist idiom - one carried further in the series of commissions they received for the 1951 Festival of Britain. The Festival promoted a new vision for British society that included the devolution of imperial power in conjunction with the implementation of welfare state policies in the United Kingdom, on a restricted scale in the Colonies, plus an emphasis on national technology and scientific expertise in place of militarism.

MORE EXTREME CLIMATIC CONDITIONS OF WEST AFRICA AFFORDED AN OPPORTUNITY TO IMPLEMENT AND MODIFY MODERNIST TENENT

CONTEXTS

THE INTERSECTION of a socialist modernization with colonial liberalisation centered on a significant increase in the number of technical appointments to the African and Asian Commonwealth by the Colonial Office, especially in education, medicine and agriculture. Concurrently the British government encouraged gradual Africanization in Colonial administration, often contested by expatriate communities, most notably in the White Settler Colonies of East Africa as well as by those native groups such as the Kenyan Kikuyu. Resistance among indigene and colonial was also aroused by the failure of several CDC developments typified by the abortive poultry farming and ground-nut [peanut] schemes in Gambia and Tanganikya. In 1954, despite such failures, the heterogeneous amalgamation of ideas and practice associated with both modernity and Modernism still seemed a potent force for positive change. To the ACP partners, as before to Maxwell Fry and Jane Drew, the less sophisticated social order and more extreme climatic conditions of West Africa afforded an opportunity to implement and modify Modernist tenent. African society in the customary view of most contemporaries needed Western technique to accommodate modernization and reverse its previous exploitative suppression by the unreformed dynamic of modernity. Fry expressed this opinion partly in his 1962 article "Building the New Africa" when asserting that

native building was "unsuitable for the development of a modern civilization."[8]

A COMPARABLE ESSENTIALISM, more idealist than condescending, encapsulated in the title of an article on ACP's West Africa office was published in the April 1956 *Architecture and Building* : "The Team in the Office". Their reformist, collectivist and multicultural attitude was attested by their policy of hiring Africans, one O.O. Olumuyuwu, posing with the British staff. A year later they built the Anglo-Nigerian Arts Centre in Yuba for the British Council. The Yuba "Daily Times", doubtless influenced by British publicity, lauded the apparent coincidence of late colonial with African aspirations: "it has been the explicit aim of Britain to assist Nigeria to complete self-government as soon as possible ... [the task of the British Council being] to place at Nigeria's disposal the results of British experience, to encourage the display and understanding of Nigeria's achievements, and stimulate respect and co-operation between the many races to be found here."

CONSTRUCTS

ACP'S SCHEME FOR THE HOTEL LAGOS was structured upon that epistemological fabric. Its articulation had a formal austerity akin to the literary style of Graham Greene who narrated the ordinary, and anxious lives of the colonial agents with whom ACP worked in Nigeria.[9] Greene also disclosed knowledge of Modern Movement architecture, particularly in his African novels. The protagonist of his 1960 novel, "A Burnt Out Case", was, indeed, a celebrated architect in search of that more authentic cultural order many admired in traditional African societies. Those fictional and actual agents seldom engaged as closely with the local population as ACP over the decade their West African branch operated. One of their employees became President of the Nigerian Institute of Architects shortly before the collapse of the original post-colonial Federation and the ensuing Biafran conflict. The collapse of most British constitutional arrangements in Africa resulted from inappropriate geo-political constructs, restricted manufacturing and increased economic dependency - caused especially by oil and mineral development but also a consequence of the colonial Marketing Board system that had funded apparently liberalizing building programs. The educational facilities, many designed by Fry and Drew, while valuable, proved insufficient for the transfer of power to the native population.[10] This mixture of ineffectual if not entirely mal-intentioned colonial policy resulted in the political corruption satirized by Chinua Achebe in "A Man of the People" (1966). Achebe's central character observes the discontents at the imposition in Africa of those late Enlightenment presumptions about progress even through such differentiated projects as Modernist design and urban planning. This situation was anticipated in the majority of Nigerian reaction to the ACP Hotel Lagos project.

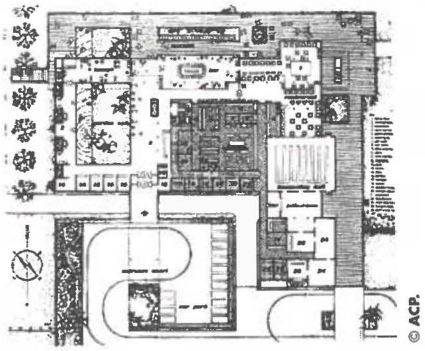

Fig. 1. Plan, *Lagos Hotel*, Nigeria, 1954.

RECEPTIONS

THE ACP NIGERIA OFFICE preserved the contemporary press-cuttings from the spring of 1955. These display a striking contrast between European and African opinion predictive of post-colonial critique. Whereas the British professional journal *The Architectural Review* printed a copiously illustrated article in its March 1955 issue (pages 180-186), the Nigerian *Sunday Times, Daily Service* and *West African Pilot* had discerned misdirected aesthetic and financial investment. The *Sunday Times* of July 10, 1955 recognized the developmental purpose of the Hotel and the quality of the design albeit noting the disparity between "Lagos of beauty and slums." Its editor printed a number of readers' letters that generally separated architectural effect from economic consequence. One correspondent even commended the "magnificent plan", in anticipation of ACP's statement in a May 1957 article from the *Architect's Journal* on "Building in the Tropics": "Architectural prejudices are less seriously entrenched in Nigeria than England. Only once during the three years that ACP has been practicing in Lagos has a design been rejected on the grounds of being 'too modern'." Other Africans saw instead the privileging of luxury over need. They preferred expenditure on public housing - a case of Modernist iconography contradicting Modernist objective. By July 17, the editor concurred, entitling his moralistic piece "Million Pound Luxury Hotel"; in the text he added this alliterated aphorism, "HOUSES BEFORE HOTELS; BRIDGES BEFORE BARS." To A.B. Olumuyawa, reporter for the *Daily Service* writing on July 21, 1955 there existed "far more useful pressing national purposes" for the £800,000 committed to the hotel and in particular maternity hospitals and subsidized housing. He accused the expatriate or British appointed Council of Ministers of "high national folly and foolhardiness." The ironic turning of Western argument against the late colonial re-invention of Western commercial and aesthetic practices was carried further by J.K. Lapido in a contemporary issue of

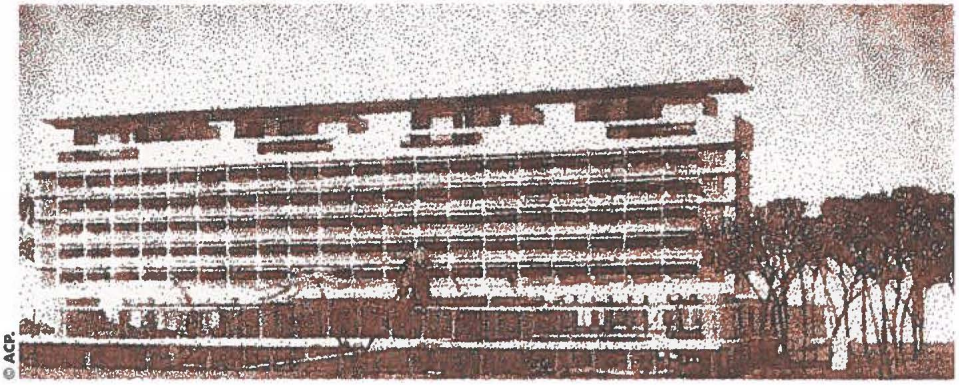

Fig 2.
Lagos Hotel, Nigeria, 1954

the *West African Pilot*. He saw through the devolutionary developmental rhetoric to a new type of subservience manifested through architectural production. The building would serve wealthy businessmen, foreign and local representative of offshore systems of control. "An hotel the taxpayer [the emergent post-colonial subject] can never move near and at his expense!" Astutely detecting the tentacles of vassalage within supposedly non-imperial regime he continued, "Maybe our Ministers and Assemblymen want the Hotel for themselves. And ten thousand pounds to build one room! Pity the poor taxpayers and workers who sleep in the streets of Lagos and under thatched roofs, without good food, medical attention and education."

OUTCOME

THE STRENGTH OF LOCAL NIGERIAN opposition, coming at the outset of constitutional negotiations toward eventual self-government, contributed to the indefinite postponement of the Hotel Lagos project. Other factors were the reassessment of the levels of capital investment and of tourism (in the pre-jet aircraft era). Colonial and commercial interests turned to the reconstruction of an existing hotel to contemporary international standards in the existing business district. Their choice was the Hotel Bristol using funds made available by the CDC and by investors, including, it transpired, African members of the Nigerian government designate. The commission for the new sixty-eight bedroom Hotel Bristol was awarded to ACP. Their design was more compact to suit the denser urban setting. In plan an open E, comprised of three conjoined multi-level accommodation blocks fronted by a single storey reception, restaurant and administration section. It was equally widely reported from the "Caterer and Hotel Keeper" to the *West African Pilot*, which on 9 February 1961 accused government officials of channeling resources earmarked for subsidizing cocoa farmers confronted by a collapse in commodity prices. But this linking to post-colonial woes was masked by a general enthusiasm for the importation of the modern in all its guises. The *Daily Times* printed several articles culminating in a report on the opening on 29 March 1961 of "The Latest Thought on Modern Design" full of praise for such features as the space deck over the restaurant and extensive use of aluminum sheet metal. The opening was presided over by the Honorable F.B. Dipcharima, Minister of Commerce and Industry in the first post-Independence government. But the catering followed European convention rather than African tradition, mirroring the cultural imperialism with which the Modern Movement became implicated however unwittingly. For the July-August 1963 issue of The *West African Builder and Architect*, representing African as much as expatriate practitioners, lauded the new Hotel Bristol as "The Great Leap Forward" demonstrating the applicability of Western Modernism "to permit the natural growth of cities and towns in an ordered manner."

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NOTES

1 This aspect of British Colonial policy is examined in David Fieldhouse, *Black Africa 1945-50. Economic Decolonization and Arrested Development*, Cambridge, Cambridge University Press, 1985; Basil Davidson, *Africa in Modern History. The Search for a New Society*, London, Allan Lane, 1984.

2 Information on the commission is recorded in the scrapbooks of this firm in the archive of the Architects Co. Partnership (now at Northaw, Potters Bar, Hertfordshire); the author is most grateful for the assistance of the partners and in particular, Allan Brown.

3 *New Commonwealth* 23 (1952) 11 p. 455

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8 *Progressive Architecture*, December, 1962, p 78; the full text is p 78-100.

9 See this author's "An Experiment with Colonialism: reading Modernist interventions in British West Africa", International Society for the Study of European Ideas, 2002 conference paper.

10 Stephen Hitchens ed., *0*, London, Lund Humphries, 1978.

Modern movement **architecture** in Ghana

This paper outlines in broad terms, and in the case of one project, in some detail, the production of the mostly expatriate architects who worked in the Gold Coast, now Ghana, from the late 1940s to the early 1960s. The first country in Africa to achieve independence, Ghana was (along with other West African colonies including Nigeria, Gambia and the Ivory Coast) the setting for some remarkable experiments in climate responsive architecture. Inspired by the international Modern Movement, British trained architects developed innovative approaches to hot and humid conditions which differed from those in the Northern hemisphere.

HANNAH **LE ROUX**

MODERNIST ARCHITECTS AND PROGRAMS

AFTER WORLD WAR II, foreign architects such as Maxwell Fry, Jane Drew, James Cubitt and Kenneth Scott set up practices the Gold Coast.[1] Substantial amounts were invested into public building, especially for schools and universities. Developing trade and primary industries created growing needs for commercial and office facilities and housing. In the 1950s, an architecture school was established in Kumasi. Its faculty then consisted only of expatriates. Professor John Owusu-Addo, who completed a course in Tropical Architecture at the AA, London, was an early graduate and the first Ghanaian staff member.

The early colonial modernists set design guidelines which are still useful today when writing about and teaching architecture outside the Western world. Climate, according to Fry and Drew, is one of "three main considerations influencing architectural design in the tropics".[2] This idea, displayed in buildings, publications and images coming out of West Africa in the 1950s had a significant impact on individuals, architectural networks and institutions striving to define "tropical architecture".[3]

The architectural media covered over a hundred constructions built according to these modern guidelines in Ghana and Nigeria between 1947 and 1966. They included schools, libraries, medical buildings and housing. A significant number of the early buildings were offshoots of the schools building programme.

During the 1940s in the Gold Coast, the secondary schooling network, mainly located on the coastal belt, was substantially widened. Over seventy schools were built between 1950 and 1963. Among the schools built or enlarged by Fry and Drew were the Aburi Girls School, Opuku Ware and Prempeh College (both in Kumasi), Wesley Girls' High School and Mfantsipim School at Cape Coast, St Mary's at Somanya and St Francis in Hohoe.[4] The new schools drew on Western standards of space and day lighting. Wall-windows were implemented with adequate sun-shading devices. Thanks mainly to adjustable louvers and raised ceilings, architects ensured cross ventilation through the classrooms.

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Fig. 1. **Fry, Drew and Partners,** *Wesley Girls School, Cape Coast, 1952.*

Fig. 2. **Fry, Drew and Partners,** *Cultural centre, Accra , 1950.*

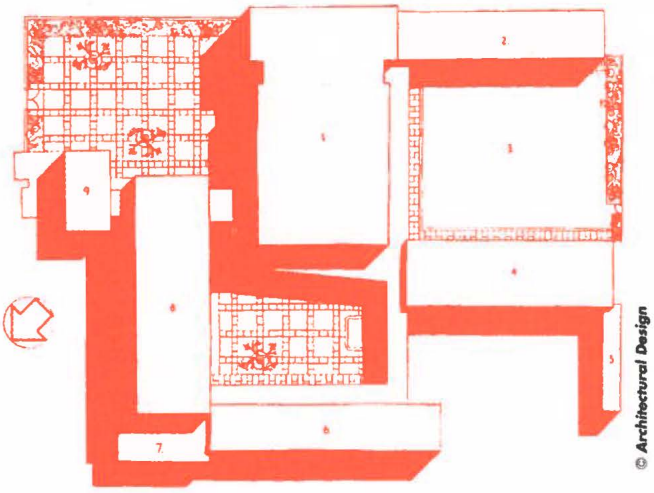

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Fig. 3. **Kenneth Scott Associates**, *British Council Office, Accra.*

WESLEY GIRLS' SCHOOL, in Cape Coast, designed by Fry, Drew and Partners in 1952 *(fig. 1)* figures among the best-preserved Modern Movement buildings. One of the few girls schools in the old Coast, Wesley was the background for an important stage in the lives of many Ghanaian women. The school's buildings are laid out along the crest of a ridge. Classrooms and dormitories look inwards towards a garden, which is closed off by a tower and an assembly hall, and outwards to the sea and the surrounding inland countryside. Public spaces are meticulously maintained in spite of difficult circumstances.

THREE significant projects in Accra, the capital, point to the significance of modernist architecture as a the backdrop of late and post colonial identity: the Cultural centre, the British Council and the National Museum. Accra's Cultural centre *(fig. 2)*, 1950, built by Fry, Drew and Partners, with Theo Crosby as project architect, is located on the foreshore. The small, elegantly proportioned center consists of a complex of blocks set around a paved courtyard, decorated with commissioned artworks. The layout foreshadows the firm's design for the University of Ibadan, Nigeria: it combines higher blocks along one axis, which capture breezes, with lower buildings set at right angles to create courtyards, which frame outdoor activities. The British Council Office in Accra, by Kenneth Scott *(fig. 3)*, is one of the most elegant modern buildings in Ghana. It has been refurbished, but its fundamental concept of a central courtyard bringing light and enhancing the cross-ventilation of adjacent offices is still operating. The building is accessible to the public, and the ground floor, opening partly on the garden, houses a cafeteria. Finally, the National Museum *(fig. 4)*, designed by Denys Lasdun with the Public Works Department and crowned with a prefabricated aluminium dome imported from Britain, provided a setting for the Independence celebrations in 1957.

Independent Ghana's leadership conformed to some aspects of the colonial building programmes, especially when these programmes developed new designs adapted to local conditions. Like Nehru in India and South American leaders, it supported innovation in government funded buildings. Just before independence, Ghana's first president, Kwama Nkrumah acknowledged progress in climatic design as a means of emancipating his fellow citizens who relied on electricity to keep food and the workplace cool:

"Excessive heat is one of the factors which hinders our development...Already in Accra and in other towns architectural designs have been evolved which make use of the sun to produce draughts of air, which, by flowing over the surface of the roof and walls of the building, keep it cool. We propose to continue experiments of this sort, combining the work of the Building Institute, with that of the University".[5]

As Africa moved towards local rule and finally independence, which in Ghana occurred in 1957, implementing local institutions became an issue of national concern. The hospital at Korle Bu (Kenneth Scott, 1950s) was substantially extended, and a large police headquarters was built in Accra (Kenneth Scott, 1950s). A programme of constructing libraries throughout the country, initiated during the colonial period, continued

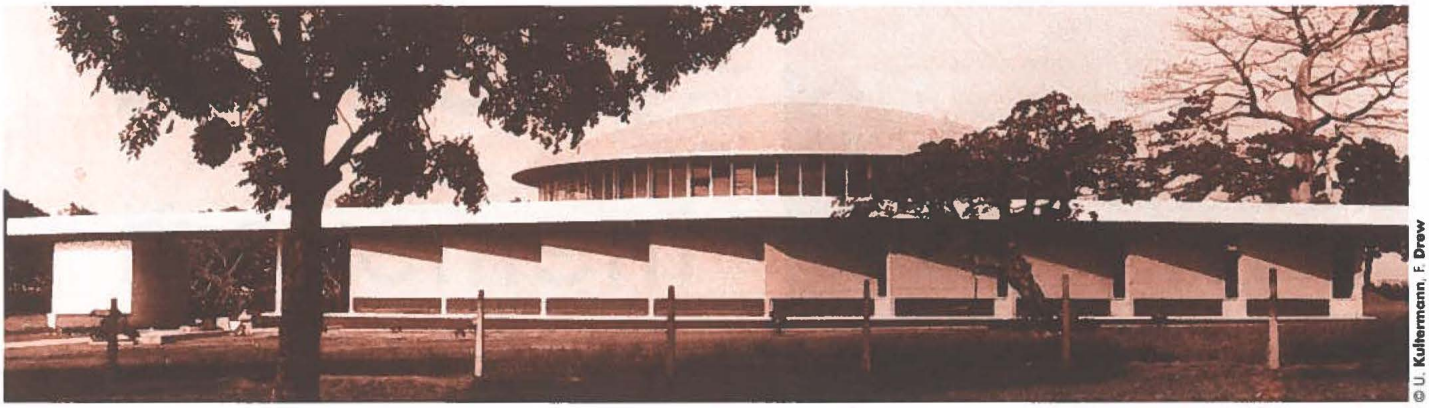

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Fig. 4. **Denys Lasdun**, *National Museum, Accra, 1957.*

with Nkrumah's support. The National Library in Accra (Nickson and Borys, 1957) is a well-maintained legacy of this programme.

After independence, Ghana embarked on a national development programme which stressed fundamental economic goals. The prestigious projects of the last colonial years were phased out in favour of massive engineering projects such as the Volta Dam, infrastructure and mass housing. Nevertheless, several projects represent an attempt to meet cultural and development challenges: the Kumasi school experimented design methodologies in the 1960s under the leadership of John Lloyd; the government-staff housing estates in Christianbourg (1962) designed by J.G Halstead and D.A. Barratt (of the Public Works Ministry); and the work of Max Bond, an African-American architect in Northern Ghana.

CONSERVATION AND DOCUMENTATION

THE EARLY MODERN MOVEMENT buildings in Ghana have been useful for over 50 years, despite service supply shortcomings and many more users than originally anticipated. For example, the schools in Aburi (Fry and Drew, 1940s) and Cape Coast (Wesley Girls' College, Fry and Drew, 1950s) are attended by more than double the number of boarders foreseen in the original programme. The schools lack piped-water supply for several months a year, and the girls have to carry their own supply from drums to the bathrooms. At Aburi, Fry and Drew designed (and documented the design in their manual) roof gutters to channel run-off water from the buildings' roofs to a storage cistern to overcome the shortage, but they are not sufficient today.

PROBLEMS also arose when building with materials untested in local conditions, particularly concrete, extensively adopted for roofs and breeze blocks. Today, many of these surfaces are blackened and decaying. Moreover, concrete, an imported material, increased Africa's dependency on the West for foreign material and technologies. Alternative materials, including 'swish' (earth stabilised with concrete), were tested at the Town and Country Planning Board laboratory, Accra,[6] and advocated by many architects, including Fry and Drew, but were not widely accepted.

During the 1950s and 1960s, documentation on Ghana's architecture in the British press was fairly extensive: Fry and Drew published their textbook, *Tropical Architecture in the Humid Zones* (1956), updated in the 1960s; both authors and other architects issued publications on West African architecture in the professional media; Udo Kulterman published two books (in 1963 and 1969) on modern architecture in Africa which included Ghanaian works by architects Scott, Barratt, Fry and Drew, and Cubitt.

Because many building materials were imported, British companies' catalogues, such as Critall's (who manufactured windows), are also a source of information on tropical architecture technologies. Technical processes were often inspired by the *Overseas Building Notes* (later the *Tropical Building Notes*), published by the Building Research Station at Garston, United Kingdom, and disseminated to practitioners abroad. Information from other (past or present) colonial territories, including South Africa and Australia, also reached practitioners in West Africa.

Buildings such as schools, colleges and libraries, designed by Modern Movement architects were the setting for many important events in the lives of Ghanaians and, as such, figure significantly in Ghana's modern cultural life. Ghana's growing tourism, and frequent pilgrimages to the slave posts along the coast, suggest that the built environment has a role to play in economic development. Moreover, the Modern Movement buildings also represent the dialogue between the Western *avant-garde* and the aspirations of independent Africa. Documenting, and when appropriate, conserving these buildings have therefore become an issue of particular international concern. Ghana has an active institute of architects,[7] and a Modern Movement diaspora of qualified architects to draw from to implement conservation programmes.

But preserving modern buildings in Ghana cannot be conceived with European or even non-Western world standards – not even Brazil's, where the Movement itself was part of its emergent national identity. Altered conditions and many present uses indicate that the buildings are not suitable for the life-style of independent Ghana. They rely

on imported technology, which often increases the country's economic dependence and debt. Their spatial intents, today blurred by apparent misuse, reflect colonial customs, such as an invisible servant class, or a rigid separation between personal and business life.

THUS, changes made to the Modern Movement buildings in Ghana are an interesting subject. Studying in some detail the contemporary uses of a modernist architectural work, the College of Technology campus in Kumasi (now the Kwame Nkrumah University of Science and Technology), show that a variety of responses to the productions and thinking of the Modern Movement coexist in today's Ghana.

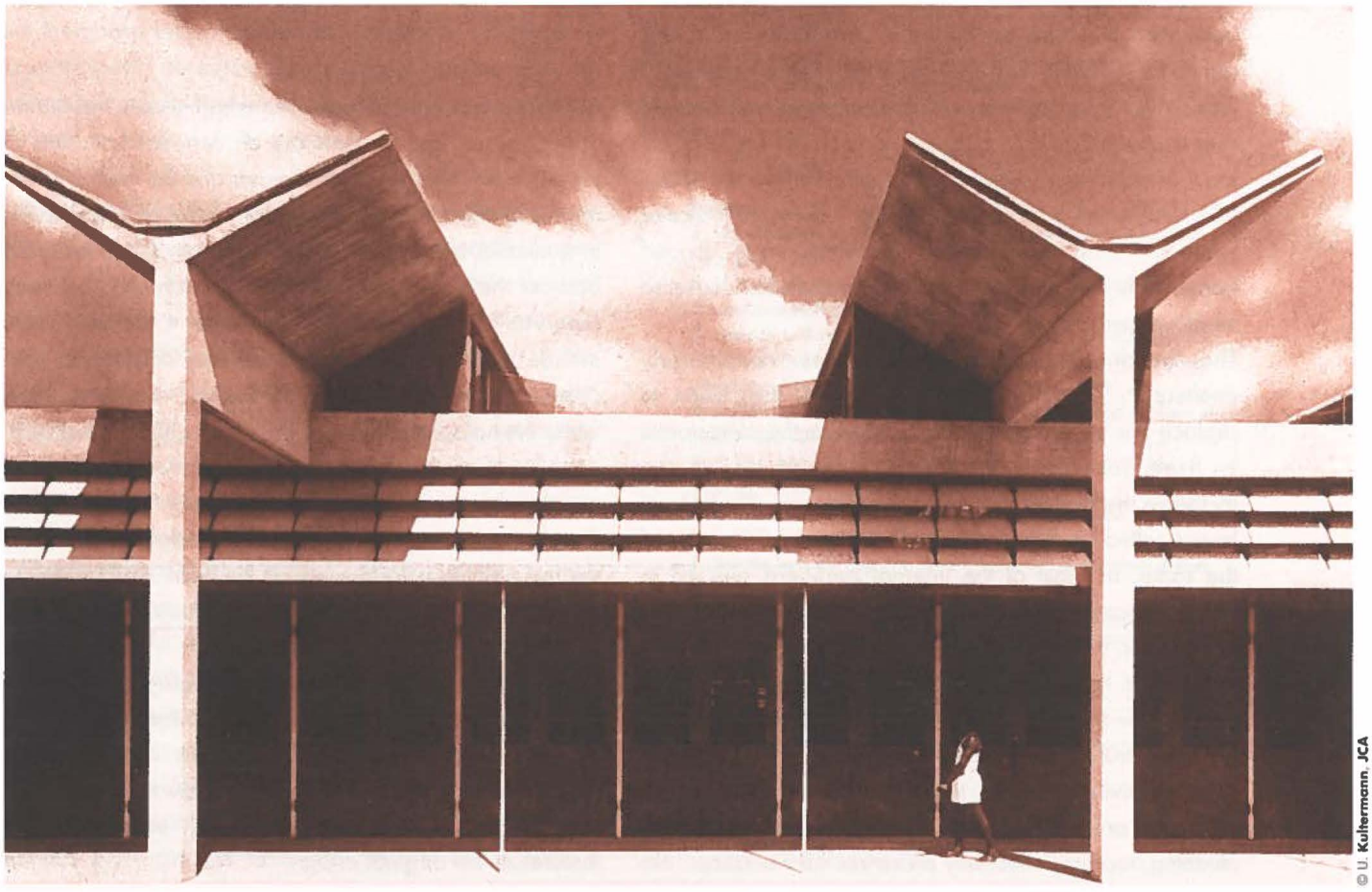
REVISITING MODERNISM IN AFRICA: THE KUMASI COLLEGE OF TECHNOLOGY

IN THE EARLY 1950S, architect James Cubitt was commissioned to lay out the plan for the new College of Technology[8] in Kumasi, Gold Coast. He possessed some expertise in tropical architecture building, a know-how gained during his wartime service in Borneo, where he had built an officer's mess. But other than that, he had no experience to draw upon when he started designing the campus. He conceived the campus as a park, embracing an *acropolis* of administrative buildings, clusters of faculties and accommodation estates, scattered over a site with a winding river and five kilometers wide. Cubitt's own firm designed and oversaw the first phase of construction, which consisted of dwellings, technology workshops and a lecture block.

WHEN he described his project,[9] Cubitt acknowledged the influence of South American modernism. He also described other designed settings in the Gold Coast - the "park like" European quarter in Kumasi, and the botanical gardens at Aburi – which he meant the campus to recall. The campus had several striking features. The landscape was remolded with earthmoving equipment, implemented with lawns and special trees and bushes. Housing and recreational areas were laid out to look out onto the remodelled landscape. The style of the dwelling facilities was sober, but adequately detailed with flat concrete roofs and adjustable louvered walls for the living rooms. The educational buildings were also very elegant. Here again, the minimalist design was appropriate, in its detailing of fitted elements which provided for sun screening and cross-breezes.

IN 2001, the 1950s campus buildings reveal varied states of conservation. In some areas, volumes remain relatively faithful to the original plan, as depicted in publications of the time. Elsewhere, they were altered, leaving the buildings themselves still quite recognisable physically, but

Fig. 5. **James Cubitt**, *New College of Technology* (now Kwame Nkrumah University of Science and Technology), Kumasi, Gold Coast, 1950-53.



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changing their meaning and function. In a third case, users encroached on the architects' incomplete vision, reversing the projected purposes to inscribe other spatial practices onto the site.

IN THE ENGINEERING WORKSHOPS *(fig. 5)*, students learned to manipulate imported industrial machines, such as lathes, presses and compressors. The layout consists of two aligned workshops, flanked with footpaths and separated by a lawn courtyard. The largest building contains worktables to experiment on and assemble small machinery. The workshop, when it was built, was a model of mechanical control with both the envelope and its contents designed to be highly functional. The walls and roof were devised as mechanical filters which could be adjusted according to the varying uses inside and/or to the weather conditions outside.

KUMASI ILLUSTRATES THE ISSUES AND QUESTIONS RAISED BY ANY PROJECT OR PLAN TO CONSERVE THE MODERNIST LEGACY OF THE 1950s AND 1960s

The appliances in the building generate heat while running, which called for effective ventilation. In addition, when the architects conceived the building, they had to bear in mind that the technology in place would in time be outdated, replaced and re-organized on a different layout. To answer both requirements, the architects designed large spanning roof elements, consisting of parallel reinforced concrete Y-beams raised above a lower flat roof. The wide spanning structure provided the workshop with large open plan spaces allowing for flexible arrangements of equipment. Ventilation was ensured by the double-skinned roof and regulated openings in the flat roof, the clerestories.[10] These held tinted, power-operated windows which could swivel open up to 135 degrees, to meet the angle of the local breezes and screen out the sun. Below, the space was subdivided with concrete blocks. The perpendicular walls on either side of the workshop were divided horizontally by different types of adjustable louvered windows and doors.

The building's technical appliances are largely unaltered. The most significant change has been to replace the swivelling windows fitted to the clerestories by fixed elements, which hampers cross-ventilation and increases the temperature inside the building. The internal layout reflecting the various technologies has remained the same, as most of the internal partitions are still in place, suggesting that new technologies have not been catered for.

Adjacent to the engineering block, on the walkway which runs outside the workshop, a small stall-snack counter was put up to draw in the passing trade of visitors. In contrast to the activities around this stall, the activities in the workshop are mainly rote. What I saw - maintenance, cleaning, repairs - effectively preserves the workshop. No longer the dynamic instrument the architects had envisioned, neither has it been allowed to decay. But its meaning has changed: now that the mobile elements have been fixed in a static position, the double-skin's climatic design is redundant, and the structure's upkeep, far from upholding the architects' understanding of modernity as a dynamic condition, has frozen it fifty years back in time. The resources devoted to the building's upkeep suggest that its iconic status when built is somehow intact. But the vision of modernism it embodied when it was built has not been fulfilled. The fundamental services such as power and water supply are intermittent on the campus, and staying up to date with new technology is obviously unaffordable.

A second building, a house designed in the mid-1950s for junior academic staff *(fig. 6)*, is subjected to a different type of transformation. It is one of a sequence of identical "type 'B' houses" laid out along a road at intervals of 50m. Each had a flat roof with an *impluvium* opening over the entrance and patio, but to prevent leaks the openings have been covered with pitched roofs. The houses face slightly away from the road and their main living room opens up on the landscape, thanks to a façade consisting exclusively of swivelling horizontal windows.

In the 1950s, most of the academics were British male expatriates. It was common practice to hire a servant to cook and keep house for them, and so the house's design includes a "boy's room", right off of the kitchen, both disjointed from the master's dwelling by an open courtyard.

TODAY, a Ghanaian couple and their children live in one of the houses. Both parents are on the academic staff of the university; they have no servants and the mother cooks for the family. She sees the house's plan as problematic in a number of ways. A kitchen separated from the main body of the house is awkward if she wants to cook and supervise her children at the same time. Either she works outside or in the living room with her children, or she contrives to share the dark, hot kitchen with them. She thinks the house is too small. Unlike an expatriate lecturer who would eventually return "home", she plans to stay, and the absence of storage is bothersome. Unconsciously, she also reacts to other aspects of the design: for instance, she has painted a floral mural on the blank wall facing the road, marking her house off from the adjacent "Type B" houses.

In contrast to the publications depicting a luminous interior, the family tries to keep the house dark. They shield the glazed façade with curtains. Other considerations, possibly privacy, sun control, or insects, are more important than the view or cross-breezes which were important features of the original design.

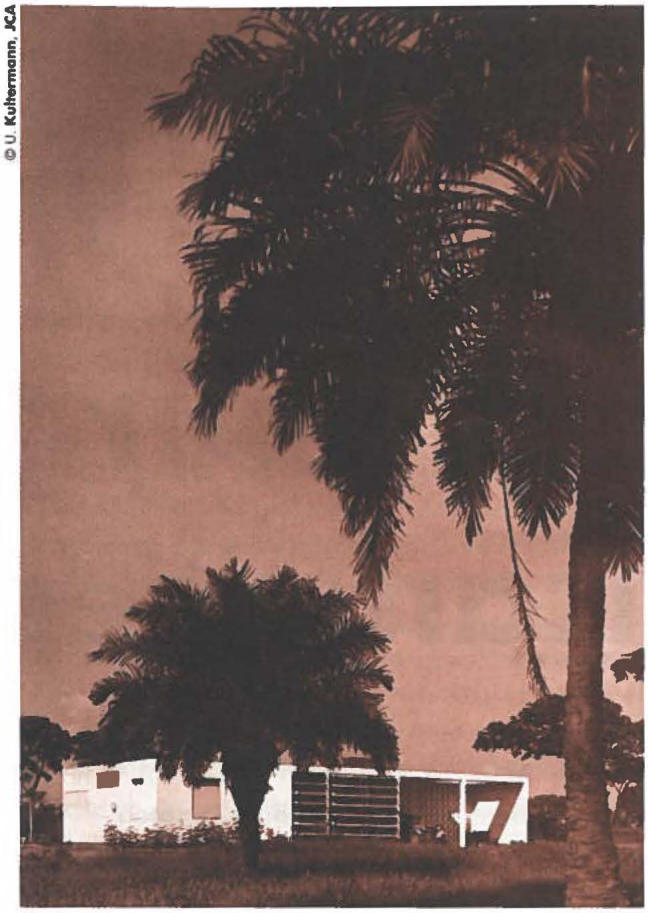

Fig. 6.
James Cubitt, *Type "B" House*, Kumasi, c. 1955.

These strategies - reoccupying the kitchen, resurfacing some walls, screening windows, among others - reverse some of the uses assumed or imagined by the architect. But the house is appreciated as a valuable amenity in a town that lacks accommodation facilities. Besides that, the university's administration is tolerant of the small changes brought to a house on its premises.

THE THIRD EXAMPLE concerns a site located in the park-like open space of the campus. It is a small patch of open ground facing the university guest-house, where several workers watch over and keep up accommodations and cook for the guests. They are not granted housing on the campus and, at midday, have to retire to this small patch across the road. Now, if the landscaped areas are no longer mown or cultivated according to a scheme, neither are they entirely overgrown or completely derelict, and from a distance, this spot appears to be an informal arrangement of various material, maybe even a dump. However, at closer view, it is carefully laid out for rest and breaks, swept clean; meals are taken around tennis tables with makeshift branch seats. A photograph of the previous election's opposition candidate is nailed to the tree.

THE SPACE has been fashioned by people who were at times made invisible by the modern campus' routine. The campus plan did not take into account the numerous "informal" employees: it ignored their housing needs, made no allowance for the large distances between precincts where they waited on the official staff and did not even consider their presence in public areas. Unseen, the workers took over the "non-places" in the landscape as a sort of compensation. Such gestures have undermined the modernist vision of a landscape designed for visual enjoyment, but they have re-written outdoor living patterns that might be seen as typical of African customs and spatial relationships.

Today's many sided uses of the Kumasi campus suggest a situation where the language of Western modernism is simultaneously sustained, fractured and radically remodelled. The engineering block's modernity is, by Western standards, no longer modern. The snack-stall, like the Type B house's renewed use, and the informal lived-in areas of the campus landscape, are entirely sensible acts that nevertheless undermine the principles of mono-functionality and order of the original design. But does this necessarily imply that modernism is at odds with African spatial patterns of living?

KUMASI illustrates the issues and questions raised by any project or plan to conserve the modernist legacy of the 1950s and 1960s. While Modern Movement buildings are an invaluable framework for the ongoing development projects which most Africans have pragmatically embraced, more often than not the African use of these buildings differs from the Western norms.

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The **modern** movement architecture of **four** **South African** cities

Fig. 1.
Rex Martienssen and **Le Corbusier** in Paris, 1930s.

ROGER **FISHER**
HANNAH **LE ROUX**
NOËLEEN **MURRAY**
PAUL **SANDERS**

South Africa's modern architecture is not confined to the cities, but the ideas of the movement were mostly disseminated by architects and academics in Johannesburg, Pretoria, Durban and Cape Town, its four major urban centers. The lay out of significant areas of each city was also influenced by international modernist plans. In outlining the achievements and innovative designs of architects in these cities between the 1930s and 1970s, this article draws a picture of the importance of modernism in South African urban space, and of its diversity. It also draws attention to the political nature of the South African landscape and space, where modernist design was used for racial purposes,[1] and to past and present conservation ideologies.

The second part of the article concerns the conservation of modern buildings in these centers; it quotes bibliographies and lists the registers, those existing or under construction.

It concludes with an overview of the conservation legislation in place and the challenges of conservation in a context of changing cultural values.

FOUR CITIES

THE FOUR MAJOR SOUTH AFRICAN CITIES tell a series of interesting architectural narratives. The sequence of events leading to South-African modernism arguably begins with architects from Johannesburg getting involved with the international Modern Movement. But, subsequently, modernism was taken up with great energy in the other centers, for instance under the influence of 1950s Brazilian modernism.

Each city featured a prevailing architectural type, such as speculative residential and corporate buildings in Johannesburg, as opposed to the institutional nature of many Pretoria buildings. Architects displayed specific cultural allegiances, which often reflected their European roots.[2] Consequently, cities adopted and interpreted

modernism as an "appropriate" architecture for South Africa with varied approaches and results. In that respect, South-African modern architecture exposes the contextual content of the so-called "International Style".

It is not surprising that Johannesburg, established just over a 100 years ago and largely rebuilt in the 1930s, has a good number of modern buildings. During that decade, the city fostered a precocious *avant-garde*. A large, well-read émigré class (including Lithuanian and German refugees) and the bravado of the city's entrepreneurs supported the architectural development of a growing city. As a result, Johannesburg was cosmopolitan, utterly lacked nostalgia, and was very quickly built.

The first formal links between South African architects and the international Modern Movement were established by the "Transvaal Group",[3] informally led by Rex Martienssen (1905-1942) *(fig. 1)*.[4] An outstanding student and lecturer at the University of the Witwatersrand, Johannesburg, and editor of the *South African Architectural Record*, he investigated and promoted modern architecture amongst his colleagues. Thanks to Le Corbusier, Martienssen was invited to join the CIAM in 1937, but the budding international links withered following the outbreak of war, and Martienssen's tragic early death.

JOHANNESBURG'S POST-WAR MODERNISM lacked the precocity it had during the earlier period and the influence of these ground-breaking years remained. Martienssen's former partner, John Fassler (1910-1971), headed the school of architecture in the 1950s and 1960s. The classical leanings of the movement were evident in the somewhat conventional John Moffat building at the University of the Witwatersrand (1956). The interest in town planning led architects such as Jonas and Hanson to design "native" townships including Soweto.

A younger generation including Monty Sack, Donald Turgell and Michael Sutton, influenced by Brazilian or Mediterranean work,[5] reintroduced more simple details to the idiom of domestic architecture.

PRETORIA, a mere 70 km north of Johannesburg, had a number of Art Deco buildings by the 1930s,[6] and was directly connected to the emergence of modernism in South Africa, more specifically at the Wits school. When a 1931 law ruled that architecture students should attend university, it was arranged that Wits would award the degrees in Architecture and Pretoria the degrees in Quantity Surveying. The Transvaal Group's local representative was Gordon McIntosh (1904-1983), Martienssen's close friend, confidant and co-advocate of modernism *(fig. 2)*. McIntosh's Munro House (1932) in Brooklyn Pretoria became the flagship for this *zero hour* initiative. His Whitecrook block of apartments (1937, demolished around 1985) was one of the first Modern Movement

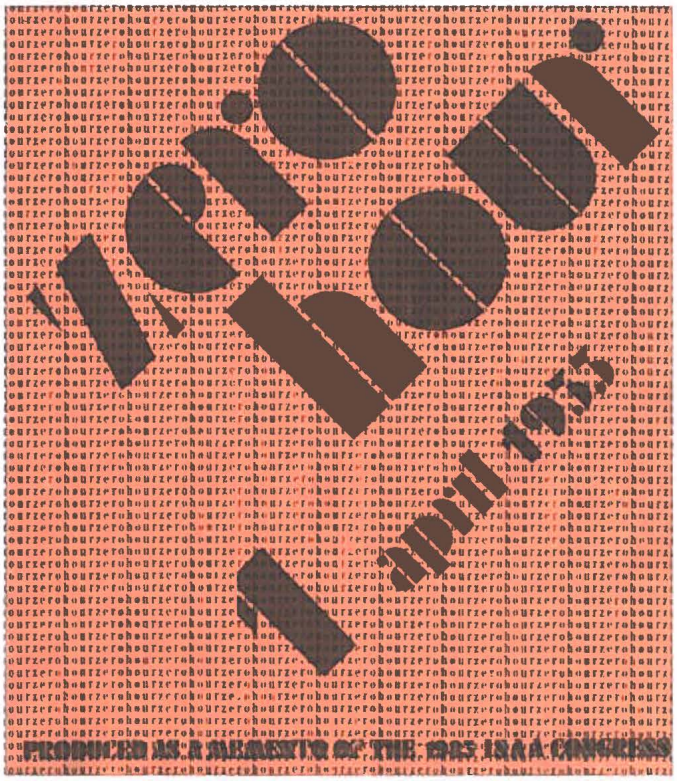


Fig . 2. **Martienssen, McIntosh, Norman Hanson**, cover page of the single issue of *"zero hour"*, 1933.

multi-storey residential buildings in South Africa. Norman Eaton (1902-1966) also dabbled with modern aesthetics in his early Brooklyn houses, but soon developed a more rustic regionalist approach. The partnership (1935-1943) between Aubrey Nunn (b. 1905) and Helmut Stauch (1910-1970) played a considerable role in introducing the modern International Style to Pretoria, a fine example being the Marchie Mansions (1937, extant but neglected and somewhat altered) in the central city.

The intervening war years brought construction activity to a stall. In 1943, the student corps was swayed by the *Brazil Builds* exhibition (and catalogue) at the MOMA,[7] which prompted the University of Pretoria to initiate an independent School of Architecture.

Graduates of the new Pretoria school were driven by the art of construction rather than by an architecture grounded in theory.[8] Pragmatic and rationalist teachers such as Stauch, Robert Cole Bowen (1904-1976) and a younger colleague, Basil South (1915-1952), fostered this trend. Stauch's *Meat Board Building* (1952) in Arcadia was the first building in South Africa demonstrating Brazilian influence. Both in central Pretoria, Eaton's two buildings, the ill-fated *NZASM* building, the Railways Headquarters (1944-1948, its design much truncated in 1948 when the Nationalist Party took over) and *Wachthuis*, the Police Headquarters (1955-1960) *(fig. 3)*, are equally representative of the style.

Pretoria, the administrative capital, expressed in architectural terms the Nationalist government's aspiration to become a progressive New World nation-state. The affluence of the 1960s allowed for building programs

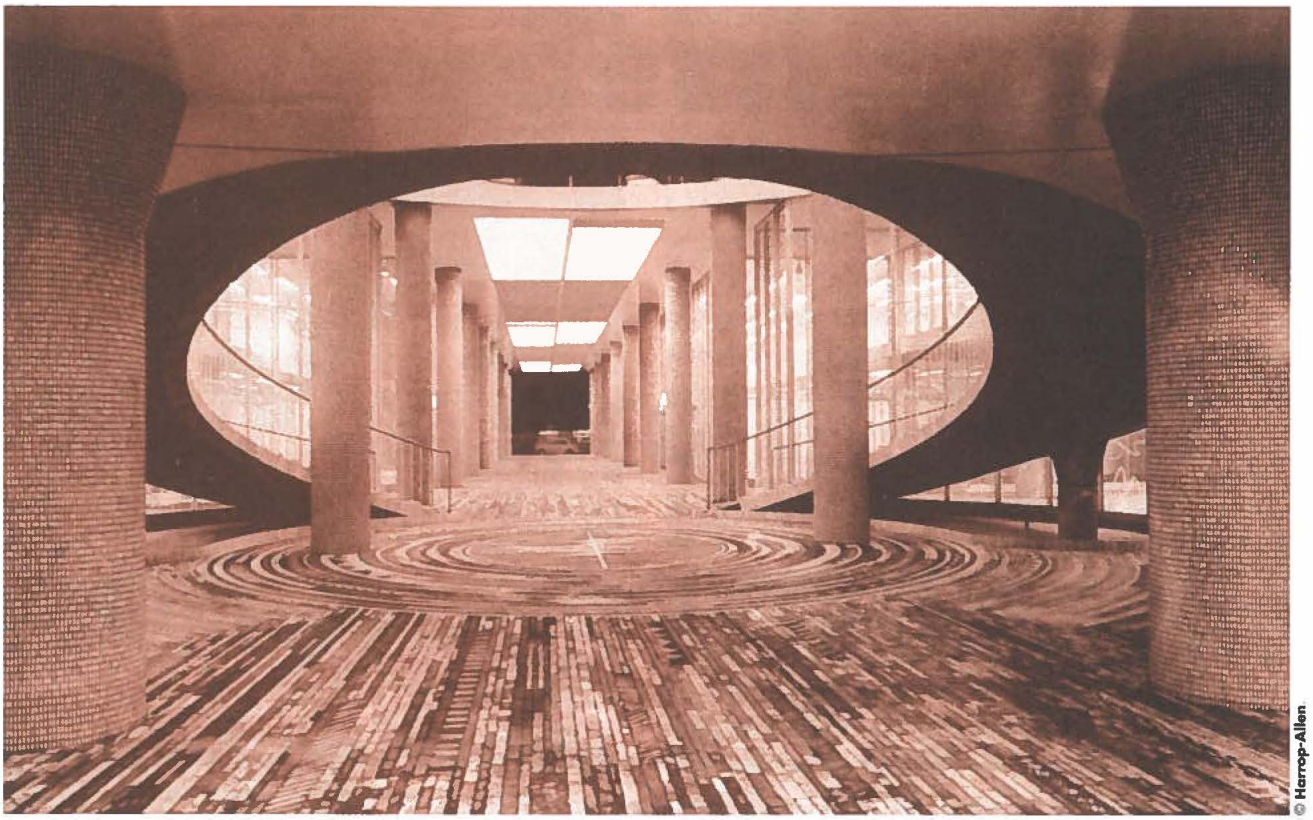


Fig. 3. **Norman Eaton**, *Polly's arcade*, Pretoria, c1950.

which monumentalized these endeavours, and many good buildings in the International Style were constructed. The Transvaal Provincial Administration Building (Meiring Naudé, Moerdyk and Watson, 1962) epitomizes this phase. Pretoria University, closely connected to these aspirations, followed the same course. The central campus complex of buildings -most bearing the name of (A L) Meiring (1904-1979)- illustrates this development (for example Karl Jooste in the offices of Philip Nel and Partners, The Aula, 1959).

The National Building Research Institute, located outside Pretoria, played a significant role in introducing modernist ideas of minimum standards and rational approaches to climatic design to the profession and to the housing agencies which provided rental housing to Africans in urban areas.[9] Under the leadership of Douglas Calderwood, plan types, including the ubiquitous NE 51/9,[10] were widely disseminated *(fig. 4)*.

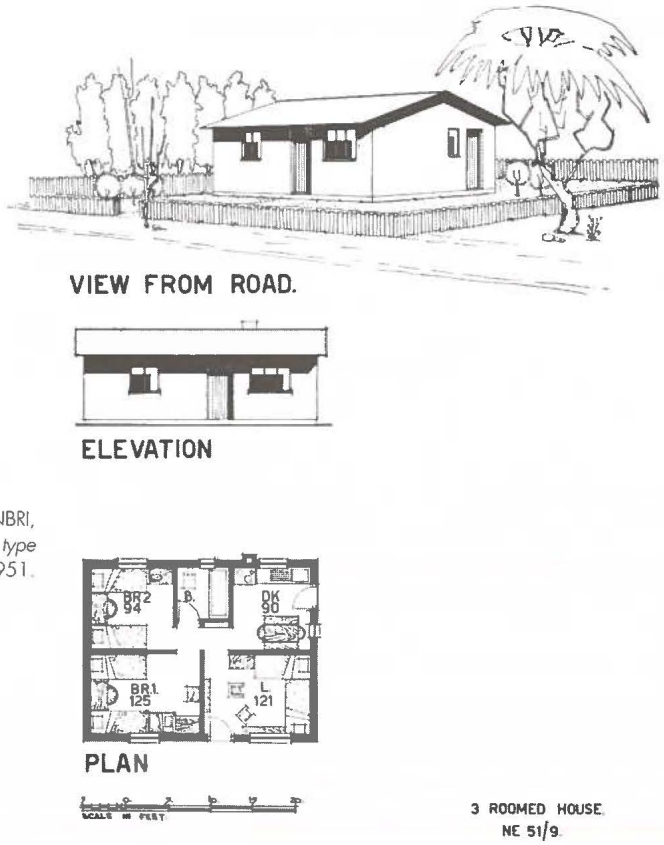


Fig. 4. NBRI, *plan type 51/9*, 1951.

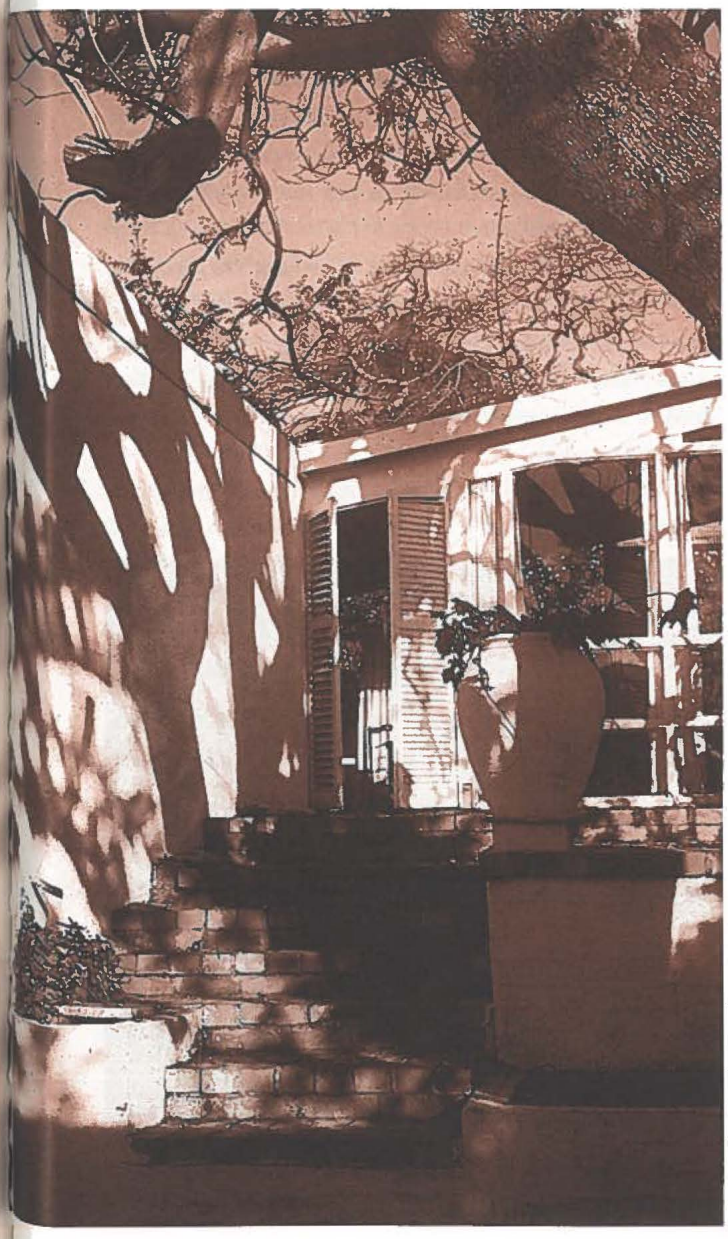
SLIGHTLY ON THE HEELS of the Transvaal Group, a few architects in Durban were also responsive to the influence of the International Style. From 1936 onwards, several houses were designed with reverence towards the seminal European Modern Movement buildings; and were also inspired by the emerging Modern Movement in Johannesburg and Pretoria.

Prior to the 1950s, the number of notable modern buildings was modest in Durban compared to the other centers in South Africa. The situation changed to some extent when, over a period of 10 years, architect Issy Benjamin and his Crofton and Benjamin practice designed a considerable number of residential apartment buildings. Their projects clearly bore the influence of contemporary Oscar Niemeyer's exuberant Brazilian modernism. As Butler writes, "Benjamin developed a style that was sensitive to site conditions and local climate. In his compact and highly functional internal organisation, he

creates the illusion of space by using features such as angled walls, perspective views and corner windows".[11] Most of his buildings (such as the Las Vegas apartment building, 1957), located along sea and harbour edges, or in Durban's close suburbs which overlook the ocean, show refined elements of highly developed modernism.

The influence of sub-tropical Brazilian architecture also appears in the seminal Biermann House (1961). After travelling to Brazil, Barrie Biermann, resumed his lecturing at the University of Natal, and designed his own house *(fig. 5)*. It is interesting to note that he synthesised the Modern Movement's influence with both his own research on the Cape's vernacular architecture and his interests in colonial and indigenous architecture. The result is a well assimilated ensemble of eclectic parts. Radford suggests that: "its chief glory lies in its response to climate, through the grouping of the building around a courtyard and the opening up of most of the internal spaces to the garden."[12] (Radford 2002)

Fig. 5. **Barrie Biermann**, *Biermann house*, Natal, 1961.



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BIERMANN'S HOUSE and his teaching established a benchmark for a regional expression of modernism, coined the "Natal School". His example was quickly followed by his students. For instance, during the following decades, Hans Hallen, whose oeuvre is extensive and in turn influential, sought clarity of form and siting in much of his work. House Hattingh (1963) is a typical example of Hallen's domestic architecture. It is characterized by roughly rendered white walls, a feature which he subsequently developed on a larger scale with the apartment buildings of Drostdy (1965) and Riebeck (1966). A second wave of former Biermann students, who founded and worked together in the "Building Design Group", continued working in his direction and style. Fuelled by abundant residential commissions, the group gained national recognition for its paired down modernism: House Mikula (1965) and Houses Paruk (1966-68) are typical examples of their architecture, responsive to the region's climate, vegetation and people.

CAPE TOWN, and many of its associated centres, including Belville and many small inland towns, were profoundly influenced by modern architecture and town planning ideals.[13]

Modernist influences took some time to appear in Cape Town. They only became noticeable between the 1930s and the 1940s when Prof. Thornton White (1901-1965) took over as the Head of the School of Architecture at the University of Cape Town (established in the 1920s). Gilbert Herbert writes: "The advent of Prof Thornton White to the Chair of Architecture, early in 1937, was significant in the Cape Town story. A change in direction in the School of Architecture soon became apparent, and in a year or two the exhibited work of the school was much more modern in spirit".[14]

Up until then, the attitude towards modernism in the Cape was "hostile" and "conservative". Modernism eventually settled in, but with less "strength" than in the Transvaal works greatly inspired by the International Style.

In the 1950s and 1960s, the advent of apartheid triggered an unprecedented amount of building and planning work in Cape Town. Plans included the Cape Town Foreshore Scheme, and the Native Housing initiatives in townships such as Langa and Nyanga. Simultaneously, Belville, a satellite city center, emerged outside Cape Town where many buildings were commissioned and completed by Afrikaans architects, many of whom had practices in other South African cities, such as Pretoria. One of these architects, Jan van Wijk (1926), was commissioned to design and build many commercial and public constructions, including later projects such as the Taal Monument (the monument to Afrikaans language) in Paarl. These buildings were conceived along strongly nationalist lines. Little information or research work on this

critical period of the Cape's modern architectural history is available, perhaps because the only architecture school in the region is the English-language University of Cape Town.

A few architects stand out for their adherence to modernist methods. Pius Pahl, for instance, trained at the Bauhaus in the 1930s, moved to Cape Town and quickly established a thriving practice: his prolific production ranges from private housing to commercial real estate projects, most notably the blocks of flats on Cape Town's Atlantic seafront in Bantry Bay. Pahl's work was shown in an early 1990's German retrospective of Bauhaus works. Similarly, after World War II, a group of Polish architects trained at the Liverpool School of Architecture, established thriving practices in Cape Town. Many of these architects were committed modernists; among them, Maciek Miszewski and Roman Soltynski who taught part-time at the Architecture School of the University of Cape Town.

MANY OF CAPE TOWN'S most significant buildings were erected during the 1970s. Professors Prinsloo and Uytenbogaardt joined the School of Architecture, University of Cape Town, where they set up a planning department. Both men were key figures with outstanding international reputations. This spurned renewed confidence in modernism, which local architects then adopted. Much of the work of this period is influenced by worldwide shared knowledge, but a significant number of regionalist modern architecture projects begin expressing ideas and questions concerning a specific South African identity. Gabriel Fagan's work (1925) is probably the best example of this architectural search for a local identity *(fig. 6)*.

MODERN ARCHITECTURE AT PRESENT

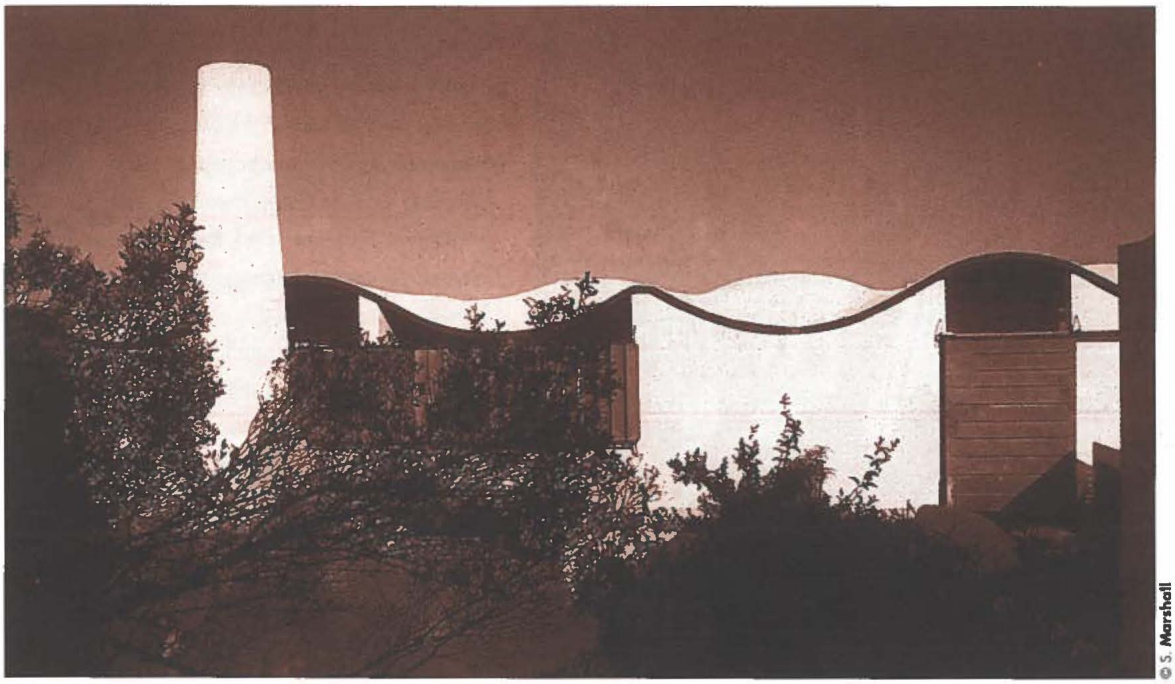
THE OUTSTANDING RECORD of early modernism in the Transvaal lies in the *South African Architectural Record's* issues. Between 1931 and 1942, it enthusiastically broadcasted significant documents: projects by young modern architects, but also the works of internationally famous figures, and the single *Zero hour* issue written in 1933 by Martienssen, McIntosh and Norman Hanson (1909-1991).[15] It also published the small collection of Martienssen's drawings, archived at the University of the Witwatersrand and at the National Gallery, Cape Town. Plans for most buildings in Johannesburg are also kept in microfilm by the city council.

In Johannesburg, the early Modern Movement buildings have met with varying fates. Large businesses and capital have moved away from the inner city and as a result many of the surviving buildings located in this area are poorly maintained.

In Johannesburg, only a handful of modern buildings are listed and protected by the National Monuments'[16] records. German émigré architect, Wilhelm Pabst (1905-1964) designed two of these protected buildings, the Patidar Mansions and the Chinese Club. Expressive geometry within a modernist vocabulary reflects the buildings' links with the German *avant-garde*. Despite their registration, these buildings are not anywhere near their original condition.

Other important 1930s buildings in or near the inner city are Anstey's Building designed by Emley and Williamson, Peterhouse, designed by Martienssen, Fassler and Cooke, and Radoma Court (1937) designed by Kurt Jonas in Harold Leroith's office.

Fig. 6. **Gabriel Fagan**, *Fagan House*, 1963.



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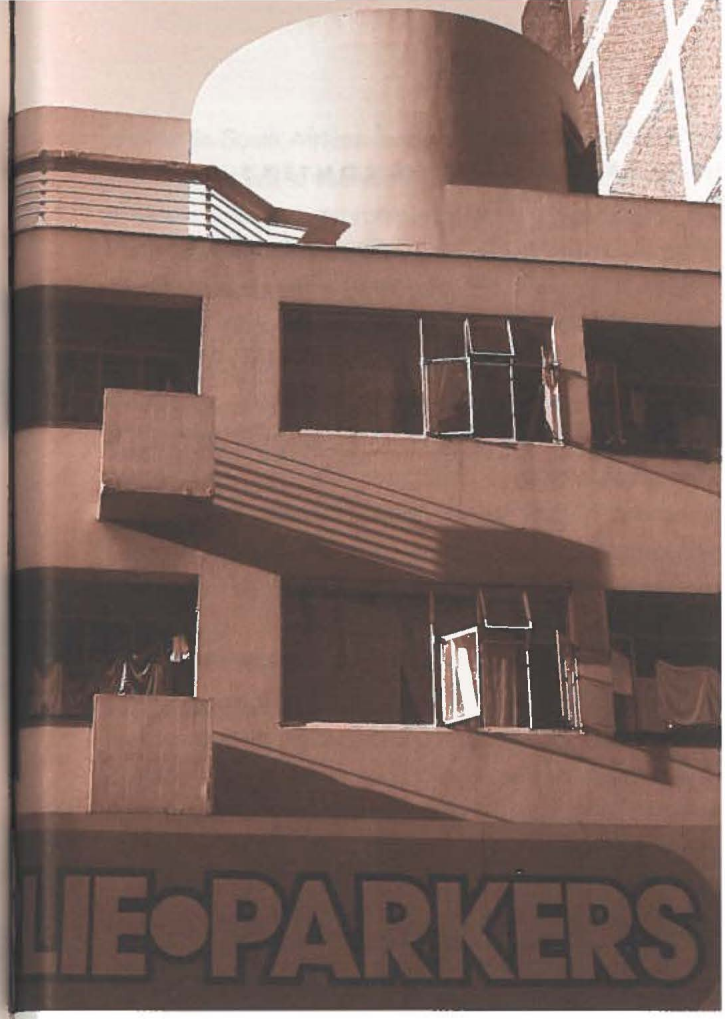

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Fig. 7.
Martienssen, Fassler and Cooke,
Peterhouse, Johannesburg, 1937

Peterhouse is Johannesburg's most well known modernist building, mainly thanks to black and white photographs taken when it was newly built. At the time, it featured a funeral parlour at ground floor level, a curved solarium and a V-pole at street level in homage to Le Corbusier. Today, the latter portion is completely altered *(fig. 7)*. Radoma Court, like several modernist buildings designed for private investors, uses the site to its maximum density. The four different types of apartments feature extensive glazing, oak strip floors and carefully detailed fittings including lights, folding tables and movable cupboards allowing to divide the studio flats' space. The building also had a roof terrace and solarium, which, due to the traffic which damaged mastic asphalt covering, is now closed off. Anstey's is perhaps the success story of appropriate conservation in this area. The building's preservation, was led by an informed trust which supervised its refurbishment and management, with the individual flats sold off at affordable prices.

IN JOHANNESBURG'S SUBURBS, private houses and commercial buildings are usually less threatened by economics, but few have been conserved as built. A notable exception is Martienssen's house in Cruden Bay Road, Greenside (1940), which is well maintained by its subsequent owners, who live in it. Although the Modern Movement in Pretoria is well documented, either in publications at the time, or by academic studies, there is no systematic record. The buildings in the city center are recorded as part of a larger study,[17] but many Modern Movement early examples, particularly domestic architecture located in the Eastern suburbs of Brooklyn and Colbyn, are not necessarily registered.

CHANGES occur perhaps at a slower pace in the administrative and bureaucratic capital Pretoria, and architecture there is more enduring. Besides Whitecrook, many early modern icons still stand, but this does not mean they are not threatened. House McIntosh remains in a densified old age village, the additional buildings making a somewhat derivative gesture to the style. However, many modern houses are making way for the *nouveau riche* opulence of revival style dwellings, with a preference for the omnipresent "Tuscan style". The National Monuments Council stepped in to ensure the interim preservation of parts of the two Eaton projects. The much admired off-cut stone floor in Wachthuis was to make way for a parking lot. The Bank of Netherlands' interior (now Nedbank) was to be refurbished to suit the building's new corporate identity. But both are at present preserved mostly intact. Stauch's Meat Board Building is weathered and knocked about, but still sound and steady. With the relocation of the Provincial parliament to Johannesburg the Old Transvaal Provincial Administration Building is now under-utilized and neglected. So are many of those modern buildings which once served a nation grown corpulent on state control and obsessed with military might.

An obscure but useful record of buildings is a section of the Enpat project Tourpat database (Department of Environmental Affairs). The ongoing record project collects data on geographical location, style and period, as well as the name of architect, address, current use, building type, statement of significance and so forth.

IN DURBAN, buildings of architectural worth have been intermittently recorded in listings and guides published by the Kwa-Zulu Natal Institute for Architecture.[18] Since 1972, these publications have served as a valuable audit, quantifying and monitoring the region's important buildings.

In 1982, a detailed survey conducted by Brian Kearney of the University of Natal undertook a comprehensive account of pre-1940s architecture. The survey formed the groundwork for his "Revised Listing of Important Places and Buildings in Durban" (1984), which provided the City Council a basis for its conservation policy.

UNFORTUNATELY very few of the rare International Style buildings in Durban were included in the document, a notable exception being the Natal Technical College

Clubhouse (1938). Designed by the Ing. Jackson and Park Ross practice, it was possibly the finest piece of modern architecture in Durban. Illustrated in the August 1940 and October 1944 *Architectural Review's* special features on South African architecture, it gained international attention and was further noted in Fletcher's *History of Architecture* as showing the influence of the Dutch architect Dudok's brick architecture.[19] Despite its status as a listed building of considerable reputation, it was unscrupulously allowed to fall into disrepair and unceremoniously demolished in 1991 to make way for a road extension, as a result of erroneous traffic engineering. The same municipal authority set up the system to protect its architectural heritage and expediently destroyed the listed building.

THE ISSUES OF MODERN BUILDING'S CONSERVATION IN SOUTH AFRICA MUST BE CONSIDERED IN THE CONTEXT OF POST-APARTHEID CULTURE, WHICH SPECIFICALLY ATTEMPTS TO CORRECT THE OMISSIONS IN THE LEGISLATION OF THE PREVIOUS ERA

There are very few new or public initiatives to re-use or conserve modern buildings in the Cape Town region. This neglect is due to a negative popular perception of modern architecture and to its impact on our cities and towns. Some control is, at least, exerted by the local authorities which monitor any suggested change or alteration of buildings. Moreover, a number of buildings (mainly private houses) in good condition are conserved by private owners who recognize their value. These include House Fagan, still owned by Gabriel Fagan, House Stekhoven by Adele and Tony Dos Santos and House Falk (although slightly altered in the 1980s).

A RARE INITIATIVE to upgrade modernist workers' housing is the Langa Migrant Labour Hostels Project by Julian Cooke and Architects Associated, which transformed single men's hostels into family units.

Documentation projects and archives in Cape Town include the Architectural Documentation Project,[20] and the Architectural Collection of the Libraries' Manuscripts and Archives Section, both at Cape Town University. Regional organisations active in conservation include the Western Cape ICOMOS working party, the Cape Town City Council's Environmental Unit (Urban Conservation Section), the Cape Association of Heritage Practitioners, the Cape Town Heritage Trust and the Vernacular Architecture Society of South Africa.

Throughout the nation, ICOMOS, the heritage committees of the various regional affiliates of the Institute for South African Architecture, and the South African Heritage Resources Agency (SAHRA) are all active in conservation.

CONSERVATION IN A TRANSFORMING CONTEXT

THE ISSUES OF MODERN BUILDING'S CONSERVATION in South Africa must be considered in the context of post-apartheid culture, which specifically attempts to correct the omissions in the legislation of the previous era. [21] In South Africa, traditionally, only eighteenth, nineteenth and early twentieth century buildings and settlements were considered as architectural heritage. Increasingly, and this is an international trend, the need to document and conserve modern architecture has been a growing concern. In South Africa, this concern often has a very specific and direct relationship to the history of apartheid. As a result, the need to debate the presence of these buildings in the cultural landscape has emerged. This involves discussing the "conservation" of apartheid environments and its significance in the present context. Simple identification and conservation practices are not applicable here.

FURTHERMORE, there are very few up-to-date publications on South African architecture available. Much of the historiography needs urgent revision to bring it in line with current discourses of space. For example much of the documentation – drawings, papers, reports – is disappearing as most people do not consider it as having any historical value. There is no effective regulation in place for the archiving of modern and especially apartheid planning documentation. Consequently many of these buildings and their surroundings are threatened by demolition and redevelopment.

Although, by law, no buildings over 60 years old may be altered without assessment by the National Heritage Agency, resources to monitor and implement this law are scarce. Moreover, in locations such as Durban where the major contribution to modern architecture occurred after 1950, this ruling has little effect.

IT IS NOT SURPRISING that, given the country's history and the long established use of conservation as a political tool, current official conservation initiatives are more often aimed at recording and safeguarding the neglected heritage of African cultures including pre-historic sites and the modest dwellings of significant figures of the struggle for freedom. But South-African culture should not necessarily exclude modernism, and indeed, contemporary African urban life is still deeply influenced by the culture and designs of modernity.

FINALLY, growing contact with agencies such as DOCOMOMO and ICOMOS offers opportunities for documentation and conservation which are of mutual interest for North and South hemispheres. International

interest in South African modern architecture, particularly initiatives linked to economic upliftment through tourism or skills development, go some way towards moving modern architecture back onto the national conservation agenda

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NOTES

1 This is described extensively in Vladislavic and Judin, (eds.) *blank architecture, apartheid and after*, Rotterdam, Nai, 1998, particularly in the contribution of Derek Japha.
2 It is not surprising that, given the context of racial discrimination, all the South African modernist architects were of European descent.
3 Le Corbusier used the term in his letter of support to the young architects, published first in the South African Architectural Record Volume 20 no 11, pp 381-383, and then as preface to the 1937 edition of le Corbusier et Pierre Jeanneret *Oeuvre Complete de 1929-1934* (Zurich, Girsberger)
4 See Herbert (1975)
5 See Chipkin (1993)
6 The Deco styled modernist architecture is well represented in the work of Jimmy (James) Burg (1907 - 1989), as junior in the partnership Burg, Lodge & Burg (1936- [practising now as BILD Architects]) The buildings the firm designed during the latter half of the 1930s were modernistic and representative of the period, their numerous commercial buildings setting a stamp on the centre of Pretoria, for example Salisbury House (1937), Amanda Centre (late 1930s).
7 Philip L. Goodwin, Brazil Builds: *Architecture new and old 1652-1942*, New York, MoMa, 1943
8 The first graduates of the Pretoria School were instrumental in disseminating the Modern Movement, and in particular in regionalist form, through the *platteland* (rural areas) - Gawie (Gabriël) Fagan (1925-), as in-house architect for *Volkskas* Bank (see Melinda Silverman, " 'Ons bou vir die Bank': Nationalism, architecture and Volkskas Bank" in Vladislavic and Judin, 1998, p128-143), designed more than 200 branch banks throughout the country; Johan de Ridder (1925-) revolutionised the design of Afrikaner Calvanist churches (for example Dutch Reformed Church, Lyttelton, 1959); Karl Jooste (1925-1971) gave distant hospitals a regional modern aesthetic (for example Tshilidzini Hospital, Near Louis Trichardt, Limpopo Province, late 1960s); Wynand Smit (1923-1999?) designed for the farmers co-operatives in sculptured concrete forms (for example Tobacco Co-operative, Mokopane, Limpopo Province, 1950s); Jan (Johan) van Wijk (1926-) in particular for the monumentalising of the modern in service of Afrikaner culture (for example in the Office of Meiring Naudé, the SABC Building, 1950s, Sea Point, Western Cape).
9 See Calderwood (195-)
10 The coding is perhaps indicative of the bureaucratic thinking of the exercise, with NE being "Non-European", 51 the year 1951 and 9 indicating experimental plan type 9.
11 Angela Butler, "Issy Benjamin – aspects of his Durban Architecture" Durban, *Natal Provincial Institute of Architects Journal*, Issue 1, v 12 1987 p8
12 Dennis Radford, *A Guide to the Architecture of Durban and Pietermaritzburg*, Cape Town, David Philip Publishers, 2002
13 Some of the most interesting buildings and environments in Cape Town include the Cavalla Cigarette Factory, Salt River, by Max Policansky, 1938; The Cape Town Foreshore Development, Cape Town City Council, 1948; The Langa Township Plan, Cape Town City Council, 1940-1955; Pinelands Garden Village Plan, by Thompson, c. 1950; House Fagan, Camps Bay, by Gabriel Fagan, 1965; South African Broadcasting Corporation Building, Sea Point by Jan van Wijk, c.1968; Scott Road flats, Kenilworth by Adele Naude and Tony Dos Santos, 1969 and The University of Cape Town Sports Centre by Uytenbogaardt and Macaskil, 1976.
14 Herbert, 1975: 227
15 Originally published 1933 and republished as a facsimile in c1985 through the initiative of Amancio d'Alpoim Guedes, then head of the Department of Architecture, University of the Witwatersrand.
16 See http://ceroi.net/reports/johannesburg/csoe/html/nonjava/Conservation/built/state.htm
17 Le Roux (1990, 1991, 1993)
18 The current name for the provincial institute of architects, having had several predecessors
19 Sir Bannister Fletcher, *A History of Architecture*, 19th edition, London, Butterworths, 1987
20 The Architectural Documentation Project is based in the Centre for African Studies and the School of Architecture and Planning at the University of Cape Town (UCT). This is funded by the National Research foundation in South Africa and is the central initiative in the region. Project members include: Lucien Le Grange, Iain Low and Noëleen Murray.
21 To see further information on the national heritage agency in South Africa, see the web site http://www.nationalmonuments.co.za/intro.htm.

Educational design and modernism in West Africa

This paper describes the historical context to the development of a number of educational institutions built in Nigeria between the late 1940s to the early 1970s, which roughly cover the main period of modernist era architecture in West Africa. It focuses on their historical context, the issues and characters related to their construction and design. It then goes on to discuss a number of these schools' contemporary physical state and use. It concludes by evaluating the success of these school projects in their fifty years' existence and their role as agents of development at policy, architectural and social levels. It argues that the educational buildings built in the modernist era in West Africa have had a wider historic legacy encompassing the socio-cultural and political as well as the physical.

OLA **UDUKU**

ARCHITECTURE AND COLONY

WEST AFRICA EARNED THE SOBRIQUET in the colonial era the "armpit of Africa", in recognition of its oppressive tropical climate and its association with tropical diseases of high morbidity, prior to the advent of modern medicine in the 1920s. The region's difficult climate for European settlers, coupled with its strategic socio-economic and political significance as a source for post-slavery legitimate trade in cash crops and a route to Africa's rich interior became central to the area's status and development from pre-colonial times to early independence.

Unlike the parts of Africa that were able to sustain a settler population, West Africa was always more reliant on 'indigenous' forms of devolved governance, at all administrative levels. This in turn led to the early realisation and establishment of educational institutions for the local elites who were entrusted with the day to day administration of the region, aptly illustrated in Lord Lugard's 'Indirect Rule' policies in Northern Nigeria.

In much of West Africa the Western educational legacy has historical roots which began with the establishment of religious or "missionary" schools for the coastal elites, prior to the formal abolition of the slave trade in the 16th Century, where mainly the sons of rich traders could gain an initial education before being sent to complete their education in Western Europe.

The predominant missionary societies: the CMS (Church Missionary Society, or Anglicans), the Methodists, the Presbyterians, the Baptists, and the Roman Catholics, set up formal missionary institutions, comprising the church, some form of dispensary or hospital and a basic educational institution providing education in the three 'r's

and religion, alongside the colonization of the region by the various colonial powers.
During colonization, from the later part of the nineteenth century to the early part of the twentieth century, various approaches to education were adopted in the different colonies. French colonies (Senegal, Côte d'Ivoire and Dahomey, for example) adopted a more French metropolitan approach to education, with the similar "French lycée" systems instituted and a ranked elite educational hierarchy in place which ensured that the colonies were part of metropolitan France. The German colonies (Upper Volta and Togoland) took a more technicist approach where the earlier Basel Mission had initiated the foundation of technical and educational colleges which provided the immediate needs of what were seen as predominantly agrarian colonies.

BRITISH WEST AFRICA, however, had an *élite* set of missionary schools established by the early twentieth century followed by a number of (colonial) Government Colleges, whose duty it was to educate the indigenous population to an intermediate level (normally upper secondary) of literacy to become civil servants in the colonial administration, a select few being given the chance to be sent on scholarship to further their education in higher educational institutions abroad. The coastal elite families had already instituted this tradition of further education overseas privately through their own not inconsiderable financial means.
By the end of colonial rule, there were still more missionary-funded educational institutions funded by a performance related grants-in-aid scheme than there were Government Schools. Most of these schools were basic in appearance and function, with wattle and daub open air classrooms being the norm in rural areas and basic blockwork schools springing up in the new urban native residences. The few *élite* schools and colleges were mainly to be found in urban areas and were of largely imported construction materials with a complement of teachers from Europe.

IN ANGLOPHONE WEST AFRICA the political situation at the end of the World Wars, which had resulted in the return of a number of demobilized army volunteers with little in the way of compensation for their efforts in the war, combined with a growing self-independence movement led to the colonial authorities having to reassess their developmental policies in West Africa. There had always been a demand for qualified indigenous manpower in the colonial administration to cover for the still difficult tropical conditions that the colonial administrators found difficult to endure and the nascent West African *élite* became more vocal in their demand for better and good quality education.

BY THE END OF THE 1930s, there were no fully-fledged higher education institutions in anglophone West Africa, only the Fourah Bay College in Sierra Leone, the Yaba Higher Education College in Lagos and Achimota College in the Gold Coast of Ghana, all of which awarded higher education certificates and not full tertiary degrees. The higher education commission for the British Colonies in its 1939 report suggested there be a degree awarding institution for the region set up to make up for this lack which resulted in the founding of the University of Ibadan, initially a college of the University College, London.1
In West Africa there had been instituted a tradition of self-help community groups who also often helped build their own primary schools but needed help with technical equipment and manpower for the schools' shells that were built through these efforts. These schools were complemented by the more standardised missionary and government colleges that tended to be better built, financed and more sought after as gateways to Western education.

DURING COLONIZATION, VARIOUS APPROACHES TO EDUCATION WERE ADOPTED IN THE DIFFERENT COLONIES

SECONDARY SCHOOLS had a similar development trajectory to primary institutions, although some communities were able to successfully work with the local missions to develop well regarded institutions, that had links with the further education colleges and affiliated British universities, such as Edinburgh and St. Andrews University for medicine amongst Presbyterian missionary colleges and British Theological colleges amongst the CMS colleges.
Up until nearly the end of the colonial era much of the institutional architecture built was carried out under the aegis of the colonial Public Works Department (PWD) or the various technical wings of the missionary institutions. The template for much of educational building had been adapted and adopted from other colonial developments in South East Asia and, to a lesser extent, from a notion of appropriate building and materials for the colonies as proposed by the PWD engineers (the PWD comprised mainly engineers with a small component of architects).

MODERNISM MEETS WEST AFRICA

THE MODERNIST ERA in West Africa can roughly be placed at the period preceding World War Two up until the mid-1960s, being the decade of independence or


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Fig. 1. **Godwin and Hopwood**, *Christ Church Cathedral School*, Lagos, c. 1957

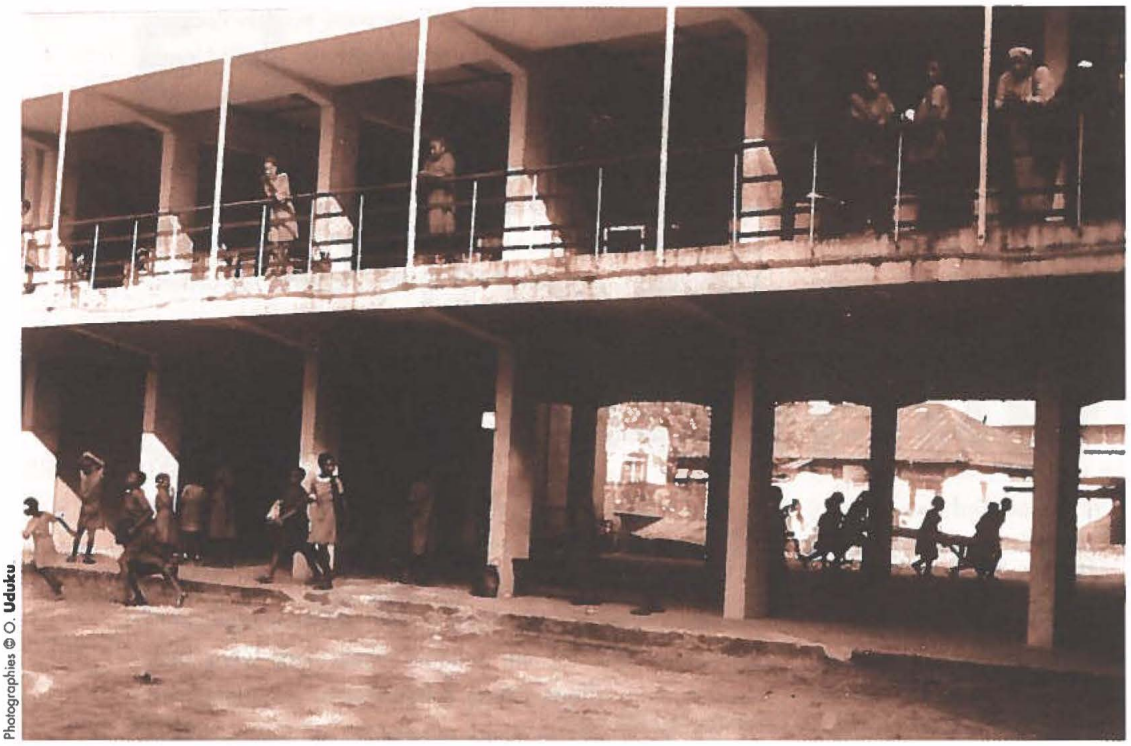

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Fig 2 .
Godwin and Hopwood,
Christ Church Cathedral School, Lagos, c. 1957. Classroom layout and "pilotis" ground floor structure.

Fig. 3.
Godwin and Hopwood,
Anglican Girls Seminary School, Lagos, c. 1957. Extensive use of shading devices.

self-rule for much of the region. With the results of the various commissions on Education discussed and the impending departure of the large administrative infrastructure in West Africa after the Second World War the colonial government of the day saw it fit to ensure that there was the following through of its planned policies for its institutional citadels of learning promoted by the Mellanby commission and other reports.

THE END of the Second World War in Europe had also resulted in a upsurge of architecture on the continent and therefore a surplus of new architects who could and would be commissioned to engage in the development of new architecture for what was soon to become the British Commonwealth. Some of British West Africa's rising stars in the modernist era which followed would have these roots. James Cubitt had been in the technical and planning corps in Burma whilst Fry had been stationed in the Gold Coast (Ghana) during World War Two. They were invited (in the case of Max Fry) and had it suggested (in both cases) that they work on education projects in Ghana, which gave an introduction to both institutional and private commercial work in the region.

BRINGING with them ideas gained from the naval research and work in Burma on thermal comfort in the tropics[2] as well as the ideas from their involvement with the Modernism movement in Europe and the influential CIAM conferences which had taken place since the inter-war years in Europe, the architecture being proposed and, to a large extent, designed with little opposition in West Africa rapidly took on a new look different from the former colonial template.

Designed with an initial emphasis on cost effectiveness, functionality and climatic-response, educational institutions quickly became a key primer for design in West Africa as the programmatic function of the educational block allowed emphasis to be concentrated on the elements of detail mentioned above. With colonial government funding and, later on in the case of Nigeria, UNESCO/IDA funding for a number of primary and secondary school building projects to cope with the growing demand of increased access to education.[3]
Max Fry was joined by Jane Drew in his practice, James Cubitt worked with a number of partners including John Baker and Kenneth Scott, whilst the Architects Co-Partnership had partners Leo De Syllas and Michael Grice working with their Lagos-based architects, John Godwin and then Alan Vaughan Richards to work on jobs commissioned in West Africa. John Godwin and his wife, Gillian Hopwood, then went on to form their own practice, as did Alan Vaughan Richards.[4]
Fry and Drew were later commissioned to design and build much of the Mellanby-approved University of Ibadan in Nigeria, whilst James Cubitt was commissioned to design what initially was the College of Technology in Kumasi and, later on, the sketch plans for the University of Nigeria at Nsukka. Alan Vaughan Richards became also in the 1970s involved in the master plan and design of housing and hostel quarters for the University of Lagos in Nigeria.
Although there had been earlier design adventures into higher education in West Africa, Fourah Bay, Sierra Leone, Legon, Ghana, and Yaba Higher College, Nigeria, these had a clear neo-colonial imprint. The new higher institutions designed and, to a large extent, built by these new architects were to be ground-breaking in

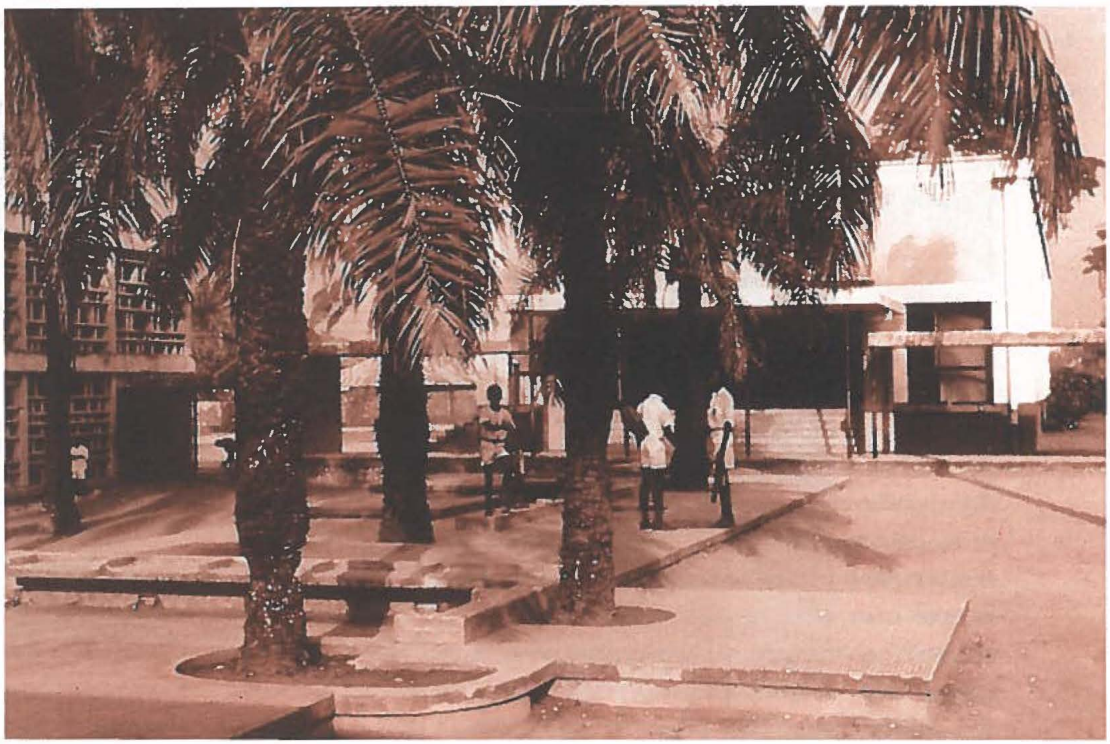

Fig 5.
Baptist Academy, Lagos, Auditorium in the background with covered walkway to right, and screen walled classroom to left. Note use of palm trees and landscaping in courtyard.

Fig 4.
Godwin and Hopwood, *Anglican Girls Seminary School*, Lagos, c. 1957. Large metal framed windows.

their approach. The documentation which followed in the international architectural press is to some extent evidence of this. Their robustness and continued use up until today, more than 50 years after much of the work had been commissioned, is probably a better measure of the success of the architecture of this era.

THE PROJECTS: AN ANALYSIS

THE EDUCATIONAL PROJECTS IN WEST AFRICA can be analyzed climatically and by category, this section will attempt a combination of both.

PRIMARY SCHOOLS

PRIMARY SCHOOLS were built throughout Nigeria in the late 1950s and early 1960s as part of the government's drive to increase access to primary education in the eastern and western region as a result of short-lived "free primary education" campaigns. Much of the funding for the schools built by architects such as Fry & Drew and Godwin & Hopwood had, however, come from international sources. This often meant that construction budgets were well-funded and projects ran to schedule. Key primary schools of this era include Godwin and Hopwood's Christ Church Cathedral School and the Anglican Girls Seminary School, both in Lagos *(fig. 1)*.

Design

THE SCHOOLS ARE CHARACTERIZED by their long single bay plans and use of fenestration and louvres as both environmental and design elements. They were also set on a *pilotis*-like ground floor which was designed primarily as a free, open space, without walls and which allowed access to and ventilation of the upper floors *(fig. 2)*. The roofing of these schools has always been basic, either gable ended or lean-to, which is appropriate to the relatively shallow sectional depth of the plan.

Environmental Considerations

These primary schools, in keeping with the modernist ethic in which they were designed, are characterized by the decisions motivated by environmental design considerations. Key amongst these have been orientation, use of shading and choice of fenestration and finally design layout *(fig. 3)*. Where possible, these schools were oriented at right angles to the prevailing south-east wind to enable each block to have maximum exposure to cross ventilation, the most effective method of passive cooling in warm, humid climates.

The use of shading devices on the North and South or, where unavoidable, the west-facing façades and as a means to cut out late afternoon sunshine is also an environmental design decision that is followed in many schools. There was a limited use of fenestration as an aesthetic device, but this is the exception to the rule in the design of these budget-controlled schools. Windows were, however, designed to be as large as manufacturing permitted to allow for optimum air entry and thus air exchange and passive cooling to take place.

The elongated slim plan favored by Godwin & Hopwood, Fry & Drew and other architects of the modernist persuasion in their primary school designs was evolved in response to environmental design tenents, suggesting that single depth or non-double banked plans achieved the optimum benefits of cross-ventilation in warm, humid climates *(fig. 4)*.

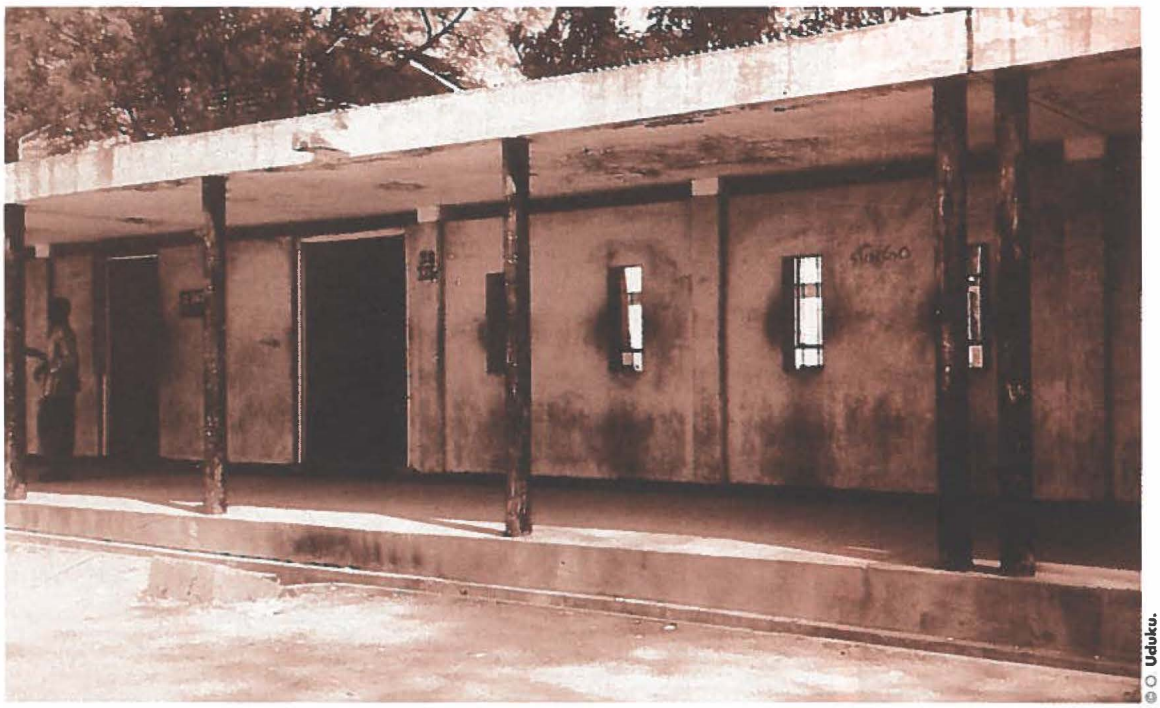

Fig 6.
Barewa College Classroom, Lagos, block showing small windows, and horizontal light slot between roof and wall.

Materials

THE CHOICE of building materials was also influenced by the modernist intentions of the architects. Thus the choice of single skin, walling materials was also aimed at minimizing heat gain by and load on the fabric. The post and beam concrete construction also allowed for the *pilotis* approach for the ground floor and the structural and material clarity of the building, as espoused in the Modernist tradition.

SECONDARY SCHOOLS

SIMILAR TO THE PRIMARY SCHOOLS, secondary school building was a priority for politicians and planners, as with increased access to primary education, there was a resulting demand for secondary education. In the 1940s there were more religious-run schools than state schools. Northern Nigeria had more state influence on education due to the predominance of Islam and late arrival of Christianity to that province.

Two schools: Barewa College, Zaria and the Baptist Academy, Lagos, probably best encapsulate modernist engagement with Secondary school design in that era. The architects involved with the construction of Barewa College were the Northern Nigeria Public Works Department, whilst the Baptist Academy was designed by Godwin and Hopwood. Both are still in use as secondary schools.

Design

BEING IN DIFFERENT PARTS of the country with different climatic zones there is a clear distinction in design between both schools. As with the primary schools, the Baptist Academy, Lagos has been designed with the requirements of a warm, humid climate in mind, whilst Barewa College, Zaria was designed in keeping with the environmental requirements of the hot, dry savannah climate in which it is located.

Although designed within a notional courtyard-grid layout, the main classroom blocks at Baptist Academy have a clear alignment and orientation, to take advantage of the prevailing winds. These blocks were again designed to be long, single depth structures. However, there has been less concession given to creating open *pilotis* areas within the classroom blocks. The auditorium and open sided, covered walkways connecting the various structures however do have this free flow of space *(fig. 5)*.

Barewa College is a government institution that was designed in the 1950s. It is designed as a number of courtyards with classroom blocks and facilities arranged hierarchically around them. Courtyard design is both indigenous and environmentally appropriate for the hot-dry conditions. The further landscaping and associated external works to the College have further enhanced its environmentally appropriate ambience. Similarly, classroom design at the College has responded to both cooling and lighting needs in hot-dry climatic conditions. Large windows are only placed on one side of the classroom whilst thin slit-like voids are placed above and below normal window level to allow for non-glare writing conditions as well as to enable stack effect thermal cooling to take place in the evenings. This form of cooling being most effective in climates with substantial diurnal temperature swings such as Zaria's hot, dry conditions *(fig. 6)*.

Environmental Considerations

THE KEY ENVIRONMENTAL considerations addressed in these two secondary schools have been to deal with cooling and, in the case of Barewa College, Zaria, both

cooling and lighting. Baptist Academy, Lagos, has a more sophisticated realization of the earlier-described primary school designs. However the key elements relating to orientation, fenestration and shading remain unchanged. Built in an area of Lagos that was then suburban, there has been the development of a more spread out plan allowing for the optimized use of orientation.

Barewa College, by virtue of its location and funding, has had a more comprehensive environmental approach incorporated in its design. The courtyard design and use of different forms of wall opening being the best examples of this. The walled courtyard acts as a climatic filter in hot -dry climates, as evidenced in Arabic architecture, thus this is an effective way of controlling an otherwise harsh, dry environment. The use of landscaping simply furthers this comprehensive environmental approach, as trees and shrubs can act as effective dust and light filters as well as shading devices. The articulated modulation of openings and fenestration also acts to reduce excessive dust, common in this climate as well as to enable the buildings to achieve night time structural cooling through the stack effect ventilation discussed earlier.

Materials

As with the primary schools, both schools were built using standard materials of the time. Concrete breeze block, 'Crittal-Hope' windows, precast concrete louvres (in the case of the Baptist Academy Auditorium) and, in both cases, local stonework. The use of local stonework in both schools contextualizes both buildings within their location, where local stonework is easily accessible, and were used in both cases to create an original, locally identifiable aesthetic identity.

TERTIARY INSTITUTIONS

THE BEST-KNOWN MODERNIST STRUCTURE in West Africa is Fry and Drew's University of Ibadan project. [5]

Design

The University of Ibadan was commissioned by the then colonial government and, with their track record on institutional school building throughout West Africa, Fry and Drew were appointed as architects of the scheme. The University was designed and conceived at a period where there was both funding and political enthusiasm for local institutions of further education, as the colonial era drew to a close and these institutions would have political as well as educational significance *(fig. 7)*.

With the site and financial considerations being well-organized in advance by the then government, the couple were able to complete both the campus master plan and the majority of the structures within their modernist ethic. The project was conceived and designed to entirely modernist principles, by the practice.

The success of their planning is evidenced in the continued use of most of these structures, with minimal adaptation, in contemporary times. The master plan and individual building designs have proved functional and environmentally responsive at a general level. All the original buildings are oriented for optimized passive cooling and are generally single-banked in design for the same reasons.

Environmental Considerations

IBADAN, situated in the warm, humid zone, was designed with environmental considerations uppermost in its conception. The master plan sprawls across the contours of the site, determinedly orientated north/south, in long thin strips to take advantage of prevailing winds for ventilation requirements. There is the continued use of glass louvres and concrete shading devices such as screen walling on north and south facing walls as a form of protection from direct sunlight and overheating. West- and east-facing walls are generally blank. The campus comprises teaching, residential and public facilities. The teaching facilities consist of lecture theatres, the library and laboratories which were designed particularly with environmental considerations in mind, learning blocks being oriented east/west, with the long, screened windows facing north or south and single depth in design. The library was designed with access corridors on each bank and interior shutters to protect books from storm damage. Screen walling, with insect filters of copper mesh, were also incorporated on each major elevation. The residential blocks for students were designed around courtyards as 'halls', the design keeps the main blocks oriented appropriately for optimum cross-ventilation. The blocks focus in on the courtyard which is an external social space in its own right, being semi-overlooked by the screen wall-clad residential blocks. The basic design of these blocks has not changed although these structures have been most affected by the phenomenal increase in student numbers and subsequent overcrowding of rooms in halls of residence. The refectories in the halls were designed with breeze block walls, creating liveable space with minimal means while paying attention to environmental conditions.

Materials and Construction

THE UNIVERSITY OF IBADAN, built on a generous government commission, had a palette of materials based on framed concrete and infill breeze block construction. Pre-cast screen walling was also used extensively as were concrete louvres. For the refectory block, a folded concrete shell was used as a roof which was also used later for the Chapel. Whilst these materials were not indigenous, they were readily available for import and were used successfully under good contractual building supervision on major projects.

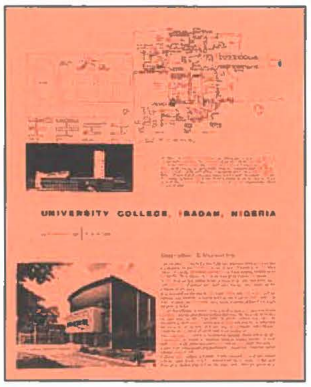

Fig. 7.
University College, Ibadan, Architectural Review, 1957.
Master plan and Trenchard Hall.

Fifty years later on, these spaces still work within the contemporary contexts to which they have had to adapt. This has often meant that buildings now endure heavy use by significantly more students than had been planned for and are subject to minimum maintenance and upkeep. Educational institutions built in the modernist era have generally survived well their fifty years of existence. The historical and socio-cultural background to their construction ensured that as educational institutions they were considered both physical and metaphorical manifestations of progress and development nationally and locally. In more contemporary times they compare well with education infrastructure projects which were built from the mid 1970s to the mid 1980s.

Having been built during a period of reasonable funding by the colonial government, international agencies and eventually by the new Nationalist government, these institutions were best able to benefit from modern materials and construction methods which these buildings and the modernist movement introduced to Nigeria, such as screen walling, and glass and concrete louvres.

West Africa's climate also is a key factor to the region's contemporary relationship with its modernist buildings. Just as climate was crucial to the evolution in tropical modernist architecture, tropical warm, humid climate conditions as experienced in most of Southern Nigeria, have meant that often, despite the best intentions of modernist design, an amount of mechanical cooling has had to be introduced; educational institutions at primary and secondary level having been less affected by this as their usage hours are limited, tertiary institutions, as illustrated by the University of Ibadan's library, have however had to have mechanical cooling introduced.

Conservation issues

THE NEED FOR CONSERVATION is becoming crucial as the warm, humid climatic conditions in much of Southern Nigeria are particularly damaging to wood and are responsible for the accelerated weathering of external finishes such as concrete, paint and render.

The problem is compounded with educational buildings built in the modernist era that are generally government-owned. The education ministry or local authority to which these buildings belong is often in no position to finance conservation or long-term maintenance, where basic literacy and access to education remain key priorities. The University of Ibadan has been slightly more fortunate, as it has regional funding and also a growing alumni association, both of which contribute an amount to its continued conservation, upkeep and maintenance.

Conservation in Nigeria has limited coverage outside of national historic monuments which tend to be centuries old. The Museum of Traditional Nigerian architecture in Jos, in particular, is involved with conserving traditional mud buildings. The Legacy group in Lagos involves itself with early Western and Brazilian architecture in Lagos as well as traditional architecture throughout the country.

There is clearly the need, therefore, to extend the work of the official conservation group in the Nigerian government's department of museums and antiquities to include contemporary artefacts and architecture. Similarly, the expertise and knowledge needed for conservation is limited, few practising architects are concerned with conservation issues and as discussed the conservationists that exist are interested in older structures.

A POSSIBLE SOLUTION would be the establishment of a dedicated programme, possibly attached to the existing schools of architecture, and funding partnerships with UNESCO and/or Western universities to create a local training environment for conservation. This would retain skills within the country and frame the content of the courses in response to relevant issues.

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NOTES

1 British Colonial Government, HMSO, "The First Ten Year Policy on Nigerian Education"

2 See for example Bedford T., "Environmental Warmth and its Measurement", War Memorandum 17, 1946, and Web C. G, "The Singapore index, RIBA Journal, September 1959, pp. 382-383.

3 In Ghana the colonial government funded the first and second Gold Coast Schools Programmes, (1945 – 1955) whilst in Nigeria the UNESCO/IDA project funded school building in the Lagos area between 1958 and 1966. Neither project attained the cost-effectiveness strived for due to building materials and supervision costs. See Uduku N.O. Factors Affecting the Design of Secondary Schools in Nigeria, PhD Thesis, University of Cambridge, 1992, and Le Roux, Hannah, *Critical Approaches to the Discourse of Climatic Responsiveness in Modern Architecture in West Africa*, M.Arch thesis, University of the Witwatersrand, 2002

4 Uduku N. and Le Roux H, *AA in Africa*, exhibition catalogue, January 2003.

5 Drew J. "Recent Work by Fry, Drew and Partners, and Fry, Drew Drake and Lasdun in West Africa," *Architectural Design*, May 1955.

LUGS, STUBS, BRACKETS, CLAMPS, AND DOWELS-AND BOLTS INTO THE CONCRETE:

Window **fixings** at the **Bauhaus**

In these days of proprietary fixings, proprietary detailing, and often overworked design, it is salutary to explore the ways in which innovatory design and construction of the early Modern Movement were created from first principles, and refreshing to see solutions to new issues as integral expressions of the overall personality of the building - and therefore also of its overall design. No more and no less. Only a very close liaison between design and construction, through consultative detailing and rigorous precision on site, could have achieved this synergism.

How were window frames, and other secondary elements, fixed to early reinforced concrete buildings, how were problems of fixing overcome, and how much did the issue of fixing influence design? *(figs. 1 and 2[1])*

JAMES **LEWIS**

ALTHOUGH WINDOWS are the paramount means of expression in buildings and, since the Modern Movement, have been given so much additional prominence, and although the larger windows become, the more crucial is the fixing of their frames, it is inconsistent that fixings have as yet received so little exploration. In the volume of papers of the 1998 Seminar *Reframing the Moderns*,[2] there is only one incidental reference to how window frames were fixed (though the fixing of replacement windows is sometimes shown).[3]

IN AN EVEN WIDER range of sources, there is a dearth of information on the construction of the Bauhaus. This in contrast to the wealth of available references on its history, design, function, teachers, students, activities, output, and cultural, social and political significance and consequences. In a major publication that focuses on the design and history of the Bauhaus building itself,[4] information about its construction is incidental. There are however, photographs of the buildings during construction,[5] and chapters on the building's restoration and conservation which commenced in 1976. The fact that the original construction drawings of the Bauhaus no longer exist, has not helped to encourage research into this aspect and is a significant reason why "It is only now..... that the history of the building's construction is being written".[6]
In this context, it would be surprising to find material on the fixings of window frames - but all the more important to try to do so.
An opportunity for this author to visit the Bauhaus and to examine archive material in September 2002[7] may have gone a little way towards the identification of some clues.

fig. 1

THE PRELIMINARY exploration which follows, of fixings of window frames at the Bauhaus, has taken place twenty-six years after the commencement in 1976 of the Bauhaus restoration program, and seventy-six years after the construction of the Bauhaus was completed. Records of the 1976 restoration, on which work is continuing, now provide valuable information on the original construction. In addition to this new documentation, there is continuing work on the building involving useful exposure of some original details; but on the other hand, there have been some modifications that make architectural exploration of this kind even more complex than it otherwise would be.

NEW DARK GREY anodised aluminium window frames have been installed on all elevations. These new frames are fixed to the original steel main-frames, which in turn continue to rely upon their original fixings into concrete and brickwork (albeit now with a lighter load). This says a lot for the quality of these original fixings, but does little to help the researcher of fixings which remain buried in the material they connect into! Informed conjecture is still required to determine their nature and the construction techniques by which they were applied. Another modification is that the gap that once existed between intermediate floor slabs and windows of the Workshops, allowing air and sound to pass between floors, has now been closed.[8]

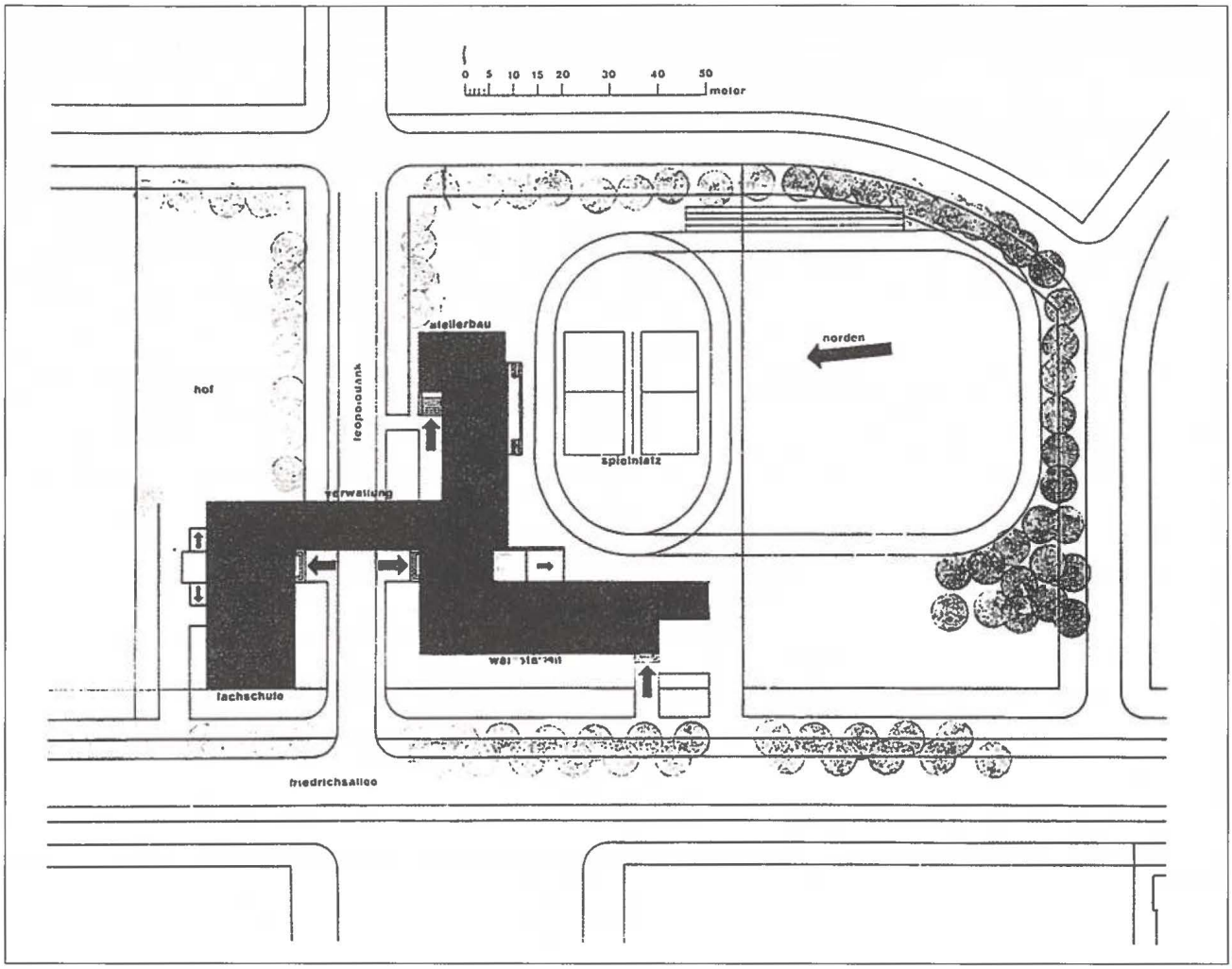


fig.2

ELECTRIC POWER AND TOOLS

THE AVAILABILITY of electric power for the construction of early European buildings of the modern movement can be accepted, but the availability of power tools is another matter. As an earlier article in DOCOMOMO Journal demonstrated,[9] Black & Decker's first power drill in USA was patented in 1910, but it was 1932 before the first power drill was introduced in Europe by Robert Bosch.
This European introduction of power drills therefore came after the earliest European examples of reinforced concrete building construction, such as those by Auguste Perret (1903) and Adolf Loos (1910) and after such well known buildings as the early Paris houses of Le Corbusier, the London Empire Stadium (1923), the Shredded Wheat Factory at Welwyn Garden City (1925) - and the Bauhaus itself (1925-26).

NON-PORTABLE electrical drilling machines were common in German heavy machine production at least after World War 1,[10] but there remains the question as to whether these machines were used on building construction sites. From close examination of twenty-seven photographs taken during construction of the Bauhaus[11] there is no evidence of equipment of this kind, neither portable nor non-portable. On another photograph of one of the Bauhaus Meisterhouses and the men then working on it, there is again no evidence of power tools, equipment or machinery.
It is known however, from archival documents, that "bolt-fixing must have been a huge amount of work".[10]

IT WAS the *absence* of power tools that probably contributed more to structural innovation, ensuring as it did, that what was done was integrated into the construction process, and achieved from first principles in an ethos of design and construction rigor.
Of course, if the option did not exist, then there would have been no conception of a "need" to insert bolts into hardened concrete! However, bolts were inserted into concrete formwork (shuttering) before pouring, so had the idea, a "wish list", emerged by 1926, for a tool that would make it possible to drill hardened concrete, so as to avoid the excruciating precision required at the time of concrete frame design and construction? Robert Bosch in Stuttgart must have gotten the idea (of the first European hammer-drill) from somewhere - or someone. It seems more logical that it came from German construction, than for the idea to have crossed the Atlantic - taking a few years to develop before being made available in Europe in 1932. That it should emerge during a time when forms of construction in Germany had been achieved that could have made extensive use of such a tool, is

TABLE ONE: TYPES OF WINDOW IN THE BAUHAUS

LOCATION	TYPE	PLACING	FIXING
Workshops			
east, west & north (end) elevations	curtain walls	projected	lugs & brackets
south (end) elevation	conventional	within apertures	*see note below*
subfloor	conventional	within apertures	
stairs	curtain wall	within apertures	
Technical school			
north, south & east elevations	on face	surface (across cols)	bolts and clamps; with lugs/brackets at sill & head
west elevation	conventional	within apertures	
subfloor	conventional	within apertures	
stairs	conventional	within apertures	
Bridge			
east & west elevations	conventional	within apertures	lugs & brackets
			ditto above
	on face	surface	
Auditorium link			
north & south elevations	conventional	within apertures	
sub floor	conventional	within apertures	
Studios / Prellerhaus			
upper floors	conventional	within apertures	
subfloor	conventional	within apertures	
stairs	conventional	within apertures	

Note Fixings of conventional windows are assumed to be steel lugs into brickwork joints (or into wooden dowels in brickwork joints).

almost too coincidental but to be true? Will evidence be yet forthcoming to suggest that the new availability of power tools facilitated changes to fixing methods in later buildings of the European Modern Movement, both those by Gropius and those not (in the little time that was left before dissolution).

STEEL WINDOW FRAMES AND THEIR FIXINGS

THE STANDARD fixing detail for Crittall windows applied for at least thirty years (from 1926 *see below*) and showed timber fillets in horizontal brickwork joints. Was the use of brickwork prolonged due to the ease of fixing it afforded, whether or not it was externally rendered to look like concrete; for example, Lescaze's Headmaster's House at Dartington (1932)? This was ten years later than the earliest example of reinforced concrete in England - and by an American architect in New York who by then would have known of Black & Decker power tools!
FIXING DETAILS from 1926 by the steel window manufacturer Crittall,[12] show fixings into concrete and/or brick using 5/8 inch (16mm) angled steel lugs. In concrete these are shown set into apertures (continuous grooves?), filled with mortar; the lug does not enter the concrete.
For brickwork, the lug extends into the brickwork joints. The steel window frame is bolted to the right-angled exposed end of the lug.
The frames shown are standard steel window frames set into an aperture in masonry (concrete or brickwork) within the reveals, as are several other examples of similar fixing details into brickwork by German manufacturers eg[13 & 14] - the latter showing lugs set into "brickwork or concrete" as well as into joints.

THE STEEL WINDOWS used in the Bauhaus were supplied by Nordische Eisen-u. Drahtindustrie "Norddraht" of Rostock.[8 & 14]
That Gropius in 1925 also knew of Crittall and of their fixing details can be assumed, as Fenestra-Crittall windows appear in the Building World Catalogue for 1929/30 [14] and no doubt also in previous years. Gropius subsequently used Fenestra-Crittall windows in the Dessau Torten housing estate (1926-28); double storey blockwork walls and cross-walls with window fixing lugs *(assumed)* into blockwork joints and cast into precast concrete lintels.[15]

BAUHAUS DESIGN AND CONSTRUCTION TECHNIQUE

THE BAUHAUS is surely the most well known, and most documented, example of the use of steel windows in a primarily reinforced concrete building. This renown is mainly due to the three-storey curtain wall on three faces of the Workshop block - which was to become an icon of the Modern Movement in architecture. "Window openings were no longer limited to holes in the wall, but could be made anywhere and of whatever size desired".[16] It was also due in no small way, to windows fixed to the face of the building, as in the Technical School and, in part, on the Bridge (a technique continued by Gropius in the Bauhaus Meisterhauses). These, with the Workshop curtain

wall, were the greatest challenge to the window fixing detailers. This notwithstanding in the Bauhaus, there are many windows of the conventional kind as well, placed into "holes in the wall" *(see table 1)*.

THE WORKSHOP curtain wall suggests that architectural design was not restricted at all by a need for technical conformity. Behrendt[17] was of the view that "(Gropius) is fanatically devoted to the physical conditions of his problem, fulfilling with exceptional skill its economic, its technical and its formal needs ... Gropius himself experimented with new methods of construction, with new materials and techniques, always striving in his buildings for the final type that would express their function as well as the nature of their material substance."Burkhardt[6] suggests that the Bauhaus was built using "then familiar technologies for implementing functional and architectural concepts and ideas" with "relatively few structural innovations or experiments" and goes on to suggest that Gropius achieved little improvement in curtain wall design over his earlier buildings, no doubt in particular reference to the Fagus factory (1911) in which "the steel and glass elements are often cited as the first curtain wall".[18]

THE FAGUS FACTORY was built in brickwork, requiring little innovation in the fixings of window frames. Nevertheless, window frame fixing techniques were paramount for any building where windows were a large and innovative feature, whether there were precursors or not. If window frame fixings failed, the building failed! In the Bauhaus, the weight of steel alone, in the curtain walls especially, would have required that special consideration be given to fixings, as well as the special requirements of fixings to reinforced concrete. The projecting forward of the curtain wall beyond the column line and intermediate floor slabs, in the creation of the then unique spatial and physical relationship of the curtain wall with the structure, suggests that Gropius' innovation was in the detail of the fixings, as well as in curtain wall design as such.

THE BAUHAUS VARIETY of window types and their placing in relation to the external wall-face, required a complex and complicated variety of fixings. Whether or not such fixings had been used on previous buildings, window fixings were obviously a major preoccupation and concern prior to and during the construction of the Bauhaus. It has been suggested that Gropius was

WINDOW FRAME FIXING TECHNIQUES WERE PARAMOUNT FOR ANY BUILDING WHERE WINDOWS WERE A LARGE AND INNOVATIVE FEATURE, WHETHER THERE WERE PRECURSORS OR NOT.

not greatly interested in construction techniques[6], but at this time Gropius was under considerable pressure and in any case he would have delegated to the three former students in his office.[19 & 20] In whatever way it was done, someone in his office - and/or his contractors[21] - had to have been as enthusiastic about innovatory design and construction as Gropius was!

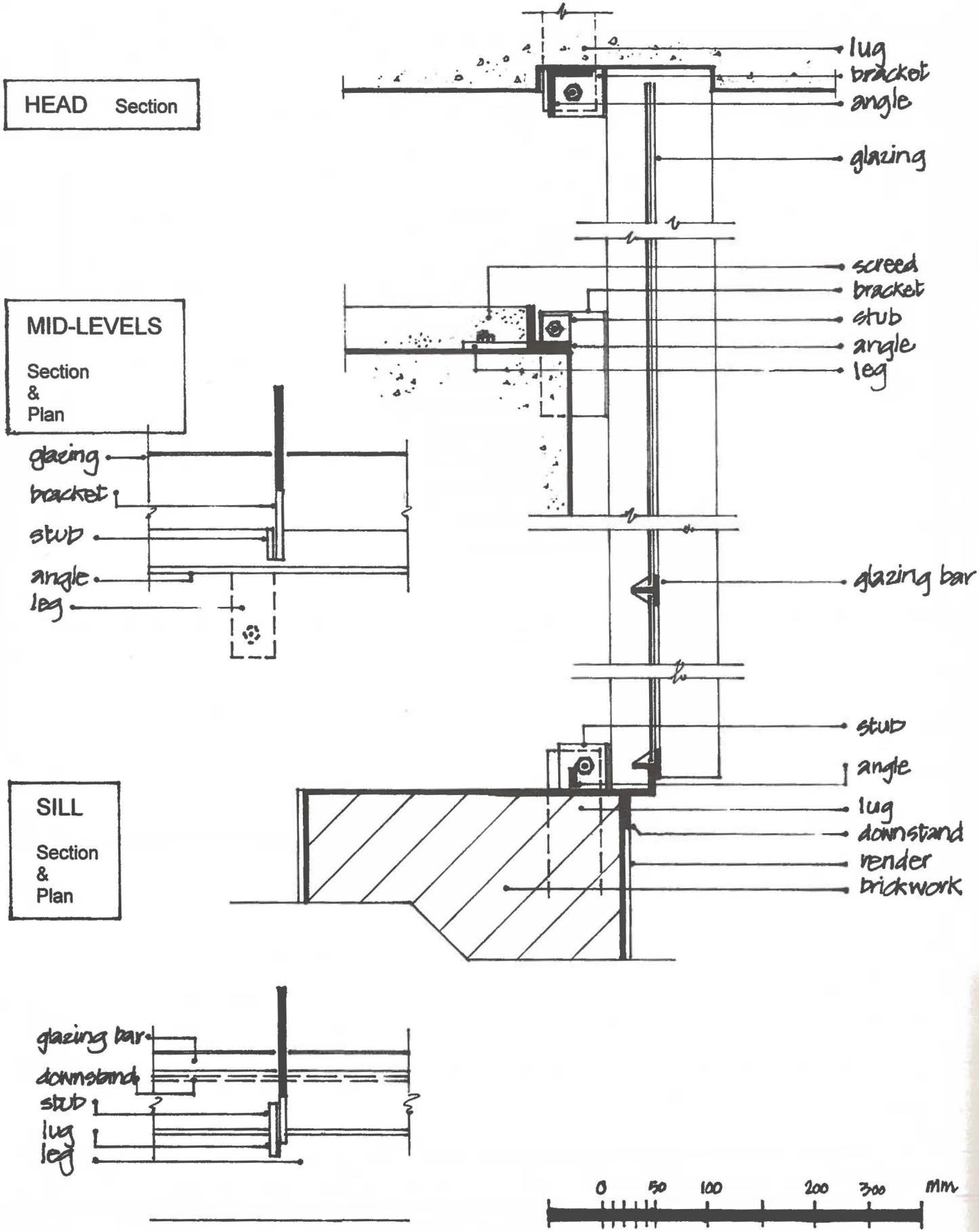
STRUCTURE OF THE BAUHAUS

ALTHOUGH THE MAIN STRUCTURE of the Bauhaus is of reinforced concrete, there are large areas of both primary and secondary structure in brickwork; ie: brickwork is used not only for infilling within the concrete frame, but also as loadbearing sections of external wall. Color coded drawings prepared for the 1976 restoration program[22] show distinctly the use of both materials in elevations, based on information extracted from photographs of construction in progress. The entire north and south end walls of the Studio apartment tower (the "Prellerhaus"), together with large areas of its Auditorium link, and the south end wall of the Workshop block are all shown as brickwork. There are additional areas of brickwork infilling between concrete columns, beams or slabs, on all buildings. Significantly, the undersill upstand at the lower level of the Workshop curtain wall, and for both sides of the Bridge, are shown as brickwork. Large numbers of window frame fixings are therefore into brickwork; some window frames having fixings into both brickwork and into concrete, viz:
- The staircase glazing over the two principal entrances have side fixings into brickwork, with sill and head fixings into concrete;
- The windows on the extremes of the east end of the studio tower have side fixings into both brickwork and concrete.

Fixings solely into concrete are primarily therefore:
- The Technical School windows that are on the face of the building, and of concrete columns to which they are fixed;
- The Workshop curtain wall has fixings into the intermediate concrete floors and into the concrete roof beam at its head.

Overall, there are more headfixings into concrete than there are side or sill fixings (assuming there to have been head fixings in all cases).

THE EXTENSIVE USE of brickwork at the Bauhaus, again raises the question of its provision of simpler fixing for frames, using brickwork joints. Where steel lugs are shown (on restoration drawings) and used, their insertion with precision into brickwork as it proceeded would have been less exacting and less time consuming as into concrete formwork before pouring, and precision would have been more assured. However, there are successful, if complicated, fixings into concrete and their technical design was exemplary, having now been tested in use for seventy-six years and assessed as satisfactory for continued use by the restoration program. Some fixings into concrete were demonstrably achievable and successful, but it is difficult not to conclude that such extensive use of brickwork was for the facilitation of fixings that it offered - and by the same means, perhaps a considerable saving of time.[19]



Window fixings at the Bauhaus

Workshop curtain wall fixings at sill, mid-levels & head

Date: October 2002
Scale: 1 : 5

Drawing number:
Bauhaus/01

fig.3

TYPES OF WINDOWS IN THE BAUHAUS

COUNTING the Workshop curtain wall as one window size, there are a total of sixteen sizes of window in the Bauhaus. In his pursuit of innovatory building, Walter Gropius was not one to make things easy for himself (what innovator had an easy life?). However, when classified according to their placing in relation to the external wall surface, there are three basic window types as shown in Table One:
- conventional (within masonry openings)
- face-fixed (and across the faces of concrete columns)
- curtain (projected beyond and/or on the external wall surface and floor structure.

Lugs, stubs, brackets, bolts, clamps, and dowels

For the three window types, of all sizes, there are three different basic window frame fixings *(see Table One)*:
- lugs and brackets
- bolts and clamps
- steel lugs into brickwork joints and/or concrete.

Lugs and brackets are not necessarily used in the same way for all window types; and the Technical School has another fixing system.

WORKSHOP CURTAIN wall fixings are shown in Figure 3[23], at sill, mid-floor and head.

AT THE SILL, there is a vertical lug which projects from the masonry sill, and a "sill angle" sitting on the top of the sill masonry with a flat steel plate projecting behind it which is bolted onto the top of the sill.

The function of the sill-angle is clearer at the mid-floor detail where, in addition to providing fixing points, it serves to spread the load of the curtain wall onto the floor slabs as well as the stop to the floor screed. For this second purpose, it is a larger angle than at sill level. The sill-angle is shown on Figure 3 as a channel, with its outer flange serving as a seat for glazing bars. The use of a channel here does not have visible confirmation, but it does conform in profile to what can be discerned both internally and externally. Externally, there is a visible steel downstand embedded in the render running continuously under the projecting steel sill *(see fig. 4) (figs. 3, 4 and 5)*.

AT THE TWO MID-FLOOR SLABS *(see fig. 4)*, the vertical steel main-frame has a rectangular plate bracket welded to it so that it can be bolted to the lug allowing the steel main-frame to be proud of the external wall face. Again, there is a sill-angle which has a short steel stub welded to it as an upstand where it meets the bracket. The upright stub and the bracket are bolted together. The sill-angle here provides a bearing

fig.6
Ise **Gropius**
with dog

fig.5

fig.4

for the load transmitted onto it via the stub and bracket.

AMONGST the photographs taken by Walter Gropius during construction of the Bauhaus[11] is an internal view at mid-level in the Workshop showing the curtain wall in place. At its base are projecting lugs with bolt slots precisely at alternate verticals of the steel main-frame *(fig. 6)*.
At the head, a fixing similar to that at mid-levels is used, but the stub is welded to a short length of angle (for reasons which are not apparent).
The junction of the two window types on the Bridge, on the face and conventional (within apertures), is shown on fig. 7 *(figs. 7 and 8)*.[24]
Regularly spaced lugs project from brickwork as brackets for the steel main-frame on the face of the building *(see fig. 8)*.

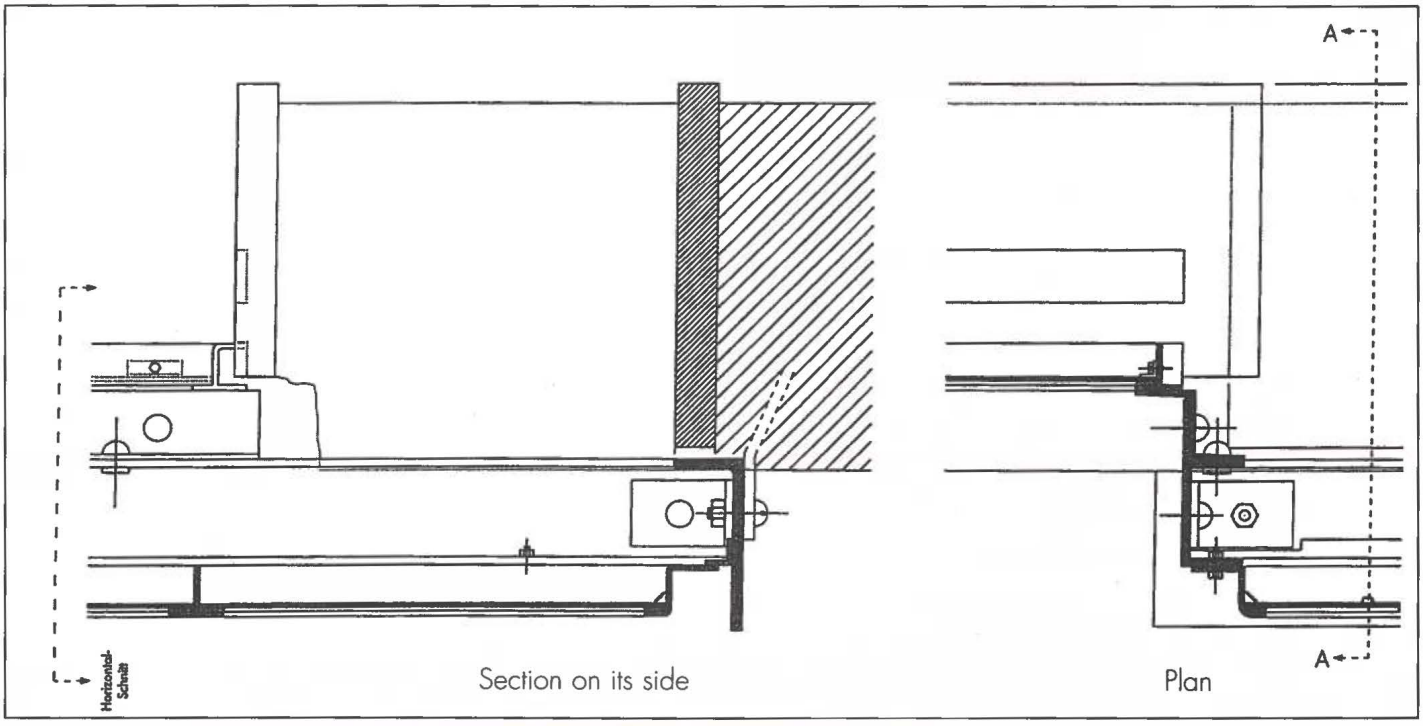
THIS DETAIL for face fixings is similar to that for the windows on the external wall face of the Technical School, where it is used in conjunction with bolt and clamp fixings to the column faces (fig. 9). (Source: Bauhaus Archive)
THE TECHNICAL SCHOOL bolt and clamp fixing, for windows on concrete column faces, are shown in fig. 10 *(figs. 10 and 11)*. In a number of photographs of Bauhaus construction in progress,[25&5] can be discerned regular projections in concrete column formwork/shuttering (similar projections can be discerned in brickwork columns; eg:.[25]
On the building now, clamps on the columns of the Technical School holding the steel main-frames to column faces can be seen, both from the exterior and from within, on the external face of columns *(fig. 12)*.
The bolt shanks would have been embedded in concrete during pouring, protruding through the formwork; the clamp and nut being applied in the process of the fixing of the steel main-frame to the column (by tightening of the clamp). Very interestingly, some built-in tolerance is achieved by this fixing method.

STEEL LUGS into brickwork joints (or wooden dowels or plugs) are assumed to be the fixing method for all windows set into masonry openings. The use of wooden dowels was not restricted to brickwork, dowels having been used for the fixing of external light fittings on the underside of the reinforced concrete canopies over the main entrances.
THE SILL-LEVEL upstand on the lower workshop floor, for example, being of brickwork, would have facilitated the insertion of steel lugs, but the task would have remained of building-in lugs with precision in their vertical and lateral spacing - almost as exacting a task as fixing lugs into formwork, pouring concrete around them, and ensuring they stay in place in the fluidity of concrete at that stage. Nevertheless, as illustrated, steel lugs into concrete can be seen in use, and are indicated in the drawings of the restoration program, usually in association with brackets. Bolts into concrete were therefore made less necessary, although the bolts into the columns of the Technical School are significant in this context.

PRECISION IN CONSTRUCTION

ALTHOUGH THE USE of lugs fixed into concrete or brickwork removed much of the need for bolts into concrete, it imposed an extraordinary demand for precision in their casting- or building-in. Fishtailed or not, each length of anker or lug would have had to be secured in position, regularly spaced and level, if horizontal, or vertically plumb and similarly equally spaced.
Where window main-frames were pre-drilled for fixing, this would have placed even greater demand on precision in construction.
What little evidence of the lugs can be seen on the outside, belies the effort that went into their placing. Nowadays, cast-in systems

fig.7



are designed to avoid such time consuming, and therefore costly, exactitude. That "bolt-fixing must have been a huge amount of work"[10] seems to have been a form of understatement that only Deutsche Gründlichkeit could have overcome?

CONCLUSION

There were two distinct methods of fixings for two, not entirely dissimilar window types in the Bauhaus; both were on the face of the building, one was projected beyond it.
The Technical School system, of a bolt into the concrete column with a clamp, was inadequate, technically and/or architecturally, for the projecting and very much larger and heavier Workshop curtain wall; but both types used the undersill bracket projecting from its masonry sill, a sill angle, bolted into the sill's upper surface, and head bracket as a lug projecting from a concrete beam or lintel.
Whether into concrete or brickwork, some significant modification is necessary to the detail used in the earlier article on this topic.[9] Taken from the only publication in English so far found to have included a technical drawing at all[26], the fixing detail for the Workshop curtain wall shows brackets bolted directly to concrete or brickwork, without the use of cast-in lugs, or brackets, or stubs, or other intermediary device. In whatever way the bolt got into the concrete - it now appears not to have been as simple as that.

BRIEF AND PRELIMINARY though this study has been, what does emerge from it is an insight into the careful, and now proven, competence that went into design from first principles of the window fixing systems in the Bauhaus building. It is satisfying to sense, even now, the research into systems of structure and of fixings that were to be used; and to see the results now of architectural and constructional minds then, at work with a problem that prevailed.
Not one to be sorted by a search through the catalogues with resort to an off-the-shelf solution, but one that could be answered only by ingenuity, competence, rigor and craftsmanship. Not one, even, that would result in a component that would directly and visibly contribute in all cases to the ultimate aesthetic experience of the Bauhaus building - but one without which that experience could not have been made enduringly possible.
A job well done. Now, due to the extraordinarily successful restoration program that has glowingly vindicated the original triumph, it is once again possible to experience the result. In its apparent simplicity, a building of glorious and refreshing space and light, epitomized by a freedom of access and of use - a symbolic rebirth.

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fig.8

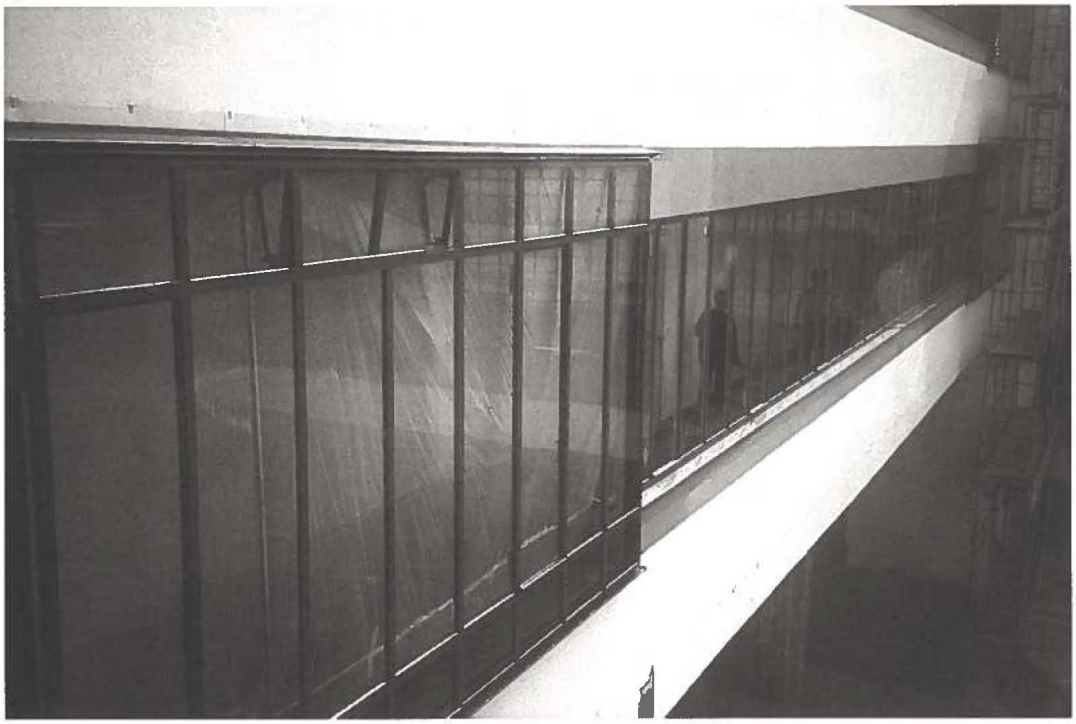

fig.9

Burkhardt, Berthold (2000) *Modern buildings and their windows: Some restoration experiences in Germany* (pp66-75). Reframing the Moderns: Substitute Windows and Glass (de Jonge, Wessel; Wedebrunn, Ola (Eds) *(see below)*
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Archives – photographs

Gropius, Walter (c1926)
Photographs taken during construction of the Bauhaus. Bauhaus Archive:
1.Werkstätten mit Blick entlang der Glasfassade. Im Hintergrund Ise Gropius mit Hund stehend (Workshop view of the curtain wall. In the middleground is Ise Gropius with standing dog) B 44 N. Bauhaus-Gebäude Dessau c1926
(Note: of all the photographs of construction in progress, this one is special in its inclusion of Gropius' wife, Ise, with their dog)

Archives - drawings

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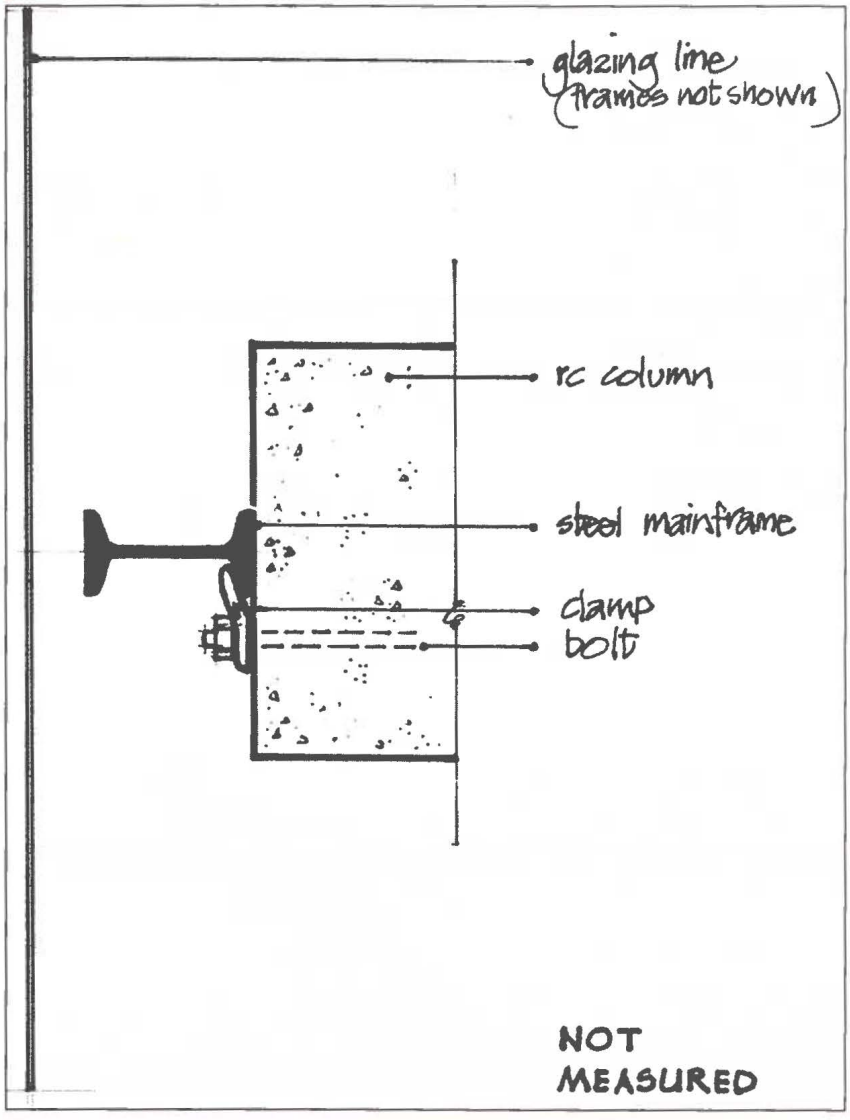
Generalsanierung Bauhaus Desau (1999) Materialtechnologische Untersuchungen (three drawings A3) Brambach & Ebert/Pfister Schiess Tropeano, Architects. Halle & Zurich. May (revised October)

fig 10



NOTES

1 *Related to fig. 2. Karin* Wilhelm, *"Seeing - Walking - Thinking: The Bauhaus building design"*, Bauhaus Dessau Foundation & Kentgens-Craig, Margret ed., 1998.
2 Wessel de Jonge; Ola Wedebrunn (editors), *"Reframing the Moderns: Substitute Windows and Glass"*, Papers of the 1998 Copenhagen Seminar DOCOMOMO International Secretariat, Delft, TUD, 2000.
3 T Gunny Harboe; Stephen J Kelly, *Restoration of a nineteenth Century curtain wall: The Reliance Building of Chicago,* USA, 1895, pp. 63-4
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5 Margret Kentgens-Craig (editors), *Introduction in Bauhaus Dessau Foundation & Kentgens-Craig*, 1998, p 7.
6 Berthold Burkhardt, *"The Conservation of Modern Monuments: Renovating the Bauhaus building"*, The Dessau Bauhaus Building 1926-1999 , Birkhauser Dessau Foundation, Basel, 1998, p. 189.
7 The visit to the Bauhaus, the results of which are the basis for this article, was made on September 9-11, 2002.
8 Monika Markgraf, Personal communication 2002 (with permission).
9 James Lewis, *"How does the bolt get into the concrete? Fixing in the frame; from Bauhaus to Bangladesh"*, DOCOMOMO Journal 23, DOCOMOMO International Secretariat, University of Delft. August 2000, pp. 43-50.
10 Prof. Rolf Kuhn, Personal correspondence, 14 August 1995.
11 Walter Gropius, Photographs taken during construction of the Bauhaus, Bauhaus Archive, c. 1926.
1.Werkstätten mit Blick entlang der Glasfassade. Im Hintergrund Ise Gropius mit Hund stehend (Workshop view of the curtain wall. In the middleground is Ise Gropius with standing dog) B 44 N. Bauhaus-Gebäude Dessau c1926 *(Note: of all the photographs of construction in progress, this one is special in its inclusion of Gropius' wife, Ise, with their dog)*
12 *Crittall Manufacturing Company Limited* (1926), Fixing Details, Braintree.
13 Hermann Rupprecht Durr, *Das Stahlfenster in der Bauwirtschaft: Eine Betrachtung seiner Entwicklung, Ausfuhrungsarten und Eigenschaften.* Verlag von Wilhelm Ernst & Sohn. Berlin, 1940.
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16 Ola Wedebrunn (editor), *"Introduction to Reframing the Moderns: Substitute Windows and Glass"* (pp 9-11) in Reframing the Moderns: Substitute Windows and Glass, 2000 (Wessel de Jonge, Ola Wedebrunn (Eds) (see footnote no 1).

17 Walter Curt Behrendt, Modern Building: Its Nature, Problems, and Forms, Martin Hopkinson. London, c.1936, p. 156.

18 Berthold Burkhardt, *"Modern buildings and their windows: Some restoration experiences in Germany"*, Reframing the Moderns: Substitute Windows and Glass (Wessel de Jonge; Ola Wedebrunn (editors)), 2000, pp. 66-75. *(see footnote n° 1)*

19 "The Municipal Council of Dessau approved the invitation and contract for the Bauhaus on March 24, 1925. Former students (at the Weimar Bauhaus) Marcel Breuer, Farkas Molnar, and Joost Schmidt were engaged for design work ..... Working day and night, Gropius designed the school building and directed the completion of working drawings by mid-summer 1925. Contracts were let but, delayed by a building trades strike, construction did not start until September. In April 1926 the roof "topping-out" ceremony took place. Within a year of the start of construction, the first classrooms and workshops were already in use ..... (at the same time) Ise's health, the construction of the Bauhaus building and the masters' houses, and the preparations for a new school year were only part of Gropius's concerns. The responsibility for achieving profitable contracts for the Bauhaus as well as his private office also fell to him."20 (pp. 119, 120 & 124).

20 Reginald Isaacs, Gropius: *An illustrated biography of the creator of the Bauhaus Bullfinch*, English Edition, 1991.

21 Gropius used at least two contractors for the Bauhaus; they included Bauhütte Anhalt GmbH, Dessau, and Anhalter Betonbau Gesellschaft mbH, Dessau-Ziebigk (the latter were also contracted for the Dessau Torten Estate). [8]

22 Materialtechnologische Untersuchungen: Denkmalpflegerische Zielstellung fur die Sanierung des Bauhausgebaudes in Dessau, Arge Bauhaus: Brambach und Ebert Arkitekten, Halle; Pfister Schiess Tropeano & Partner Arkitekten, Zurich (1999 May revised October three drawings A3)

23 The drawings made by the author are "best guesses" based upon measurements and photographs taken on site of visible and accessible components. Some details, and the relationship between them, therefore remain subject to further evidence.

24 Bauhausgebaude Dessau (2001) Detail Bruck.dwg. 05.10.01

25 Walter Gropius, *Photographs taken during construction of the Bauhaus*, Bauhaus Archive, 2. Fachschultrakt von Norden, c. 1926.

26 Dennis Sharp, Bauhaus, Dessau - Walter Gropius, Phaidon, London, 1993.

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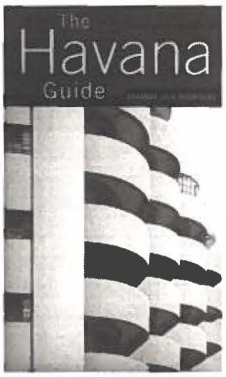
My thanks are also due to David Whitham of the DOCOMOMO Scottish National Groupfor copies of Crittall window fixing details of 1926.

All photographs are by James Lewis unless stated otherwise

fig. 11

fig. 12

MODERN ARCHITECTURE IN HAVANA: A GUIDE FOR ITS KNOWLEDGE AND PROTECTION



The recent publication of *The Havana Guide. Modern Architecture, 1925-1965*, by architect, critic and historian Eduardo Luis Rodríguez is an extraordinary event for Cuban architecture and its historiography, and a public international recognition of the importance and values of the modern architectural heritage of the city, mostly known, until now, fo its colonial masterpieces. This is, precisely, the main goal of the book: to rescue from obliteration and neglect the names and works that shaped a significant part of the built environment of the city from the end of the1920s to the 1950s, a period of great conceptual and formal richness whose virtues were kept partially hidden mainly due to socio-political reasons. Since many modern works are currently facing the danger of insensitive transformations mainly because of the generalized lack of awareness of their patrimonial values, this book also intends to be a call for attention, a protective shield of knowledge against the spears of ignorance.

The book, with an appropriate and attractive graphic design, contains an extensive essay and plenty of photographs revealing the origins, the development and the apogee of the Cuban modern movement architecture. In this section, little-known projects for Cuba by some international masters of modern architecture, such as Philip Johnson, Mies van der Rohe, Jósep Lluís Sert and Franco Albini are included and analysed. The graphic material that illustrates this essay, as well as the entire book, is of great quality and most of it appears here for the first time.

fig.2 **Mario Romanach**: *House Noval Cueto*, La Habana, 1949. Main façade.

The main body of the publication consists of a selection of 196 works located in 26 territories.
There are buildings in almost every architectural program, but the residential examples are remarkable for their quantity and quality.
According to the author, this was the theme where experimentation and formal and conceptual improvements were achieved.
Each entry in the book occupies at least one page, sometimes two, when it is a work of extraordinary relevance. All the information about works, their name, author(s), dates of construction, addresses and currents use are given, together with a description which highlights briefly their history, characteristics and importance. For every example there is at least one photograph, in many cases, two, and occasionally, three. Many of these pictures - part of the fabulous collection gathered by the author in more than twenty years of research- were taken right after the completion of the building, which allows the visitor to compare the original and current conditions, a very important part of the narration presented here. Without any doubt, one the greatest achievement of the book is to include floor plans of the buildings - sometimes, also sections and perspectives appear- to complement the external images by understanding of the internal layout and functioning. It is important to point out that, according to Rodríguez, this book contains just a selection of what was significant in the period, and by no means, should it be understood as a complete catalogue of Modern Movement works in Havana, a city of such great architectural wealth.
The veracity of the information offered is based in the long - and sometimes painful - research carried out by the author since 1980, in the National Archives of Cuba and in many other personal archives, in addition to many interviews of the still-alive protagonists of the movement, many of them now residing outside Cuba. All this, together with frequent and extensive visits around the city, and consultation of the very scarce bibliography on the subject, provided Rodríguez with very ample documentation. It was, therefore, a difficult task to decide which examples would finally appear in the book, and which ones would be left out.
Some architects stand out by the quality and quantity of their works. The first is Mario Romanach - with 21 buildings, including the extraordinary houses Noval Cueto *(fig. 2)* and Vidana, highly praised at their times by Walter Gropius and Richard Neutra. Rodríguez is currently working, together with architectural historian and publisher Nancy Levinson, on a monograph of the work of this architect, who was instrumental in the excellence achieved by Cuban architecture in the field of integrating modernity and tradition, the universal language and formal *répertoire* of modern architecture, with the elements of local identity, a kind of modern regionalism that Rodríguez regards as the most important trend of the 1950s. Other important names are Eugenio Batista, equally relevant in his attempt to rescue local traditional solutions;
Frank Martínez, with a particular sensibility and a personal vocabulary that produced some excellent examples of tropical rationalism; Manuel Gutiérrez, whose buildings show a perfect equilibrium in the asymmetrical layout of the floor plans, and an always appealing structural solution evident in the main facades; Max Borges (Jr.), author of the Tropicana Night Club, a masterpiece included by Henry Russell Hitchkock in the exhibition *Latin American*

Architecture since 1945, held at the Museum of Modern Art, New York, in 1955; and Nicolás Quintana (Jr.) whose houses, articulated around a series of interior courtyards, often contain modern interpretations of traditional elements such as stained glass windows and jealousies or lattice works.

With this volume, which ends with a selected bibliography and a complete summary of the architects, works and themes discussed, Eduardo Luis Rodríguez continues his efforts to spread the knowledge of the patrimonial values of 20th century Cuban architecture, a subject to which he devoted entirely one of his former publications, *La Habana. Arquitectura del siglo XX* (Blume Publishing House, Barcelona, 1998), which received the best book award book in the Pan-American Architectural Biennial of Quito, Ecuador, 2000. The work of Rodríguez is characterized by the inquiry into forgotten or relegated aspects of Cuban architecture, an approach also recognized by the prize awarded to him at the Venice Architectural Biennial, 2000, for his work as Editor in Chief of the journal *Arquitectura Cuba*.

A practicing architect, Rodríguez is also Vice-President, in charge of the Register of the recently created DOCOMOMO Cuban Working Party. *The Havana Guide. Modern Architecture, 1925-1965* is a pioneer book in its attempt to reveal and characterize an important but until now, almost hidden moment in Cuban artistic development, a monumental rescue effort, a work of erudition but at the same time, of very pleasant reading, a successful endeavor which justifies why Cuba was, during the 1950s, at the top of the continent's architectural production, together with Mexico, Brazil and Venezuela. Let us hope that soon, a Spanish version of this guide will allow the diffusion of its contents inside Cuba, where it is most needed. This will be, doubtlessly, an important step in the long road leading to the recovery of the concept of architecture as an integral part of the artistic culture of the country, one of the most important goals of the local DOCOMOMO Working Party.

ROBERTO REAL, *the author of this review, is a Cuban freelance journalist, specialized in art critic, currently based in Costa Rica.*

Eduardo Luis Rodríguez:
The Havana Guide. Modern Architecture, 1925-1965
Princeton Architectural Press, New York (www.papress.com). 14 x 23 cms., 320 pp., 14 color and 301 black and white photographs, 154 drawings and 26 maps, text in English. $ 24.95

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Paul Adamson, AIA, holds a Master of Architecture degree from Columbia University and has practiced in New York and San Francisco. Marty Arbunich is director-publisher of the Eichler Network, a Bay Area-based company devoted exclusively to supporting and preserving California's 11,000 Eichler homes. Ernie Braun has worked as a professional photographer for over six decades.

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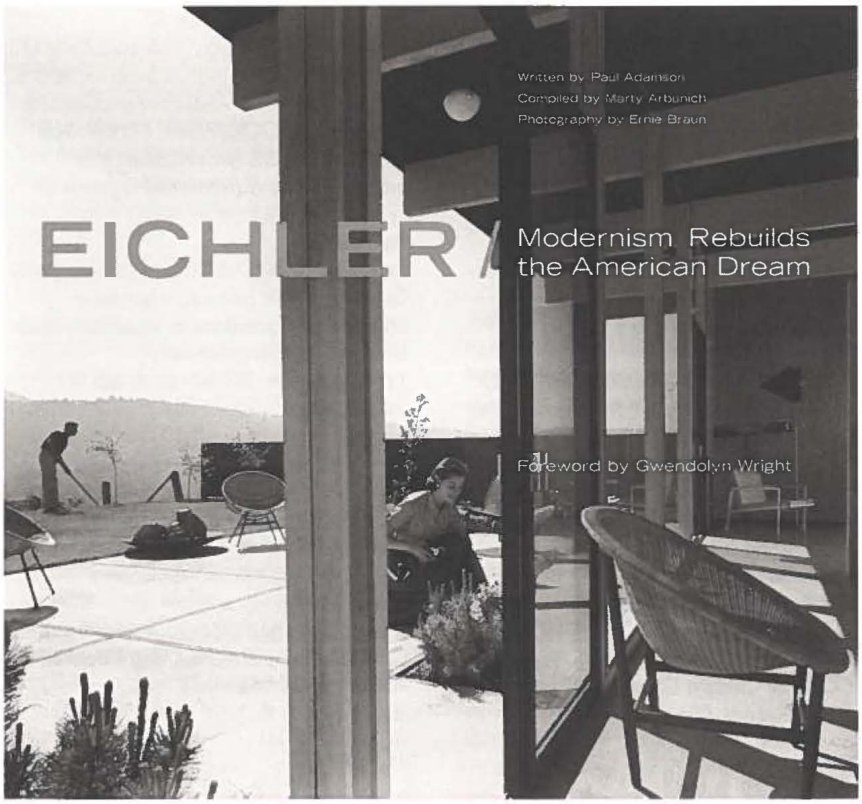

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DOCOMOMO International is a non-profit organization dedicated to the **DO**cumentation and **CO**nservation of buildings, sites and neighbourhoods of the **MO**dern **MO**vement.
It aims to:
- Bring the significance of the architecture of the Modern Movement to the attention of the public, the authorities, the professionals and the educational community.
- Identify and promote the surveying of the works of the Modern Movement.
- Foster and disseminate the development of appropriate techniques and methods of conservation.
- Oppose destruction and disfigurement of significant works.
- Attract funding for documentation and conservation.
- Explore and develop the knowledge of the Modern Movement.

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

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

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

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