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documentation and conservation
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modern movement

Journal 23

The Modern City Facing the Future



August 2000

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The Modern City Facing the Future



On the cover: The Esplanade of Ministries, in Brasília.
Top: A set of superblocks of the South Wing.
Photo's by Frederico de Holanda.

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Printing

Tripiti, Rotterdam

ISSN

1380 - 3204

The DOCOMOMO Journals are published twice a year by the DOCOMOMO International Secretariat.

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Editorial

Sixth Conference: The Modern City Facing the Future

The architects of the Modern Movement prepared spatial propositions for the form of the modern city, paying particular attention to dwelling conditions and theoretical models for 'green' cities. The concept of the modern city involved social housing prototypes, rationalized transport and service systems, and zoning of urban activities that were regarded incompatible - principles which were codified in the Athens Charter (CIAM IV, 1933). In the spirit of such precepts new cities were built between the wars in Siberia and at Canberra, Australia, and after World War II in the Punjab at Chandigarh and at Brasília, Brazil.

In retrospect, it is apparent that the seminal principles of Modern Movement urbanism have been compromised. Though this must be partly attributed to economic pressures and technical exigencies, modern planning also seemed unable to respond to the enhanced aspirations of the public relating to the tradition and history of the human habitat.

This September we will celebrate the 40th Anniversary of Brasília with our Sixth International Conference: 'The Modern City Facing the Future'. This edition of the Journal is dedicated to the conference theme, involving a critical reassessment of modern planning principles and practice. A special '*Brasília dossier*', prepared and co-edited by Marco Aurelio Gomes, features papers by Frederico de Holanda, Sylvia Ficher and Vicente del Rio and Haroldo Gallo.

Two essays, by Oriol Bohigas and Paul Meurs, provide a broader perspective. Both the challenges and the dangers of globalization, commercialization and individualization in the 21st Century are enormous. In our search for sustainable solutions, respecting human dignity, local characteristics and cultural values, the ideals of the Modern Movement can be of great use. Exploring both the positive and the negative effects of its results in the past are instrumental in designing our own future.

Wessel de Jonge, editor

Contributing to the Journal

Journal 24 is scheduled for November 2000 and will be a special edition dedicated to 'Colour in Modern Movement architecture'. Authors who consider to contribute to this edition with a thematic article or a report on a related issue in their country are kindly invited to contact the editors on short notice.

Contributors to Journal 24 are kindly requested to observe the following:

- Main articles, with a maximum length of 2500 words, are only accepted on diskette, or by e-mail at docomomo@bk.tudelft.nl.
- News items must be short and informative, and preferably submitted on diskette or by e-mail as well.
- All texts must be in English; if translated, the same text in the original language must be enclosed as well.
- A short resume of the author(s), in connection to the contribution, must always be included.
- Articles must be in by 1 October, 2000; news items before 15 October, preferably submitted by e-mail or diskette.
- Illustrations for articles must be in by 1 October, 2000; for news items 15 October, 2000.
- Illustrations are preferably high-contrast black & white

photographs, submitted as prints, scanned on diskette (jpg or tif-file, 300dpi) or send by e-mail; photocopies are not accepted; black & white line drawings (plans, details) will be appreciated. Please notify the International Secretariat before sending illustrations.

- All illustrations must be cleared of copyrights; photographer and/or owner must be credited.

The editors look forward to receive your contribution to Journal 24.

Next Journals

The DOCOMOMO Journals are published twice a year by the DOCOMOMO International Secretariat. Journal 25 is scheduled for June 2001. Future thematic editions are considered on MoMo in Asia, Adaptive Re-use, MoMo Engineering, Theory and Criticism, and MoMo around the Mediterranean. Authors are herewith invited.

Professor Christian Norberg-Schulz

In memoriam

Thorvald Christian Norberg-Schulz, architect, historian and theorist: born Oslo 23 May 1926; Married 1955 Anna-Maria de Dominicis (one son); died Oslo 28 March 2000.

The Norwegian architect, theorist and historian Christian Norberg-Schulz was a direct link with the pioneers of Modern architecture.

Born in Oslo in May 1926 of academic parents, Norberg-Schulz graduated as an architect from the ETH- *Eidgenössisches Technische Hochschule* in Zurich in 1948. There he came under the profound influence of the great Swiss art historian Sigfried Giedion, the spokesperson for international modern architecture and a close confidant of Le Corbusier. Norbert-Schulz moved on to the Harvard Graduate School to study under Walter Gropius in 1952. In the United States he studied for a time too with Mies van der Rohe at the IIT (Illinois Institute of Technology) in Chicago. As an architect he worked briefly as a partner of the Norwegian modern architect Arne Korsma on whom he wrote a number of informative articles. From 1956 to 1963 he was in Rome continuing his art-history studies (he was to become one of the leading scholars of Italian Baroque architecture) and working with the engineer Pier Luigi Nervi. He married an Italian, Anna-Maria de Dominicis, in 1955.

After this lengthy period of intensive study and travelling he returned to Norway, where he was to remain for the rest of his life, although this was punctuated by regular visits to Italy and overseas lecture tours and visiting professorships. In Oslo he edited the national architectural journal *Byggekunst* from 1963 to 1978 and began a long and distinguished teaching career as professor of architecture and Dean at the Oslo School of Architecture.

Norberg-Schulz claimed that his own extensive knowledge of the European Modern Movement in architecture came directly from Giedion, who was known to claim: *'Ich bin ein schüler Heinrich Wölfflin'*.

His background, rooted in Swiss art history and aesthetics, led Norberg-Schulz into a lifetime's interest in architectural perception, its origins, psychology and history. He recalled, in a special speech given to the Oslo Association of Architects on the occasion of his 70th birthday in May 1996, that he asked Giedion what books he should read to gain a better understanding of modern architecture. Surprisingly Giedion did not reply *Vers une architecture*, Le Corbusier's propagandist tome, but chose Paul Frankl's 1914 book *Die Entwicklungsphasen der neueren Baukunst*, an introduction to the organisation of space and built form.

It was this area of theory that was examined in Norberg-Schulz's 1963 book *Intentions in Architecture*. It was reissued in a popular edition three years later by the press of the Massachusetts Institute of Technology, where Norberg-Schulz was to take up a visiting professorship in 1974. *Intentions in Architecture* for my generation became a cult text in its search for 'meaning' in architecture. It brought Norberg-Schulz international recognition and awards and academic and institutional honours including an Honorary Fellowship of the Royal Institute of British Architects and the Gold Medal of the Académie d'Architecture.

His interest in modern humanistic architecture had led him in the early 1960s to begin this important work. Initially he has said he perceived it as necessary in order to re-interpret architectural 'intentions' for architects - 'a need for a clarification of the aims and objectives of the profession' were his exact words. His book placed emphasis on visual perception, on *Gestalt* forms and the integration of architectural theory, a view which he was later largely to repudiate.

He had been introduced to gestalt psychology in classes he had attended at Harvard taught by his teachers Morris, Parsons and Frank. However these classes, he claimed, were based on scientific methods, which he felt left out the creativity he himself wished to advance. In a later book *Genius Loci* (1979), he discussed the problem of 'place' in general terms, using the cities of Khartoum, Rome and Prague in order to illustrate his method of phenomenological analysis. His last major urban design study, *The Art of Place* (1996), expanded further on this theme.

Known to his colleagues and friends as a patient, thoughtful, kind and helpful critic, Norberg-Schulz did not flinch from expressing his distaste for dull, inept, or theoretically bereft architecture. He had a particular interest in Nordic architecture and wrote a short book, *Modern Norwegian Architecture* (1986), as well as numerous articles on local vernacular traditions emphasising the virtues of tradition, local construction methods, the use of appropriate materials and spatial organisation.

A brief flirtation with post-modernism in the 1980s - when he felt it was 'vital and promising' and potentially possessed more historical credibility than it really had - was as much to do with encouraging the designs of his young students than any disillusionment over modernism itself. More recently he said that post-modernism 'dissolved into superficial playfulness', remarking too that modernism 'is the only valid current of the 20th Century'.

During the past few years, Norberg-Schulz had moved back again to a deep and serious study of the fundamental principles and ideas behind the major projects of modern architecture and their theoretical underpinnings. The result of this work led to Norberg-Schulz's latest publication, *Principles of Modern Architecture*, which was published in Britain just a few days before he died. This book, which incidentally has been designed by his son, Christian, provides a suitable epitaph for a distinguished architectural theorist who during a rewarding career achieved his desire to make the art and history of modern architecture understood universally.

Dennis Sharp

The Modern City Faces the Future

Sixth International DOCOMOMO Conference Brasília, Brazil, September 19-22, 2000

The Brazilian DOCOMOMO Working Party, the Graduate Program in Architecture and Urbanism of the Federal University of Bahia and the Graduate Program in Architecture and Urbanism of the University of Brasília are pleased to present the Sixth International DOCOMOMO Conference to be held in Brasília on September 19 - 22, 2000. The theme of the Conference is 'The Modern City Facing the Future'.

A Pre Conference Tour on Tuesday, September 19 and a Post Conference Tour on Saturday, September 23 will be offered in Brasília and Additional Post Conference Tours will be offered in Belo Horizonte, Ouro Preto, Rio de Janeiro, Salvador and São Paulo.

DOCOMOMO Brazil The working party, which has been active since 1992, was established with the support of the Graduate Program on Architecture and Urbanism of the Federal University of Bahia. The group has worked towards organising a Brazilian network on modern architecture and urbanism, encouraging a wide debate concerning its ideals, documentation and conservation. Three national conferences (Salvador 1995, 1997 and São Paulo, 1999) have been organised with the participation of the most preeminent Brazilian researchers. Books were published with contributions from the Conference. Regional groups are active in the States of São Paulo, Rio de Janeiro, Bahia, Minas Gerais, Pernambuco, Rio Grande do Sul and Pará.

A national list of significant buildings and 'ensembles' has been prepared, as well as regional register publications. The Brazilian DOCOMOMO Bulletin is published biannually.

The Graduate Program on Architecture and Urbanism of the Federal University of Bahia / UFBA is the academic institution responsible for the Conference organisation. It was created in 1983 and is regarded as one of the best graduate programmes in Brazil on architectural and urban history, urban planning and architectural conservation technology and theory. It synchronises the DOCOMOMO activities in Brazil including integrating Brazilian researchers into the international network, as well as co-ordinating the activities of the International Specialist Committee on Urbanism.

The Graduate Program on Architecture and Urbanism of the University of Brasília / UnB is the supporting institution responsible for the local organisation of the event. It was created in 1976 and has a long experience in the fields of urban planning and urban design, technology, and theoretical and historical studies.

The Modern City Facing the Future

The modern city is presenting new challenges, which call into question certain urban principles therefore requiring their reevaluation and potential for the future.

The unity or dissonance between architectural and urban form is a fertile topic for discussion. To debate the city is also to debate the buildings that compose it. In this sense, Modern Movement urbanism is historically unique in so far as it perceives the city as a designed unity or a summation of single buildings, according to a design mode that has already been described as an architectural urbanism. The purism of universal solutions needs to be questioned given the diversified reality of sites and places. This leads to the examination of how the implied universalism of modern urbanism tolerates other urban models such as low density garden cities.

The chasm between projected cities and reality, as well as the 'tensions' between urban form and political meaning. Social and economic issues were of paramount relevance to the Modern Movement and there is special relevance in exploring the relationship between them and political control. In the case of Brasília, a period characterised by a highly democratic discourse sustaining its early existence, was followed by a military dictatorship, which imposed political controls over its development for more than twenty years.

As modern architecture and urbanism is reality, issues concerning preservation need to be addressed, with emphasis on the permanence of modern structures. Consideration must be directed to the way these elements survive and how they should be treated to resist deterioration, and their possible destruction, in the years to come and guarantee their integrity. When dealing with cities, it is important to acknowledge complex relationship between the objective of preservation and its object, the dynamic and mutable urban whole. Similarity, the question of its 'original condition' to which preservationist actions are oriented, should be addressed, linking many theoretical and practical topics, among others, authenticity, authorship and collective life. Considering the complexity of the Modern Movement, the debate can be furthered to include other pertinent aspects, such as its relevance or outmode, its imagistic and aesthetic dimension or the contemporary counterpoint between modernism and modernity.

Brasília

Brasília as venue of the 6th International Conference raises questions concerning both general Modern Movement urban propositions and the actual achievements in urbanism and architecture, which followed. It should therefore be the reference for debate, urban studies and designs all over the world at different scales - towns, districts, neighbourhoods, housing complexes, administrative centres, university campuses - and with varying degrees of intervention, taking into account topics ranging from urban statutes (specifically zoning) to aesthetic, technological and economic matters.

The construction of Brasília, which was developed from 1956 onwards, relied upon the essential contribution of two of the most prominent Brazilian architects, Lúcio Costa, author of the city's Master Plan (Pilot Plan), and Oscar Niemeyer, responsible for the design and its public buildings. This ensemble, inaugurated in 1960, is the most important Modern achievement in Brazil and one of the most relevant urban and architectural accomplishments of the 20th Century, recognised as one of the UNESCO's World Heritage cities.

Abstracts

The Organising Committee has received 207 abstract proposals, from which the Scientific Committee has selected 45 for oral presentation, and 40 for exhibition in the format of posters. Besides paper presentations and posters, the conference will feature Oscar Niemeyer offering the Opening Address, as well as keynote speakers and lecturers of high international standard, such as Anthony Vidler, Philippe Panerai, Jagdish Sagar and Fernando Perez Oyarzun. We have also invite João Filgueiras Lima (Lelé), Rem Koolhaas (not confirmed yet), Otília Arantes and Kisho Kurokawa.

Besides, pre- and post- Conference Tours are being offered not only in Brasília, but also in the cities of Belo Horizonte, Ouro Preto, Salvador, São Paulo and Rio de Janeiro. A Final Party will take place at the Hotel Nacional, on Friday evening, as a feasty closure of the Conference.

Conference venue

The Conference will happen in three different venues: the Hotel Nacional, where the pre-conference program will take place. It is one of the first hotels to be built in the city, centrally placed at the South Hotel Sector, an excellent example of Brazilian Modern Architecture of the 1960s, designed by the architect Nauro Esteves. Space for informal social gatherings will be offered near the swimming pool. The Conference Opening and welcome cocktail will be at the Itamaraty Palace, one of the outmost buildings designed by Oscar Niemeyer, and Roberto Burle-Marx (gardens design).

The Conference itself and the Case Study Panel Exhibition will take place at the University of Brasília / UnB Campus, at the 'Instituto Central de Ciências'/ICC (Central Institute of Sciences). The ICC was designed by Oscar Niemeyer in the 1960s. It has two parallel strips of rooms for several purposes, partly straight and partly along a gentle curve, stretching over 750m, with a beautiful garden in between, built in a heavy and pioneering pre-fabricated concrete system. It houses classrooms, auditoriums, snack-bars and restaurants, bookstores, administration quarters etc.

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More information about the final programme and the post-conference tours can be found on the website of the conference: www.ufba.br/~conf2000, or by contacting the DOCOMOMO 6th Conference Office.

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Fundação Maria Luisa e Oscar Americano

In Journal 22 in the article of Hugo Segawa (pp. 34-35) DOCOMOMO-members are invited to visit the Fundação Maria Luisa e Oscar Americano. Members who are interested to visit the Fundação during their stay in Brasília, can contact the following address:

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Technology dossier 3: Windows and Glass

The International DOCOMOMO Seminar 'Reframing the Moderns - Substitute Windows and Glass' took place in Copenhagen on May 20, 1998, attended by about 55 researchers and professionals from 10 countries. Some lectures with a more general scope were already included in Journal 21, a special issue called 'Windows to the Future'.

The results of the seminars organized in cooperation with the International Specialist Committee on Technology are presented as a series of Technology Dossiers. Currently there are two already published: '*Curtain Wall Refurbishment*' and '*The Fair Face of Concrete*'.

The complete results of the Windows seminar, Technology dossier nr. 3, will be published in May 2000, and edited by Wessel de Jonge and Ola Wedebrunn. The publication includes of course the lectures, but is also extended with some extra papers on the subject. The book gives a broad insight in the field of window renovation. In case studies, it presents illustrative examples of the various views and strategies, and the choices and consequences they lead to. To enlarge curiosity, the titles of the articles are listed below.

History and Development:

- 'Windows' by Boje Lundgaard;
- 'Steel framed windows of the 1930s - Metal window industry in Finland' by Marianna Heikinheimo;
- 'Glass as matter - A brief history of manufacturing and application' by Anne Beim;
- 'Window glass technology in the 20th Century - Glass manufacturing in the United States' by T. Gunny Harboe.

Strategies and policies:

- 'Framing Opinions - English campaign to conserve windows' by Chris Wood;
- 'Keep the spirit! - Window replacement in Rotterdam's 1900-1960 districts' by Wessel de Jonge;
- 'An artificial look - PVC replacement windows in Tallinn' by Andri Ksenofontov.

Case studies:

- 'Restoration of a 19th Century curtain wall - The Reliance Building of Chicago, USA' by T. Gunny Harboe and Stephen J. Kelley;
- 'Modern buildings and their windows - Some restoration experiences in Germany' by Berthold Burkhardt and Dieter Rentschler-Weissman;
- 'Restoration of transparency - The Casa del Fascio in Como (Giuseppe Terragni, 1932-36)' by Alberto Artioli and Wessel de Jonge;
- 'Preservation of Steel Framed Windows - The Weiße Stadt Estate in Berlin-Reinickendorf, 1929-30' by Winfried Brenne;
- 'Modification of existing windows - Vestersø Apartment House (Fisker & Møller, 1937-39)' by Søren Lundquist;
- 'The window and the plane - The Central Post Office in The Hague (Bremer 1939-49)' by Dirk Jan Postel;
- 'Retention and replacement: a careful balance -

The Westman House in Lund, Sweden (1939)' by Thomas Tägil;

- 'Euro-legislation calls for changes - Copenhagen's White Meat Town (1932-34)' by Jens Borsholt;
- 'Light and air in a poisonous and noisy world - Sveaplan School in Stockholm (Ahrbom and Zimdahl, 1936)' by Torbjörn Almqvist;
- 'Re-use of a Building where Less is More - Rietveld's School of Art, Arnhem (1958-63)' by Hubert-Jan Henket.

The extensive bibliography will be of guidance in finding more material on window renovation.

The book can be ordered through the International Secretariat at Dfl. 60,- plus forwarding and transfer costs. All members of DOCOMOMO International can order a copy at cost price Dfl. 40,- plus forwarding and transfer costs.

Order form Technology dossier 3

'Reframing the Moderns - Substitute Windows and Glass'

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E1027 in safe hands

More funding needed

After years of campaigning and various efforts to safeguard Eileen Gray's Villa E1027 in France, the house has recently been acquired by the municipality of Roquebrune-Cap-Martin and the *Conservatoire du littoral* regional conservation authorities. DOCOMOMO's first involvement dates to 1991 when we campaigned to prevent that the furniture ensembles from the house would be auctioned.

Although the then owner argued to need the auction revenues for restoration of the house itself, this never happened. DOCOMOMO agreed with Sotheby's to keep track record of the furniture pieces as much as possible and we hope this will now prove to be beneficial to the restoration project.

Since then, DOCOMOMO has relied on silent diplomacy, approaching a variety of officials ranging from the Minister of Culture and *Monuments Historique's* senior level to regional heritage authorities and Cap-Martin's alderman for culture, Jean-Luis Dedieu. Mr. Dedieu recently wrote us that he remains appreciative of DOCOMOMO's interest for the Villa E1027: 'I have to inform you, therefore, that after lengthy and difficult negotiations the *Commune de Roquebrune-Cap-Martin* and the *Conservatoire du littoral* have acquired the house on October 25, 1999, at 3 PM'.

The villa will now be classified as national heritage by *Monuments Historique*, the national heritage department, while the state will take account for half of the planning and restoration cost, the equivalent of about FF 5 million. A young architect, Renaud Bavres, has been engaged to be in charge of the historical assessment of the property and the conservation planning, that will as well involve the establishment of a Cultural Research Centre on the premises, including Le Corbusier's celebrated Cabanon and campsite, and Rebutato's *guinguette* 'L'Etoile de Mer'.

To this end, the 'Association de sauvegarde du site Eileen Gray et Le Corbusier à Roquebrune-Cap-Martin' has been established. The association also considers the -post mortem- construction of a holiday resort that has already been planned by Le Corbusier for an adjacent site. The future Research Center will welcome students and architects who wish to work and stay at this exceptional place.

In order to arrange funding for this ambitious programme, the association has to find sponsors and other generous supporters. DOCOMOMO members and working parties are herewith invited to participate actively in the safeguarding and conservation of Villa E 1027, either by sponsoring the association or by suggesting potential sponsors and funds for further support. The association suggests that you will enjoy the satisfaction to have participated in the safeguarding of an emblem of modernity in architecture of the 20th Century. -WdJ.

For more information: 'Association de sauvegarde du site Eileen Gray et Le Corbusier à Roquebrune-Cap-Martin', Jean-Louis Dedieu, ph. +33-4-92104848, jean-louis.dedieu@wanadoo.fr

Mallet-Stevens reprint

Support Villa Cavrois

A general meeting of the 'Association de Sauvegarde de la Villa Cavrois' took place on March 31 this year, to present its 1999 annual report. As the future of the house remains uncertain, the association decided to continue its activities.

The Villa Cavrois is one of the most significant works of Mallet-Stevens, located in Croix, France. Since its foundation four years ago, the association has been very active to raise public awareness of the cultural value of the house. To this end a successful press campaign has been launched that has resulted in a lot of publicity internationally.

Finding a sustainable future for the house however remained a problem. In order not to disrupt ongoing 'negotiations' with potential new owners, the association initially decided to remain in the background, until September last year when it appeared that no results were to be expected at all. The campaign was then redirected towards those politically responsible, the results of which are still uncertain. The acquisition of the Villa Poiret at Mézy, the activities and exhibitions regarding the Villa Noailles at Hyères -the UAM

exhibition attracting 12.000 visitors- and DOCOMOMO's involvement in the French *national heritage day* concerning those two buildings have fuelled the topicality of 20th Century heritage. Now, the association hopes that the 'trilogy' of these remarkable Mallet-Stevens' houses can one day be completed with the restoration of the house in Croix.

An internet-site has been set up, which has been revised and updated early this year. An archive for drawings and documents relating to the house has been established in anticipation of a future restoration. Furthermore, the association has been successful to initiate and support the republication of Mallet-Stevens' seminal writing 'Une Demeure 1934', with a preface by the foundation's president Richard Klein. (ISBN 2-85893-545-9, FF 50, - 62 pages with 53 illustrations, éditions Jean-Michel Place, www.jmplace.com)

The publication is expected to further promote the aims of the association and represents a symbolic as well as a realistic endorsement. Symbolic, since the book itself is a brilliant symbol of fighting adversity, and realistic because it responds to a large professional interest. The association hopes that the reprint will be a great success that will advance a future restoration of this outstanding house -WdJ.

More information from: 'Association de Sauvegarde de la Villa Cavrois', 68 rue Jules Guesde, F-59170 Croix, France, e: asvc@nordnet.fr, <http://www.nordnet.fr/mallet-stevens>

Duval factories

Swiss campaign

Since a number of years, Swiss architects, supported by the national DOCOMOMO chapter, are making efforts to prevent the disruption of the urban setting of Le Corbusier's Duval factory buildings at St. Dié, France.

Probably one of his less well-known buildings internationally, Corb designed *l'Usine Duval* for a central square at St. Dié, the office wing facing one of the most important public domains of the town. Since three

years new developments have been proposed for the area, including the construction of a similar volume right in front, between the Duval offices and the square. Moreover, the newly proposed building has been designed in a kind of *corbuesque* style, that would banalize the careful design and detailing of the original structure.

The Swiss Federation of Architects has launched a campaign to safeguard the urban setting of the Duval factories and sent a letter of concern, signed by 134 Swiss architects, to the director of the Duval company last year. We will keep you posted. -WdJ.

More information from: Swiss Federation of Architects, Pfluggässlein 3, CH-4001, Basel; ph (61) 262 1010, fax (61) 262 1009.

Actions for modern houses of world-wide value

Villa Tugendhat Brno (Czech Republic)

Following a specialists session of last February, another experts meeting was held in Mies' famous Villa Tugendhat at Brno (1929-30) in order to discuss both its application for inscription on the World Heritage List and the current needs of repair and re-use. Initiator of this session was Dr. Pavel Licka, president of the most recent Vila Tugendhat Foundation and director of the Brno house of Arts. He brought a small group of experts (among whom Jan Sapák, Iveta Cerná, Wolf Tegethoff, Ruggero Tropeano) together who discussed the documents prepared by the Czech Department for Conservation, which will be submitted mid-June to Paris, as the first nomination for a modern monument from Central Europe and also the first nominated work from Mies van der Rohes oeuvre, one of the four major architectural oeuvres recommended by DOCOMOMO in its advisory report to ICOMOS (see *Journal 18*) as being of world-wide significance. Because most attendants were unfamiliar with this report, a copy was handed over during this meeting, in the presumption that the Czech authorities can use more international and professional support for the newest WHL nomination (already 8 Czech sites are inscribed, all of pre-industrial periods). In Brno Villa Tugendhat is the only nationally protected monument of the 20th century; the other three are precisely the historic landmarks on which the villa is oriented with its views: the Spillberg castle, Peter's and Jacob's churches.

In spite of its protected status, some difficulties need to be solved for a solid future. Especially the deteriorated terrace staircase needs urgent repair, while architectural restoration and replacement of the original furniture is desirable in the near future for a better understanding of Mies' exquisite creation. Also, new uses are under discussion which can aid the house to stay a living place of modern architecture, besides a 'museum-house'. Therefore, the foundation is looking for more friends who will support both by expertise and financially the necessary repairs and future restorations. In this foundation are besides local experts also members of the Tugendhat family represented and it just has started a fundraising campaign.

For more information you may contact: Dr. Pavel Licka, Brno House of Arts, Malinovského nám. 2, CZ - 60200 Brno, Czech Republic, Phone: +420-5-4221 3883/1808, Fax: +420-5-4221 1662, Email: liska@dumb.cz

Anyhow, it is worthwhile to pay a visit to Brno, where a great variety of architectural masterpieces can be found. On the top floor of the Spillberg castle a permanent exhibition gives an interesting and attractive overview of the vast collection of architectural drawings, photo's, brochures, magazines and furniture of the flourishing interwar period of Czech functionalism. It is nice to see Villa Tugendhat in its physical and historical context.

Rietveld-Schröder House Utrecht (the Netherlands)

Since 1999 the Dutch nomination for the restored Rietveld-Schröder House is in procedure for inscription on the World Heritage List, as the first application from the Netherlands with regard to the Modern Movement legacy.

It might be encouraging for DOCOMOMO that the justification of this nomination refers explicitly to the ISC/Registers advisory report to ICOMOS, especially in its comparative analysis (where also Villa Tugendhat is mentioned). Last January the house has been inspected and at the moment all reports are being judged for the tests of authenticity and world-wide value. While the selection of 20th century sites is already a difficult task, the assignment policy of UNESCO becomes even more complicated due to the upcoming geo-political discussion which refers to the underscore of sites outside the Western culture and demands a broader spread representation. By the very end of 2000 a response from UNESCO can be expected. We'll keep you informed.

Report by Marieke Kuipers, Secretary ISC/R

Yugoslav architects at Bauhaus

by Dr. Aleksandar Kadijevic

Besides attempts of national styles searching, Yugoslav architecture between the two world wars possessed clear integrative consciousness and permeation with European styles of that period (eclecticism, modernism, Art Deco).¹ Architecture in the Kingdom of Yugoslavia was more or less determined by the centres of Prague, Vienna, Paris and Berlin. Bauhaus in Weimar and Dessau remained somehow out of sight. Due to the fact that Bauhaus was only a school and with its experimental character and holders of that programme, Bauhaus did not guarantee the certainty and soundness, of the high-school and academies of Prague, Vienna, Berlin, Munich and Paris, which could offer all that through their tradition. Thence architecture of Bauhaus school accomplished indirect influence to Yugoslav architecture. Its elements predominantly caught sight of in Sarajevo's and Zagreb's reception of modern architecture, more than in Belgrade and Ljubljana.² Just two Yugoslav architects studied in Bauhaus: Selman Selmanagic and Gustav Bohutinski.

Selman Selmanagic is the only Yugoslav student who graduated at Bauhaus. He was born in Sreberenica (Bosnia and Herzegovina) in 1905. As cabinet-maker, he was apprenticed in Sarajevo and Ljubljana, from 1919 to 1925. After his service in the Yugoslav army, Selmanagic went to Germany, and he arrived to Dessau via Berlin. To be able to study at Bauhaus, neither a preliminary school nor an academic title was needed. Formalities by the enrolment were simple, and the assent for the enrolment was given on the basis of previous works and the work on the entrance examination. He passed the first year with material difficulties, but after these initial problems he joined the dynamic atmosphere of Bauhaus completely and he became a member of the German Communist party. In the winter term 1929-1930 Selmanagic was enrolled in Bauhaus.

Selmanagic graduated in 1932 at Bauhaus holders Mies van der Rohe and Ludwig Hilberseimer (a degree no.100 from 5th of July 1932).³ When the Bauhaus was closed in the year of 1933, he left Germany. He spent six years in Greece, Bulgaria, Turkey, Syria, Palestine, Jordan, Egypt and Italy. He designed in Jerusalem a few buildings from 1934 to 1938. In 1939 Selmanagic returned to Germany, where he was busy as an architect for film scenery during the Second World War. He had built cinemas for UFA Company (1939-1942). After the war he stayed in Berlin to live in German Democratic Republic. From 1945 he worked as an architect in city administration of Berlin. He was the co-author of the General Urban plan of Berlin, author of High-party school Karl Marx in Berlin (Berlin-Kleinmachnow), administrative school in Forst (Forst-Zinna), Walter Ulbricht stadium in Berlin, fair building in Leipzig et cetera. From 1950 he was a respectable pedagogue at Berlin Weissensee (University school for Applied and Visual Art) until his death in May

1986. He was an important consultant during the reconstruction of the Bauhaus building in Dessau by Walter Gropius.

Gustav Bohutinski was a temporary Yugoslav student at Bauhaus from 1930⁴. He was born in Krizevci (Croatia) in 1906. He became a student of architecture at the Academy of Visual Arts in Zagreb in 1926-1927. Bohutinski arrived in Dessau via Prague. He spent a short time at the Bauhaus, and returned to Zagreb's Academy, more precisely, at the Architecture department, which was led by the architect Drago Ibler. After the Second world war, he domiciled in USA.

Notes:

1. About Yugoslav architecture between the two world wars see: Arhitektura XX vijeka. Umjetnost na tlu Jugoslavije, Beograd-Zagreb-Mostar 1986.
2. See: T.Premierl, Hrvatska moderna arhitektura između dva svjetska rata, Zagreb 1990; S.Bernik, Slovene Architecture from Secession to Expressionism and Functionalism, DAPA Fall, Miami 1990, 43-53; P.Milosevic, Arhitektura u Kraljevini Jugoslaviji. Sarajevo 1918-1941, Srbinja 1997.
3. In more detail about S.Selmanagic, see: Z.Domljan, Selmanagic Selman. Enciklopedija likovnih umjetnosti 4, Zagreb 1966, 193; H.M.Wingler, The Bauhaus, Cambridge, Mass. 1969, 615-626; Catalogue Selman Selmanagic. Kunsthochschule, Berlin 1984; Der Architekt Selman Selmanagic: Wie komme ich dazu, das telefon Festzuhalten, Sonntag 16, Berlin 21.4.1985, 7; Z.Koscevic, Jugoslovenski studenti Bauhauasa, Zivot umjetnosti 39-40, Zagreb 1985, 83, 85; F.Whitford, Bauhaus, London 1986, 210; Z.Koscevic, Jugoslaveni na Bauhausu, Arhitektura 200-203, Zagreb 1987, 62-64.
4. H.M.Wingler, op.cit, 615-626; Z.Koscevic, Jugoslaveni na Bauhausu...62,64.

New Books

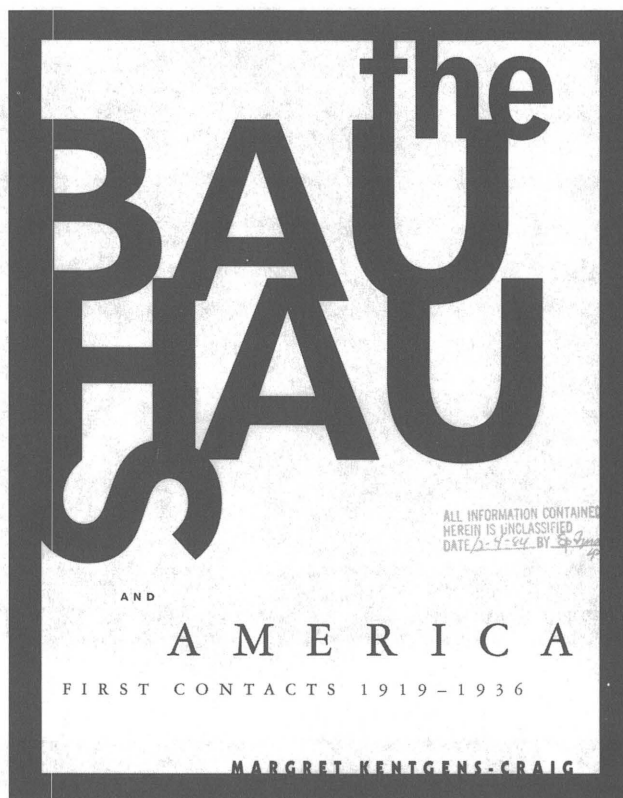
The Bauhaus and America

First contact, 199-1936

The Bauhaus and America, First contact, 1919-1936 by Margret Kentgens-Craig, The MIT Press, February 2000, cloth 7 x 9, 283 pages, 51 illustrations, paperback ISBN 0-262-11237-X, £24.95.

The Bauhaus was founded in Weimar in 1919 by the German architect Walter Gropius. Later the school moved to Dessau in 1925 and to Berlin in 1932, and was dissolved in 1933 by Ludwig Mies van der Rohe under political duress. Although it existed for a mere fourteen years and boasted fewer than 1,300 students, its influence is felt throughout the world in numerous buildings, artworks, objects, concepts, and curricula.

After the Bauhaus's closing in 1933, many of its protagonists moved to the United States, where their acceptance had to be cultivated. The key to understanding the American reception of the Bauhaus is to be found not in the émigré success stories or the famous 1938 Bauhaus exhibition at the Museum of Modern Art, but in the course of America's early contact with the Bauhaus. In this book Margret Kentgens-Craig shows that the fame of the Bauhaus in America was the result not only of the inherent qualities of its concepts and products, but also of a unique congruence of cultural supply and demand, of a consistent flow of information, and of fine-tuned marketing. Thus the history of the American reception of the Bauhaus in the 1920s and 1930s foreshadows the



patterns of fame-making that became typical of the post-World War II art world. The transfer of artists, intellectual, and pedagogical concepts from one cultural context to another is a process of transformation and integration. In presenting a case study of this process, the book also provides fresh insights into the German-American cultural history of the period 1919 to 1936. The author Margret Kentgens-Craig is Head of the Department of Archives and Collections at the Bauhaus Dessau Foundation in Germany.

This book is available in bookstores or from The MIT Press, e mitpress-orders@mit.edu, i <http://mitpress.mit.edu/>

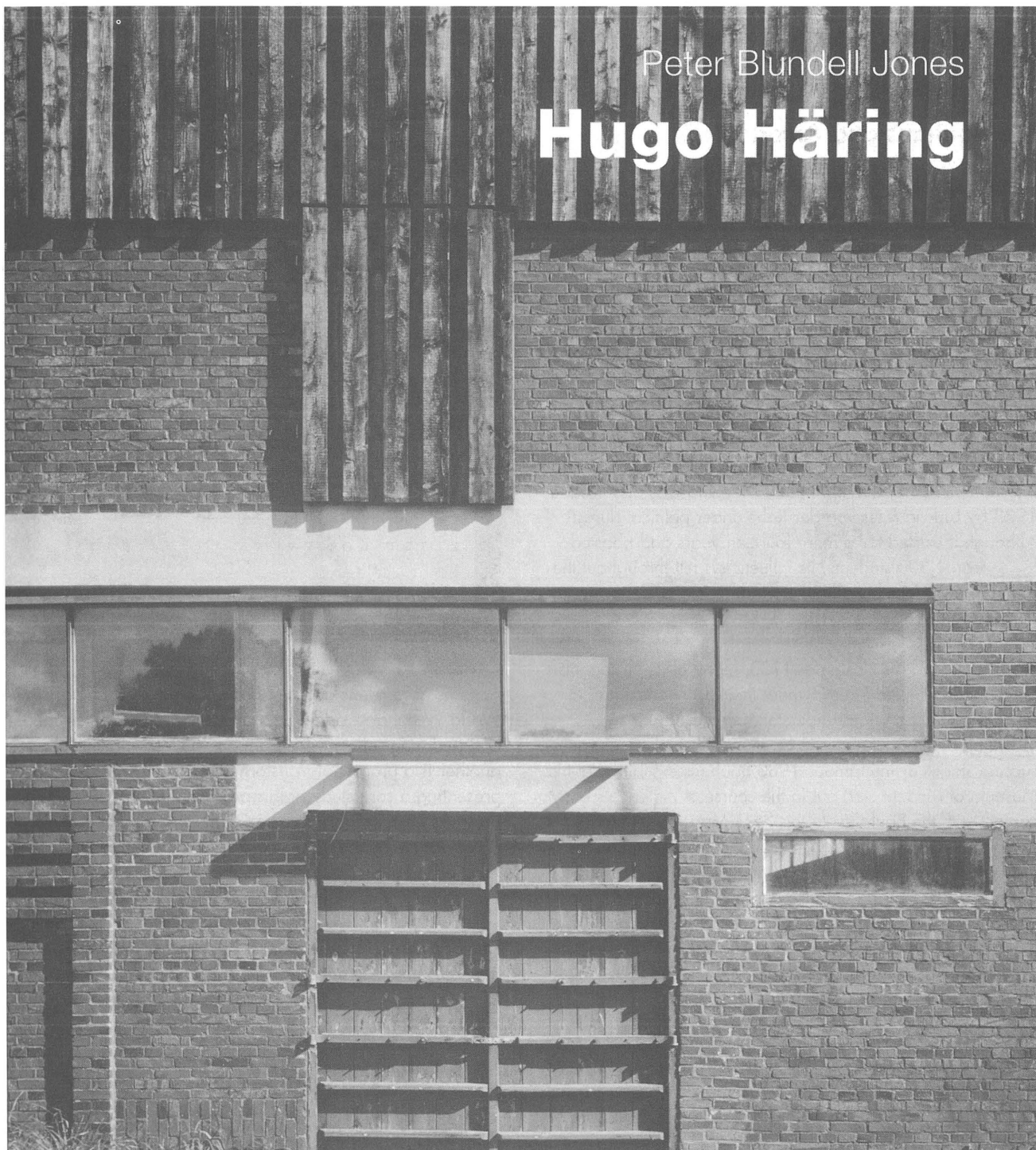
Brazil Built

Brazil Built, The Architecture of the Modern Movement in Brazil, by Zilah Quezado Deckker, E & FN Spon, September 2000, published in association with DOCOMOMO, 232 pages, 116 illustrations; 8 pages colour plates, hardback ISBN 0-415-23407-7, £60.00, paperback ISBN 0-415-23178-7, £27.50.

'Brazil Built' is an examination of the architecture of the Modern Movement in Brazil. This book constitutes a unique presentation of the major Modern buildings in Brazil in their historical context. Prompted by the contemporary re-evaluation of Modernism, and renewed interest in Brazil,

this book examines how the buildings came into being, how they came to be so highly regarded and the changing reactions to them in Brazil and abroad.

Contents: Introduction. Vargas, Le Corbusier, and reinforced concrete. The heroic period. The ministry of education and health building. The Brazilian Pavilion at the New York World's Fair 1939. 'A whole new school'. The museum and the war. The museum of modern art, New York, and architecture. 'America for the Americans'. 'The museum and the war'. The exhibition and the book. The planning of the exhibition 'Brazil builds'. The 'Brazil Builds' exhibition. Brazil Builds: architecture new and old 1652-1942. The Brazilian style. Brazil Builds and the press. The 'Brazilian style' abroad. Construcao Brasileira: Brazil builds in Brazil. Conclusion.



Peter Blundell Jones

Hugo Häring

Hugo Häring - the Organic versus the Geometric

Hugo Häring - the Organic versus the Geometric by Peter Blundell Jones, with a postscript by Margot Aschenbrenner, Edition Axel Menges, Stuttgart/London 1999, 232 pages in English, 270 illustrations in bw., 233x284,5mm, hardcover, ISBN 3-930698-91-9, Euro 78.00 (DM 152.55) sfr 138.00, £ 52.00, US \$ 89.00, \$A 148.00.

Although he has hitherto remained somewhat overlooked, Hugo Häring was a key figure of the Modern Movement, first as secretary of the Ring, the principal organization for Modernists in the 1920s, and second as the main theorist for the Organic stream in German architecture.

Trained at the Technische Hochschule Stuttgart under

Theodor Fischer, Häring's career as a Modernist began when he moved to Berlin in 1921. There he was befriended by Ludwig Mies van der Rohe, whose office he was invited to share, and this became a centre of debate for the new direction in architecture. The two architects set up the Ring, which by 1926 included every German

Modernist of note. Its members dominated the Weißenhofsiedlung of 1927, for which Mies was artistic director, and its success also prepared the way for CIAM congresses, which Häring attended as Ring representative. Despite their political collaboration, Häring and Mies pursued projects in increasingly opposed directions, clarifying each other's position by contrast. Mies pursued general solutions and repeated types, advocating rational construction and flexibility of use, while Häring sought the utmost specificity to function and place - which meant that each building, even each element of a building, deserved to develop its own individual form. The key example was Gut Garkau near Lübeck of 1924/25, with its cowshed of a pearshaped plan devised around the requirements and rituals of farming.

Peter Blundell Jones, Professor of Architecture at the

University of Sheffield, has long been concerned with the organic movement in architecture and has written extensively about it, including a substantial work on Hans Scharoun. The present book is not just a biography of Häring, but an unusually detailed analysis of his architectural work, including many unbuilt projects which have never before been published. It also includes an account of Häring's theory, with translated extracts from his many writings. Through setting Häring within his historical context, and differentiating his position from figures such as Mies, Le Corbusier and Hannes Meyer, Peter Blundell Jones suggests a radical reframing of the early Modern Movement. He was aided in the development of the book by Häring's personal assistant in the late years, Margot Aschenbrenner, who was trained as a philosopher.

Modern City Revisited

Modern City Revisited, edited by Thomas Deckker, E & FN Spon, September 2000, published in collaboration with DOCOMOMO, 240 pages, 10 line illustrations, 122 photos in bw, 23x156mm, paperback, ISBN 0-419-25640-7, £27,50.

- Brings together a team of international contributors with specific experience and expertise in the field of modern planning.
- Marks the millennium with unique critique of key Modernist urban developments around the world.

The supposed rationality of the urban planning of the Modern Movement encompassed a variety of attitudes towards history, technology and culture, from the vision of Berlin as an American metropolis, through the dispute between the

urbanists and disurbanists in the Soviet Union to the technocratic and austere vision of Le Corbusier. After the Second World War, architects attempted to reconcile these utopian visions to the practical problems of constructing or reconstructing urban environments. In the 1970s, the collapse of Modernism brought about universal condemnation of Modern urbanism; urban planning and rationality itself were thrown into doubt. However, such a wholesale condemnation hides the complex realities underlying these modern cities. The contributors define some of the theoretical foundations of Modern urban planning, and reassess the successes and the failures of the built results. The book ends with contrasting views of the inheritance of Modern urbanism in the United States and the Netherlands.

Contents: Foreword: The city after now. Introduction: the Modern City Revisited.

Part One: Alternative Visions. Part Two: Vision vs. Reality. Part Three: The Decline of Modernism. Afterword: The Modern City Revisited: Envoi.

Alte Völklinger Hütte

Alte Völklinger Hütte, by Opus 28, with texts by Lucius Burckhardt, Johann Peter Lüth and Georg Skalecki and photographs by Hans Meyer-Veden, 72 pages in German/English, 56 illustrations, 280x300mm, hardcover, ISBN 3-930698-28-5, Euro 36.00 (DM 70.41), sfr 64.00, £ 24.00, US \$ 42.00, \$A 68.00.

'UNESCO has made the Völklinger Hütte a World Cultural Heritage Monument. Thus a piece of 19th century German industrial plant is placed alongside the Pyramids of Giza, Charlemagne's cathedral in Aachen and the Taj Mahal. Something that seems to be a homogeneous series - the World Cultural Heritage Monuments - has acquired a new dimension with the addition of the Völklingen coal and steel

conglomerate. In the field of monument protection, memory has hitherto been equated with 'preservation', but what preservation meant under the conditions of decay of all human works was scarcely discussed. ... Here the Völklinger Hütte, with its drastically abbreviated half-life period and the rapid change of all conditions brings a new dimension. The thing protected is for once not an object, but a process. It raises the question what events are under conditions of wear, and who is being remembered. ... The plant can stand as technological evidence of the inventive spirit of the 19th-century period of rapid industrial expansion, for the division of labour and the jobs of a generation that still has members living in Völklingen, of a war machine, or a landmark in the local Saar bend. ...

The political story that should be considered above all is invisible. ... The kitschy statement by enthusiastic school teachers that blast-furnace plants are 'cathedrals of work' makes sense only if cathedrals are seen also as documents of collective cooperation. ... The spiritual surroundings of steel

production are limited to the polytechnic approach: the engineer is responsible for function, the owner wants his return and no-one asks how the steel is used. It would be naive to think one was critically disposed to the belligerent policy that led to two world wars, although proximity to France could have conveyed an enlightened view of the world situation. ... Anyone who talks about the cathedral of work should not forget the crypt.' (Lucius Burckhardt in *Daidalos*.) Lucius Burckhardt, a young don at HfG Ulm and ETH in Zurich, later editor-in-chief of the magazine *werk*, professor

at the Gesamthochschule Kassel from 1973 to 1977, in the meantime chairman of the Deutscher Werkbund, is indubitably one of the most unusual 'lateral' thinkers of our day. Johan Peter Lüth worked as an architect, before becoming Director of the Saarland State Conservation Office in 1985. His Colleague Georg Skalecki is responsible for drawing up inventories and for building research there. Hans Meyer-Veden studied photography from 1955 to 1959 in Hamburg. He taught at the Fachhochschule Dortmund and at the Fachhochschule Kiel.

Manipulating Modernism

Mart Stam's Trousers: Stories from Behind the Scenes of Dutch Moral Modernism

Manipulating Modernism, Mart Stam's Trousers: Stories from Behind the Scenes of Dutch Moral Modernism by Crimson (ed.) with Michael Speaks and Gerard Hadders. 010 Publishers, 1999. 300 pages £16, ISBN 90-6450-344-3.

Review by David Wild

The intriguing title of this book already gives clues to both its subject (Dutch Modernism) and its style (not overly reverent), for Mart Stam was one of the heroic figures of the new architecture in Holland. Co-designer of the Van Nelle factory with the firm of Brinkman and Van der Vlugt, teaching at the Bauhaus, going to work with Ernst May in Russia, he was the epitome of a new generation of socially committed architects.

While the subtitle explains further, the back cover sets out the agenda below a Mondrian composition and quotation from the 1920s. The book examines how the successfully exported image of adventurous Modern Dutch architecture has been constructed by revisiting the early image from which it draws; an image, the authors suggest, artfully crafted by key architects.

The title comes from a tale told here by Peter Smithson, that in the famous picture of Mies van der Rohe and Le Corbusier at the Weissenhofsiedlung, Stuttgart (1927), a trousered leg of Mart Stam can be seen between the two, the rest of his body having been erased. It is such manipulation of the historical picture of Modernism that is the theme of the book: a fascinating and enjoyable series of essays, correspondence and photographs.

It's ironic to have to point out that it was Mart Stam's hat that was touched out from the photograph, surely for aesthetic reasons, and that it's a bit of overcoat that's left. Somehow, 'Mart Stam's hat' just doesn't have the same ring to it. The opening article by Wouter Vanstiphout sets the scene.

Moving at a speed close to bebop, it starts with the controversial purchase of Mondrian's *Victory Boogie Woogie* to close with the Municipal Heroin Prostitution Toleration Zone - including on the way such gems as Bakema's fascination with the baker's cart, lifted from a 30 year-old photograph of Brinkman's Spangen deck housing and recurring in drawings of his own huge housing schemes as a 'crazy anachronism'.

This is followed by an exchange of letters between Philip Johnson, inventor of the International Style, and J.J.P. Oud, his former idol, spurned after the war, writing to ask for bicycle tyres. It's hard to imagine Johnson walking into a cycle shop. Shocked at this time by Oud's use of ornament on the roof of the 1946 Shell building, Johnson would nonetheless go one better in 1984 with the AT&T tower. Oud did not get the tyres. The title piece, a conversation between Peter Smithson and Vanstiphout, shows the former in fine fettle. On Herman Hertzberger: 'He thinks himself an important architect but I don't ... I think they should really close that Berlage school. It was founded to save Aldo's building and now you've got this lousy bloody institute and the building is finished'. On Rem Koolhaas: 'You know; he is not an unpleasant person. Everyone else thinks he's a shit, but I've always found him very, very nice.'

The next piece, on Hugh Maaskant, reappraises his *magnum opus*, the 1971 Provinciehuis in Den Bosch. 'Raw Power/No Fun', an interview with dreadful Card Weeber, is just that. If this is not an example of what Sartre called 'bad faith', then I'm a Dutchman. Michael Speaks' defence of Mendini's Post-Modernism in Groningen is followed by Matthijs Bouw and Joost Meuwissen's masterly summary, 'Disney-land with Euthanasia', before the closing picture story by Vanstiphout and Gerard Fox: five double-page spreads of computer-generated collages wittily illustrating the story of Dutch Modernism from Oud to Ben van Berkel.

This compact paperback, packed with illustrations, stimulating and opinionated, is a beautifully produced Dutch delight. A little tart, perhaps?

David Wild is an architect in London. This bookreview has been previously published in The Architect's Journal, March 20, 2000. Reprinted with kind permission of the author.



Mart Stam's hat, not his trouser, was the offending item in this 1927 photograph.



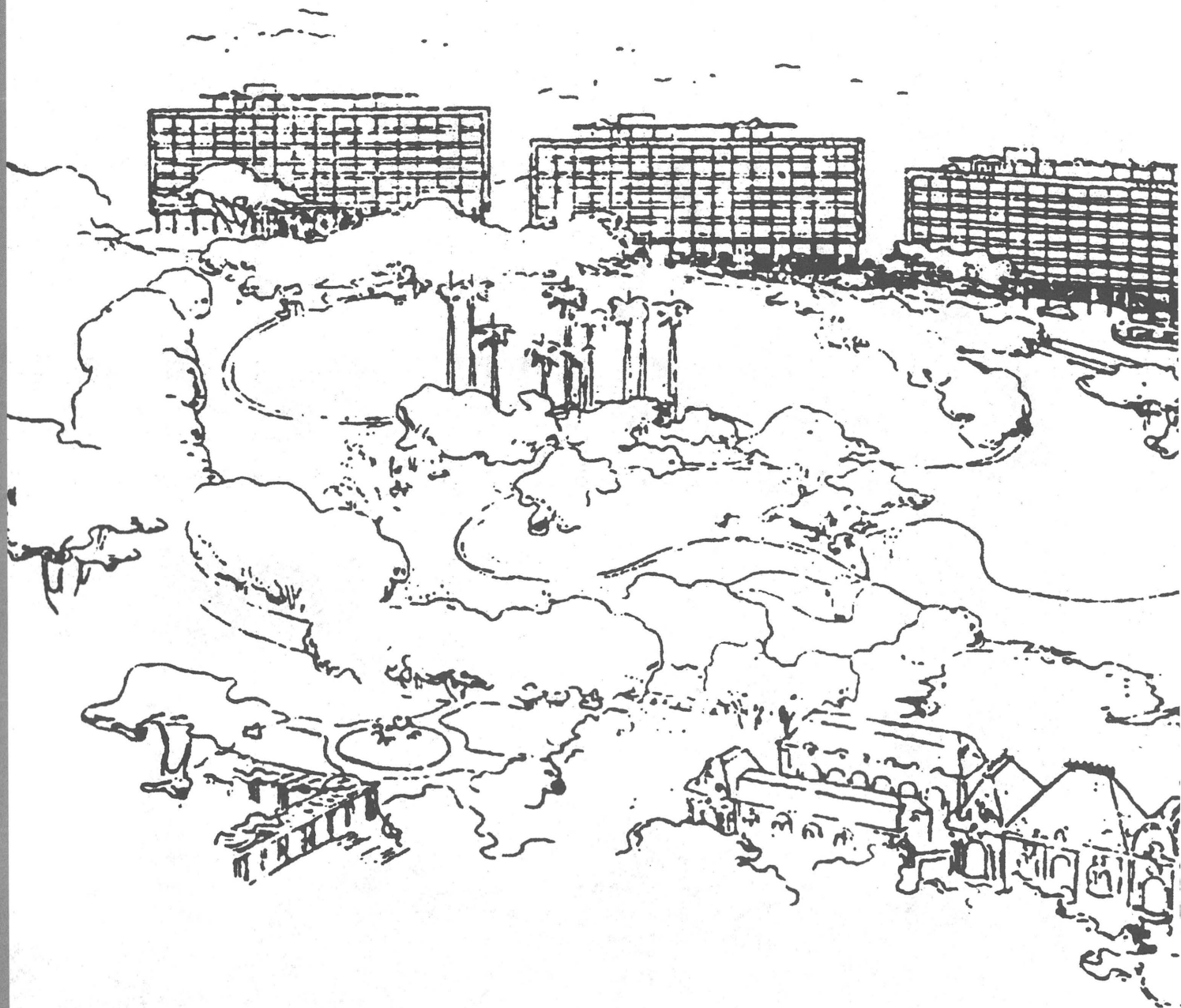
Crimson

with Michael Speaks and Gerard Hadders

Mart Stam's Trousers:

Stories from behind the Scenes
of Dutch Moral Modernism

010 Publishers



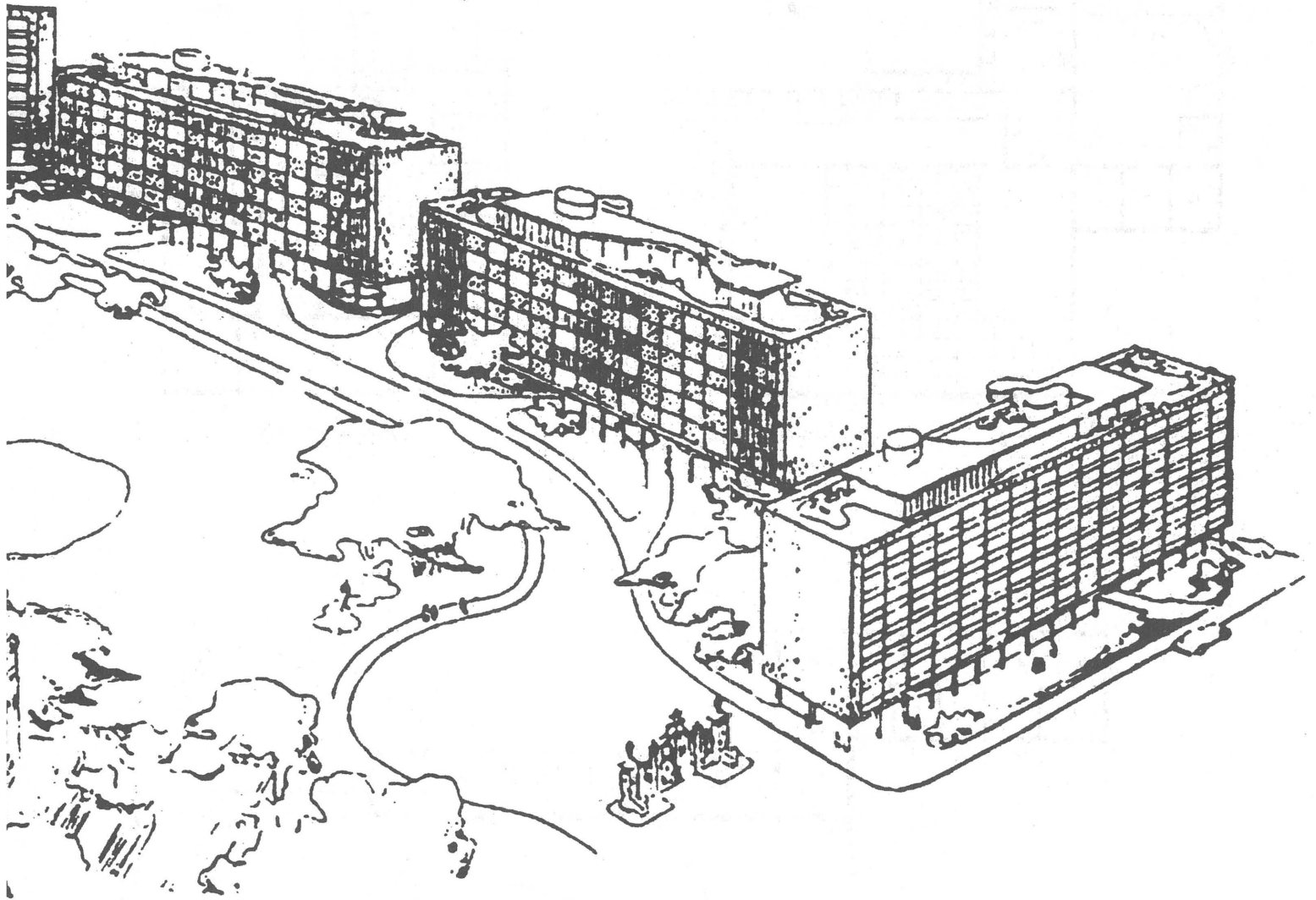
Lúcio Costa (1902 – 1998)

Modernism and Brazilian tradition

Appointed director of the National Academy in Rio de Janeiro in 1930, Lúcio Costa introduced the principles of the European avant-garde to Brazil. Twenty-five years later, he was the author of the masterplan for the country's new capitol Brasília. After the general acceptance of the Modern Movement in Brazil, marked by the 1935 competition for the Ministry of Education, Costa joined the national heritage service SPHAN to further explore the balance between tradition and modernity. His search for a genuine Brazilian architecture has characterized his career until the end.

by Sylvia Ficher

Lúcio Costa's design sketch of the Quinle Park estate. From: Arnou, F., *Brasília*, Rotterdam 1960.



Son of Brazilian parents, Lúcio Costa was born in 1902 in Toulon, France, and came to Brazil in 1917, entering that year the Escola Nacional de Belas Artes, Rio de Janeiro, and graduating as an architect in 1923. From 1922 onwards, he worked with Fernando Valentim, adopting the style favoured by the traditionalist movement, which took its inspiration from 18th Century Brazilian colonial architecture in an attempt to develop a national style. As a neo-colonial architect, he designed several houses and won two important competitions: the Brazilian Pavilion at the International Exhibition (1925) in Philadelphia, and the headquarters of the Argentine Embassy (1928), Rio de Janeiro, neither of which was built.

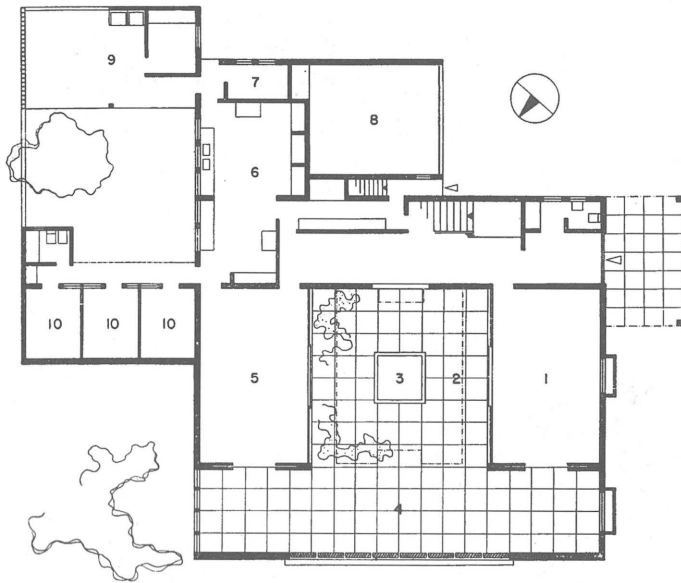
In December 1930, following the installation of the revolutionary government of Getúlio Vargas in November, Costa was appointed to direct the Escola Nacional de Belas Artes and to reform its teaching system. At first his nomination was seen as a victory for the supporters of the traditionalist movement over the academics, but Costa quickly broke with both and proposed a new syllabus, given by specially invited modernist professors, including Gregori Warchavchik, which introduced the principles of the

European avant-garde to art and architectural education in Brazil. His actions were denounced by the teaching staff, and Costa subsequently lost his government support, leaving the directorship in September 1931. At that time he opened an office with Warchavchik, who had just completed his first modern design in Rio de Janeiro; working together until 1933, they carried out some early modern designs, including the Alfredo Schwartz House (1932) and the Gambôa low-cost housing complex (1933).

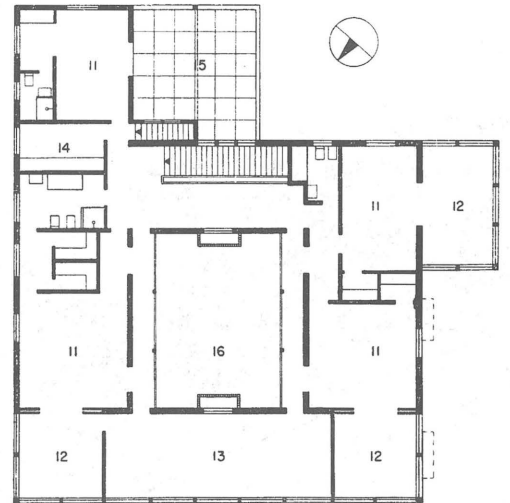
Avant-garde

During this period Costa became the leading proponent of avant-garde architecture in Rio de Janeiro and was increasingly inspired by the rationalism of Le Corbusier who, he considered, gave due importance to the plastic and artistic dimension of architecture, whereas functionalism implied a reduction of the architect's work to the mere resolution of technical problems. This stance was asserted in 'Razões da nova arquitetura' (1934), his most important writing on modern architecture.

In 1935 Costa began his involvement with the design of what would come to be the most influential building in Brazil at

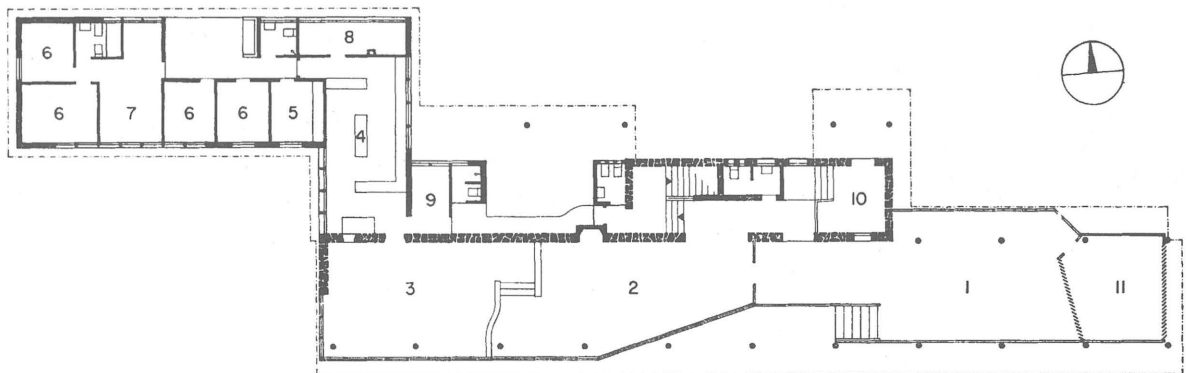


Ground floor 1:400

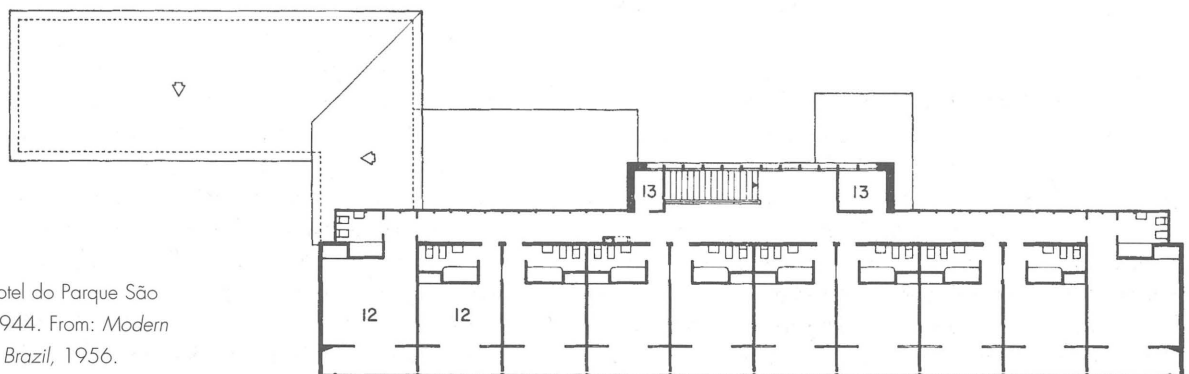


Upper floor 1:400

Plans of the Argemiro Machado House of 1942. From: *Modern Architecture in Brazil*, 1956.



Lower floor 1:500



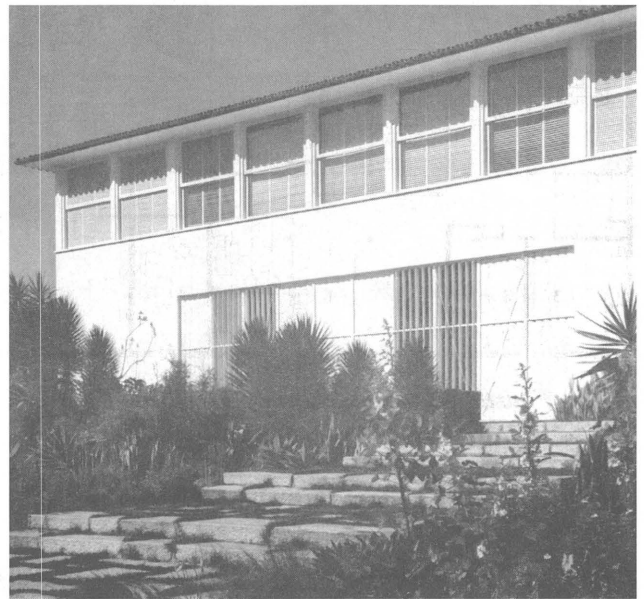
Plans of the Hotel do Parque São Clemente of 1944. From: *Modern Architecture in Brazil*, 1956.

the time, when a competition was held for the headquarters of the Ministry of Education and Health (now the Palácio da Cultura), Rio de Janeiro. The first prize was awarded to a project with decorative motifs inspired by ceramics from the Ilha de Marajó, by Archimedes Memória (1893-1960), incidentally the academic architect who had taken over the directorship of the Escola Nacional de Belas Artes from Costa in 1931, and his associate Francisque Cuchet. Under pressure from modernist intellectuals on his staff, the Minister awarded the prize to the winning team but then made Costa, whose entry had not been placed, responsible for developing a new design.

Costa assembled a team of young architects from his immediate circle: Carlos Leão, Jorge Moreira, Affonso Eduardo Reidy and, later, two new graduates, Ernani Vasconcellos and Oscar Niemeyer, and persuaded the Minister to invite Le Corbusier to come to Rio as consultant on the project. The building was not finished until 1943, but it achieved immediate success among architects in Rio and guaranteed the predominance of the style and of Le Corbusier's influence in Brazilian architecture thereafter.

From patrimony to superblock

In 1937 Costa joined the Serviço do Patrimônio Histórico e Artístico Nacional (SPHAN), a federal body for the preservation of art and architecture, where he worked until his retirement in 1972; he carried out a series of studies on the history of Brazilian architecture, the most important being 'Arquitetura Jesuítica no Brasil' (1941). After joining

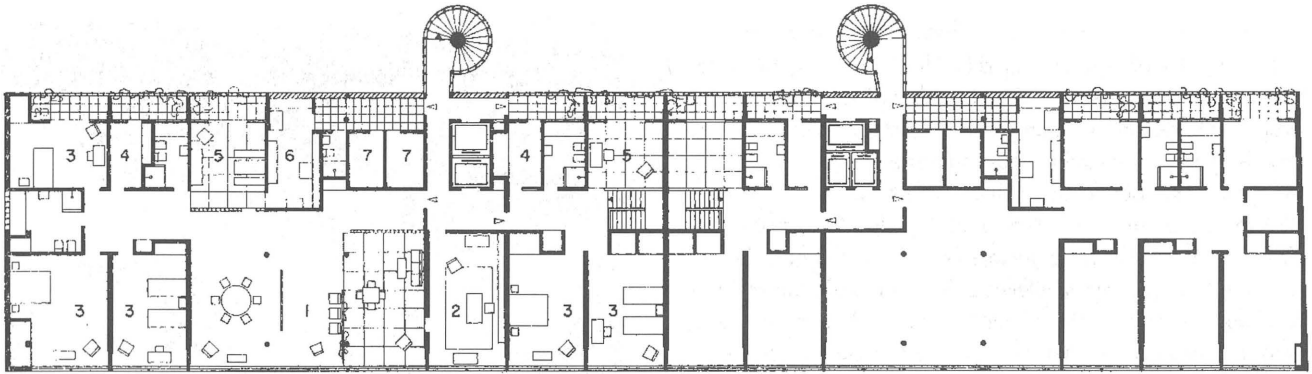


The Machado House in Rio de Janeiro. From: *Modern Architecture in Brazil*, 1956.

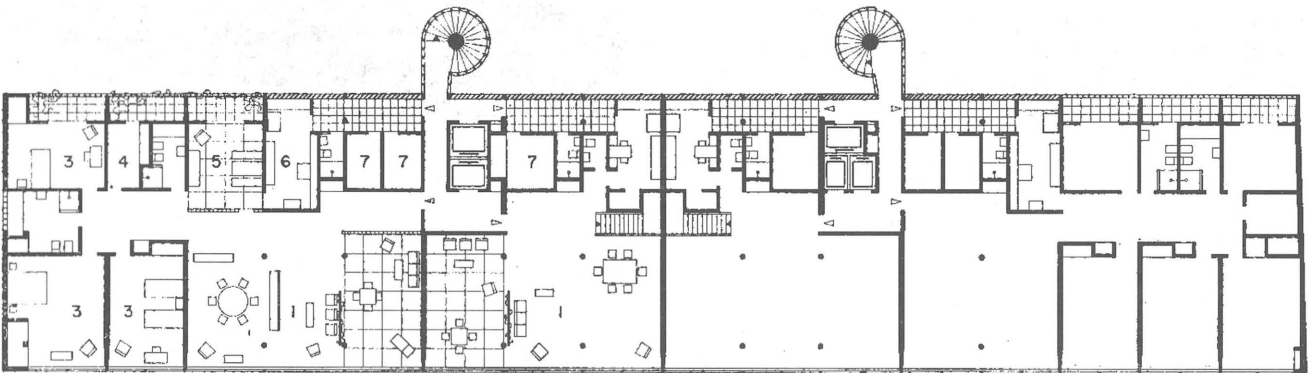
SPHAN he produced relatively few buildings, as he no longer maintained an office, but in 1938 he won the competition for the Brazilian Pavilion at the World's Fair in New York; Niemeyer came second but Costa, believing Niemeyer's design to be better, shared the prize with him and invited him to participate in the development of the



Overview of the Hotel do Parque São Clemente in Novo Friburgo, Rio de Janeiro. From: *Modern Architecture in Brazil*, 1956.

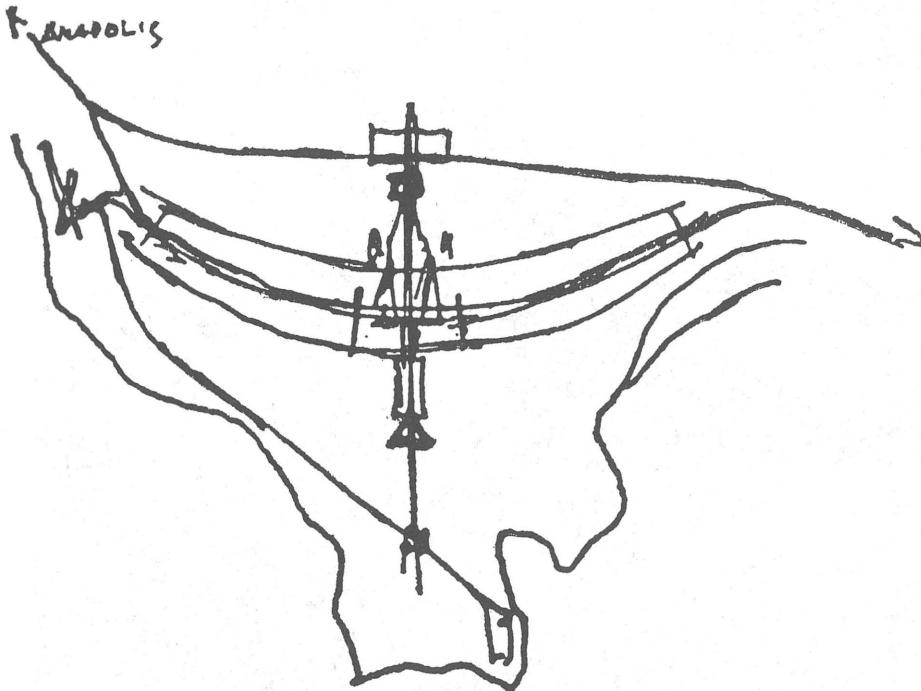


Fourth, sixth and eighth floor 1:500



Third, fifth and seventh floor 1:500

Top:
Plans of the Quinle Park apartments
in Rio de Janeiro, 1948-50. From:
Modern Architecture in Brazil,
1956.



Left:
One of Lúcio Costa's design
sketches for Brasília. From: Arnou, F.,
Brasília, Rotterdam 1960.

Right:
Detail of the Quinle Park apartments'
brise-soleil, designed by Lúcio Costa
in 1948-50. Photo: W. de Jonge.

project (with Paul Lester Weiner in New York). In other works of the period, Costa developed a whole new architectural language; paradoxically, in those projects where monumental considerations were secondary, he employed a synthesis of modern and colonial styles, using such traditional features as verandas, bay windows and tiled roofs with overhanging eaves. This can be seen in his few house designs, such as the Argemiro Hungria Machado house (1942), the country houses of Mrs Roberto Marinho (1942) and Barão de Saavedra (1942-44), both in Petrópolis, and in the Hotel do Parque São Clemente (1944), Nova Friburgo, a design partly inspired by Niemeyer's plan for the Hotel de Ouro Preto (1942). Between 1948 and 1950 Costa worked on a group of three blocks of flats in the Guinle Park, which foreshadowed the superblock solution he was to adopt in Brasília. He participated in the Commission of Five, together with Walter Gropius, Le Corbusier, Sven Markelius and Ernest Nathan Rogers, in the assessment of designs for the UNESCO headquarters in Paris (1952-53). At this time he produced an initial design for the Casa do Brasil at the Cité Universitaire in Paris, which was the basis for Le Corbusier's definitive project. In 1956 he designed the Jockey Club Brasileiro and the Banco Aliança, both in Rio de Janeiro.

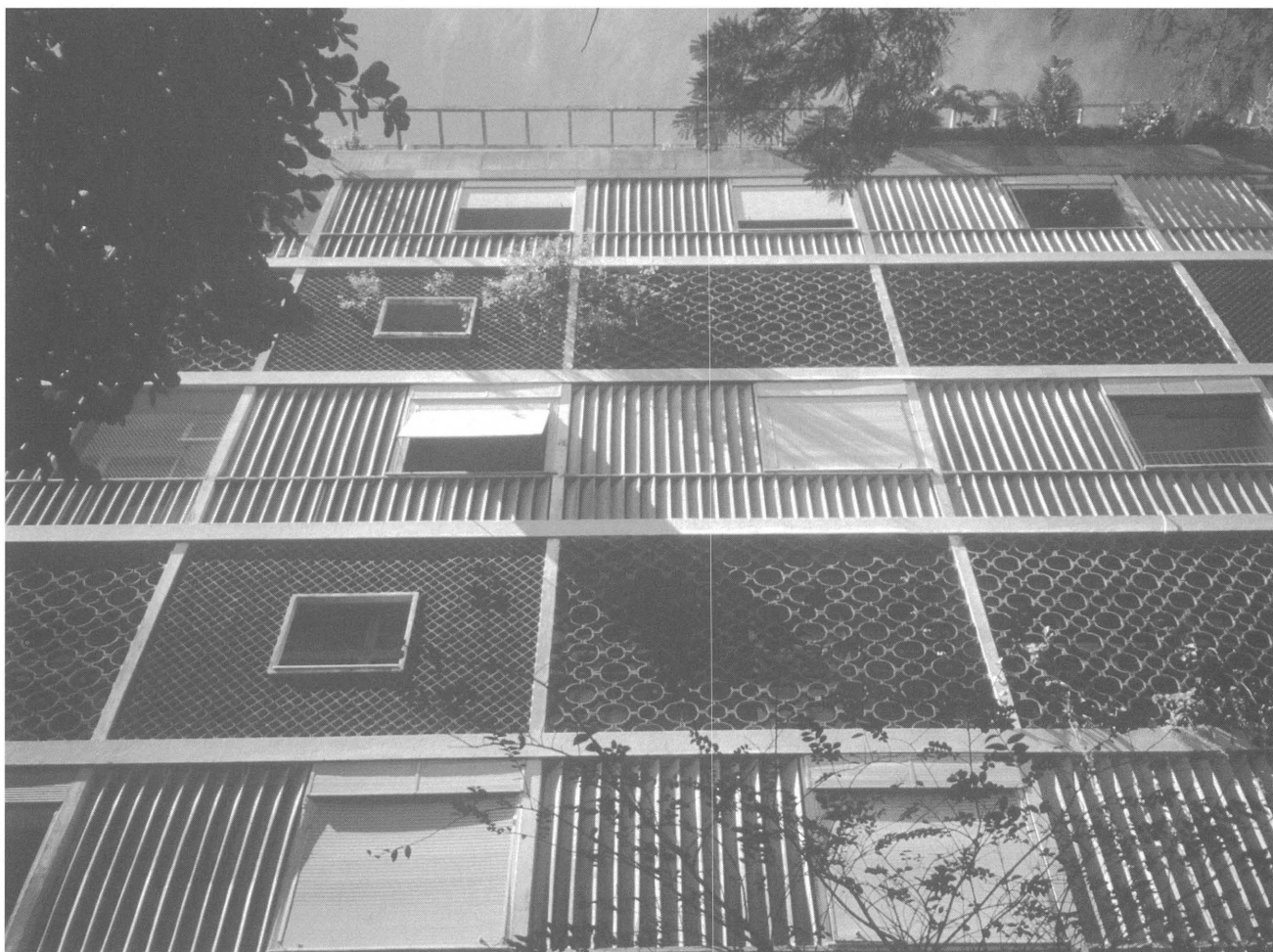
Brasília

In 1957 Costa won the competition for the masterplan for the new capital of the country, Brasília. In this plan he departed

from the usual grid system and proposed a linear traffic axis, where the main residential areas are located; at right angles to this, a monumental axis harbours institutional, government and major public buildings. The resulting cross-shaped plan, which Costa likened to the gesture of taking possession, clearly expressed the principles contained in the *Athens Charter* (1933) of CIAM calling for the separation of different urban activities into zones and the use of isolated, single-function buildings. Low-rent accommodation was provided in rows of single-storey houses and medium and high-rent accommodation was provided in superblocks, i.e. areas of 350 square meters in which blocks of flats, usually six storeys high and built on pilotis, were placed at right angles to each other. These superblocks were built along the traffic axis, on either side of the monumental axis, and local commerce was provided in small streets between them. Costa's plan, dominated by the juxtaposition of motorway technology and urbanism, fulfilled the explicit intention of President Juscelino Kubitschek of building a city for the car; its clarity proved an appropriate framework for the public buildings later designed by Niemeyer. Costa also designed some buildings at Brasília, including the bus station (1959), the television tower (1959) and a superblock (1961).

Changing views

Later urban plans by Costa include that for the Barra da Tijuca (1969), an area extending nearly 20 km along the coast south of Rio de Janeiro. He applied the same principles of zoning as in Brasília but included small, individual



residential areas or 'urban nuclei' with various types of accommodation including houses and flats, as well as parks and nature reserves to preserve the local ecology. Because of its costs, this plan was never fully implemented. In 1987 he produced a plan for the extension of Brasília, proposing the construction of two new wings for housing. The proposal was faithful to the plan of 1957 in its functional zoning and segregation of the people in low-cost accommodation into satellite cities, but it was widely criticized, a reflection of changing views on urban planning.

In the latter years of his long and fruitful career, he made some residential projects, always in his personal and elegant reinterpretation of colonial architecture, such as the Thiago de Mello House (1978), the Fernando Gabaglia Moreira Penna House (1982), and the Eduardo Duvivier House (1988).

Lúcio Costa died on July 13, 1998, in Rio de Janeiro. His pivotal role in the introduction and development of modern architecture in Brazil, not only in his works but also in his writings, is unassailable, and he received many honours and awards during his career.

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Writings by Lúcio Costa:

- 'Arquitetura jesuítica no Brasil', *Revista do SPHAN*, 5, 1941.
- *Arquitetura brasileira*, Rio de Janeiro 1952.
- *Scientific and Technological Humanism*, Cambridge, MA, 1961.
- *Sobre arquitetura*, Porto Alegre 1962.
- *Plano-piloto para a urbanização da baixada compreendida entre a Barra da Tijuca, o Pontal de Sernambetiba e Jacarepaguá*, Rio de Janeiro 1969.
- *Brasília revisitada*, Rio de Janeiro 1987.
- *Registro de uma vivência*, São Paulo 1995.

Bibliography:

- Hitchcock, H.R., *Latin American Architecture since 1945*, New York 1955.
- Mindlin, H.E., *Modern Architecture in Brazil*, Amsterdam / Rio de Janeiro 1956.
- Gazaneo, J.O. and M.M. Scarone, *Lúcio Costa*, Buenos Aires 1959.
- Magalhães, A. and E. Feldman, *Doorway to Brasília*, Philadelphia 1959.
- Bullrich, F., *New Directions in Latin American Architecture*, London / New York 1969.
- Santos, P.F., *Quatro séculos de arquitetura*, Barra do Pirai 1977.
- Harris, E.D., *Le Corbusier and the Headquarters of the Brazilian Ministry of Education and Health, 1936-1945*, dissertation University of Chicago, IL, 1984.

The legacy of modern urbanism in Brazil

Paradigm turned reality or unfinished project?

The Modern Movement ideals of transformation and progress coincided with the national spirit and *zeitgeist* of the 1930s *Estado Novo* in Brazil. Despite a persistent conflict between distinct urbanist views a progressive approach of urbanism became eventually predominant. Its strong impact on urbanist manifestations reached its climax with the construction of Brasília.

This paper explores some negative aspects of the modern legacy in Brazilian urbanism, but by acknowledging that Modern Movement ideals helped to establish a great sense of social consciousness and promoted a common aim, also the creation of a particular identity is recognized. By strengthening local elements of identity the perverse aspects of contemporary globalized culture may effectively be attenuated; an excellent reason why we must not neglect our modern legacy.

by Vicente del Rio and Haroldo Gallo

Certainly in Brazil, more than in many other countries, the Modern Movement in architecture and urbanism has been emblematic and left a significant legacy. Modern constructive and plastic expressions already marked the Brazilian panorama in the 1920s, when the ideological foundations of the movement emerged and it started to be structured around the European experiences of the inter-war period. But it was

only during the *Estado Novo* in the 1930s that the Brazilian Modern Movement would gain body and consistency, turning into a national cultural paradigm, and starting to gather volume and density until its climax with the construction of Brasília.¹ Such a strong paradigm that, even if never fully realized, served generations of young architects, and its signs are still clear in every Brazilian city.²



Placeless landscape resulting from an urban renewal plan by Affonso Reidy for the Esplanada de Santo Antonio, center of Rio de Janeiro. The area resulted from the demolition of a historical and populated hill but the plan was too grandiose and detached from reality to ever be completed. Photo: V. del Rio.

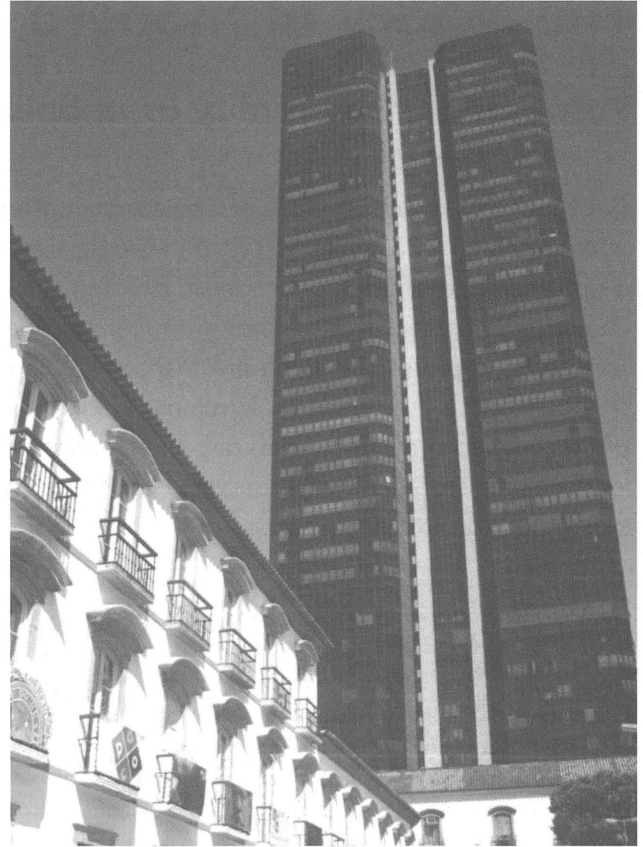


The creators of the Ministry of Education building, perhaps the most important single Modern Movement project in Brazil, argued that it should stand alone in the block, a guideline that was to be disrespected by Oscar Niemeyer himself when hired to design the commercial tower with the blank wall on the background of this photograph. Photo: V. del Rio.

Urban models

As in the European countries, the international ideology of the Modern Movement was also overtly embraced in Brazil because it longed to form a more egalitarian society, to replace the worn-out classicist and historicist aesthetics for a new machine-like one, to industrialize the cities and to strengthen a new working class – political ballast of the *Estado Novo* – and to transform the country from a rural into an urban economy. In a few words, these ideals of transformation and progress coincided with the Brazilian national spirit and *zeitgeist* – like in the positivist motto *order and progress* written in the national flag – and would eventually and inevitably reflect on urbanist manifestations. However, if compared to pure architectural expressions where the modernist models were already dominant, in Brazilian urbanism of the 1930s and 1940s a conflict persisted between distinct urban design models, largely between the 'culturalist' and the 'progressist' models – if we are to use Françoise Choay's typology. Soon, the latter would become predominant whilst finding in Lúcio Costa its major representative.³

An interesting example of the ideological conflict between urban models in Brazil was the hiring of Italian architect Marcello Piacentini – best known for his connections with fascism and Mussolini – in 1935 by the Minister of Education – who would later hire Lúcio Costa's team and Le Corbusier for the design of the world famous new building for the



The favourable vote for the construction of this black-glazed giant tower block that disrupted the historical surroundings and sight lines of Praça XV in Rio de Janeiro, was one of Lúcio Costa's most polemic decisions as the director of the IPHAN heritage institute. Photo: V. del Rio.

Ministry of Education in Rio. Piacentini had previously designed the University of Rome and was to develop the masterplan for a new public university campus in Rio de Janeiro. Although Costa opposed Piacentini's design, and together with Corbu came up with an alternative plan in 1937, the university commission rejected it in favour of Piacentini's, which was only to be dropped with the advent of World War II.

Throughout the 1930s, 'culturalist' urban models were widely utilized in Brazil such as, for example, in the various plans and projects by French urbanist Alfred Agache⁴, in the work of Atílio Correia Lima, such as in his 1933 master plan for the city of Goiânia, in city beautification projects, such as Mayor Prestes Maia's 'avenues plan' for São Paulo, in German and Italian colony and company-towns in Paraná and São Paulo, and in garden-city inspired design of land developments, such as those by The City of São Paulo Improvements and Freehold Company – who even hired Unwin and Parker for their first Brazilian projects – and in Jardim Oceânico, the expansion of the urban frontier at Barra da Tijuca, Rio de Janeiro, in the early 1940s.

Hegemony

Most of these 'culturalist' urban projects, particularly the so-called residential garden neighbourhoods, originally designed for the higher income groups, are low density; houses lay amidst heavily landscaped areas, and streets are

sinuous, bucolic and adapted to topography. Understandably, most of them are now in high demand in the market, and some have acquired a higher status through protective legislation such as special design guidelines. No doubt that, in the case of Brazil, only after being encompassed by the State into its nationalist discourse, the 'progressist' model for modern town planning was to become predominant, unavoidably reflecting in day-to-day urban design. From important but scattered small-scale urban projects, the new model came to dominate the vast majority of institutional design agencies at every level of government – and most importantly in public housing and city redevelopment – through the hands of a young generation of architects, until reaching its peak of expression through the competition and design for the new capital Brasília in the late 1950s.

The construction of a newly planned city to move the capital from coastal Rio de Janeiro to a then wild inner territory was a unique experience among the scant international urban references. The plan became a fact within only a few years, representing an urban model that was at the same time national and international, quickly becoming a world reference and an icon of the cultural maturity of Brazilian architecture and urbanism.

Banalized concepts

On the one hand, the easiness to implement such an urban model in Brazil may be explained in the larger context by the construction of a new State and a new nation, with an identity of its own but at the same time internationalized. On the other hand, it represented a step that was anxiously expected by the Brazilian cultural elite because it gave body to a positivist and rational way of thinking, which origins may be traced back to the Renaissance and to Descartes. For them a problem should be encountered by subdividing it and addressing it by parts, from the simplest to the more complex. This is also the principle contained in the *tabula rasa*, a concept so dear to Corbusian thought and to Brazilian modern architecture and urbanism. One denies the authority of the past and substitutes it by one's own experience, in the light of reason and despising the legacy of history, over which modernism rules by negation, in a city that is safely zoned and physically healthy to function perfectly: to live and work, to circulate and cultivate the body and the spirit.

Therefore, it was not by chance that the modern project found fertile ground to expand in the 1950s and 1960s in Brazil. Because of its compatibility with the national development and housing policies it continued to serve as a model that was deeply inserted in every cultural level and type of expression. From then on, beyond the experience of Brasília but certainly because of its emblematic dimension and its gestural type of statement – which led to the trademark of our modernist generation: the abuse of the pencil stroke as the only method to solve spatial problems – there is also an obscure and less talked-about side to the legacy of Brazilian modern urbanism.

Modernist ideology infiltrated in the daily routine of Brazilian cities not only through the modernist architects acting in the private and public sectors, but also through the explicit

ideologies of important institutional agents, such as the National Housing Bank (BNH; that financed urban development and public housing), the Federal Agency for Housing and Urbanism (SERFHAU; that promoted master planning and urban redevelopment), and the local Housing Companies (COHAB; that built public housing), as well as through land use, subdivision and zoning laws, master planning and urban renewal projects, building codes, and so on. The modernist model was particularly successful because it could also easily serve to the interests of capital and profit, either because of its 'simplicity' or of the extreme densities that it promoted through the concept of the 'towers in the green', moreover when the model was bastardized by land speculation and banalized by simplistic urban regulations. The large majority of these results are not even faint comparisons to the quality existing in the legacy of Brazilian Modern Movement architecture, particularly that of the so-called heroic period that today is re-valued as the object of a fresh new set of research and discussions, particularly in Brazil. They constitute, on the contrary, good examples of how the unrestricted and thoughtless adoption of modern urban precepts can be harmful even if by the hands of our own heroes.

Institutionalization

A widely met effect of the legacy of this urbanism, that permeated the daily life in all cities, is the range of restrictive disposals and classifications in the zoning laws. As these are aimed at the protection of urban functions from the impact of one another, zoning derives from a rupture in the vision of the city as a *continuum* – physical, social and historical – and it tries to promote a fractured approach that does not recognize the richness of urban complexity, and tries to deal with the city through compartmented sectors that are more easily manageable.

In the large cities of Brazil, as in most large cities elsewhere, it was mainly through zoning that the modernist vision promoted monofunctionalism and deflated the urban centres, generating particularly perverse impacts in the historical cores of larger cities, empty areas that lost their residents, are insecure and left to marginality, and suffer from



Wide, dangerous and uncomfortable 'no-man's land' for the users instead of 'green and free' areas at the University of São Paulo campus, a typical example of State-promoted modern urbanism. Photo: H. Gallo.



Unpersonal curtain-walled architecture with a 100% land coverage in Cinelândia, downtown Rio de Janeiro; a common example of disrespect to the environment, the surroundings and the urban tissue. Photo: V. del Rio.



Typical leftover from the urban legislation that predicted a progressive enlargement of the street's rights-of-way for the implementation of an ambitious and modernist street system at Lapa, Rio de Janeiro. Photo: V. del Rio.

degrading processes that are extremely difficult to reverse. Paradoxically, these areas are well infrastructured, have easy access from all parts of the city, and in most cases are loaded with strong meanings for their communities. Complementary to zoning, the urbanist directives, descriptive mandates and other ways of regulating the intention and form of urban development, in the case of the large majority of Brazilian cities, end up institutionalizing certain building types or architectural models against others, that are out of tune with the repertoire of the supervising architects or of land developers, and sometimes even against cultural and social traditions. Thus, the large free or green areas of modern urbanism turn into uncomfortable and dangerous emptiness, while impersonal commercial tower blocks with curtain wall facades tragically disrupt the old urban tissue. New setbacks generate discontinuities and no-man's land that is both useless and dangerous. The same model of free-standing residential towers on top of a multi-storey garage-base with 100% land coverage is used as a stamp in every single city district, and the dichotomy between the public and the private realms is encouraged through the exclusion of the semi-public and the annihilation of all scales of transition.

Walled communities

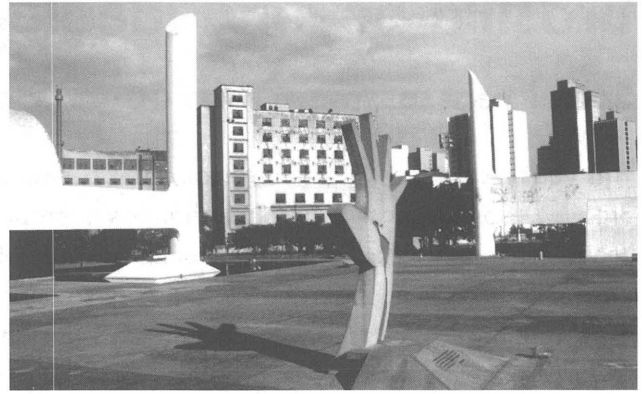
In Brazilian cities, zoning and urban regulations - fundamentally a modernist legacy - guarantee, in a perverse way, that developers do not run the risk of having their investment threatened by a new and undesired neighbour. Besides, together with wider investment policies such as in infrastructure and road construction, these development incentives assure new centralities, gentrify urban areas and expel to less equipped areas - like the urban periphery or *favelas* on the hills - the lower-income groups that are unable to adapt to the official urban and architectural typology. More recently, this exhausted model of modernism survives in Brazilian cities through the expansion or the development of new urban fringes. On the one hand, post-modernized and bastardized, as in the case of Barra da Tijuca in Rio de Janeiro, where Lúcio Costa's *Plano Piloto*⁵ has, in essence, facilitated a progressive transformation of the area into a locus for all possible kinds of malls and shopping centers, walled communities in the style of Williams Island in Miami, theme parks and other experiments of globalized capitalism.⁶ On the other side, by assuming a character that is discontinuous, exogenous and excentric to the urban environment where it is inserted.

Lessons

But if in this article we exposed rather briefly and generically some negative aspects in the legacy of Brazilian modern urbanism, the current revision of modernism - which is also present in Brazil - minimizes the possibilities of them being repeated. At the same time it points out models and solutions that are much more responsive to the needs of the users and to the natural and built environment where new inserts may be required. Above all, we need to admit and to point out a strong facet in its positive character: Modern Movement ideals helped to establish among us a great sense of social consciousness and advanced a unity in purposes, which allowed the creation of an expression of identity - a true



Landscape at Barra da Tijuca, Rio de Janeiro, with a wall resulting from the 'towers in the green' concept, each one in his own walled and gated parcel, behind a commercial strip and the express way, where the large distances make it almost impossible for the pedestrian to perceive anything. Photo: V. del Rio.



Recently designed by Oscar Niemeyer, the Latin American Memorial is a handful of elegant sculptural pieces of architecture that relate poorly to one another and generates empty and uncomfortable areas, besides negating the surrounding city. Photo: H. Gallo.

paradox with the precept of negation of the historical repertoire for the creation of new forms. Arguably, this debt to the legacy of our major urbanist, the architect Lúcio Costa, is perhaps the most fecund source for current urbanism in Brazil. Firstly, because he moved easily between the scale of the building and that of the city – what certainly was a rupture with the Portuguese tradition and evidently conducted to a clear unitarian position in Brazilian architectural education, unlike many countries. Secondly, his lifetime devotion to historical preservation through his publications and his professional work at IPHAN – the National Institute for Historical and Artistic Patrimony. These aspects of Costa's personality extended to several generations of architects that, if they did not incorporate the formal and technological repertoire from the past, they knew how to find lessons of architectural and spatial composition most adequate to our particular way of life, and how to incorporate these lessons into their typological, formal and technical repertoire.

Thus, both Brazilian architecture and urbanism could generate an identity that, although referring to international ideals, was idiosyncratic for the Brazilian case and expressed safe and collective values, unlike the post-modern culture that, with its dispersion and diversity of points of view, generates a constant crises of values and identity. Most probably, it is by establishing and strengthening local elements of identity that we may effectively attenuate the perverse aspects of contemporary globalized culture, an excellent reason why we must not neglect our modern legacy but pursue what is most fecund in our unfinished modern project.

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Notes

1. The 'Estado Novo' – which literally means New State – was born as a military coup d'etat led by the national populist leader Getulio Vargas in 1930 who, promising to modernize and industrialize the country, gathered strong political foothold in the newly formed urban proletariat and stayed in presidency until 1945. During that period, the regime compromised with capitalist, socialist and even fascist ideological ingredients toward its own national political project. See: Skidmore, Thomas, *Politics in Brazil, 1930-1964: An Experiment in Democracy*, Oxford University Press, London 1967.
2. For an excellent recent historical account of Brazilian architecture see: Segawa, Hugo, *Arquiteturas no Brasil, 1900-1990*, EDUSP, São Paulo 1998.
3. A wide account on the evolution of Brazilian urbanism may be found in: Leme, Maria Cristina Dias (org), *Urbanismo no Brasil: 1895-1965*, Studio Nobel / FUPAM, São Paulo 1999.
4. With very strong connections to the English garden-city movement, Alfred Agache was one of the leaders in the foundation of urbanism as a profession in France and had a busy practice – he came second in the competition for the design of Canberra and was responsible for one of the first efforts in regional and coastal town planning for tourism in Portugal. From 1926 to 1930 he developed a careful masterplan for Rio de Janeiro, where beautification, urban design and structural physical planning combined with a substantial preoccupation in sanitation, vehicular circulation, public housing and satellite towns. After this, he lived and worked in Rio until 1959.
5. Following the success of Brasília, in the mid 1960s Lúcio Costa was hired by the city of Rio de Janeiro for a conceptual plan for Barra da Tijuca, a large and mostly virgin territory to the south of the city that was to receive urban expansion. His modernist plan followed the principles of a tree-like freeway system that define groups of free-standing towers in green areas interposed with groups of low-rise housing, very strict zoning and a strong desire to protect large portions of the natural landscape, the beaches and lakes.
6. Del Rio, V., and Santos, A.C., 'A Outra Urbanidade: A Construção da Cidade Pós-Moderna e o Caso da Barra da Tijuca', in Del Rio, V. (org), *Arquitetura: Pesquisa & Projeto*, Pro-Editores & PROARQ-FAU/UFRJ, São Paulo 1998.

Brasília beyond ideology

Social reassessment of a 40-year old

This year marks the 40th Anniversary of Brasília, the modern capital that was to symbolise post-colonial Brazil. Despite extensive literature that has been published on the aesthetic and ethic dimensions of the urban scheme of Brasília, little has been said about its social performance. This paper explores the implications of its configuration to different sorts of people, and discusses whether different social expectations may be reconciled by the city's design. Does Brasília have the potential to transform towards the elimination of its problems, and the preservation of its undeniable qualities?

by Frederico de Holanda

A lot has been written and said about Brasília, in various attempts to understand its logic and its correspondent implications to the people who live here, or eventually visit the city. It would be very arrogant – and actually untrue – to say that all that has been written about the city is mistaken or has been victimised by ideological traps. Nevertheless, I will suggest that insufficient attention has been paid so far to two fundamental issues: a) the form of the city itself, and how it performs according to different expectations of different social actors involved; and b) the long term historical precedents of Brasília.

In the first case, previous literature is lacking in rigorous,

systematic and detailed description of its urbanistic form, on the basis of which the eventually contradictory performance of its various dimensions might be revealed. In the second case, the genealogy of Brasília does not go sufficiently back in time, to allow the revelation of obvious relations with examples of the distant past. This paper attempts to offer a contribution in both this instances, reporting briefly on findings of ongoing research.

Spatial attributes

The spatial description of a city necessarily depends on the explanatory aspects we have in mind. For example, a

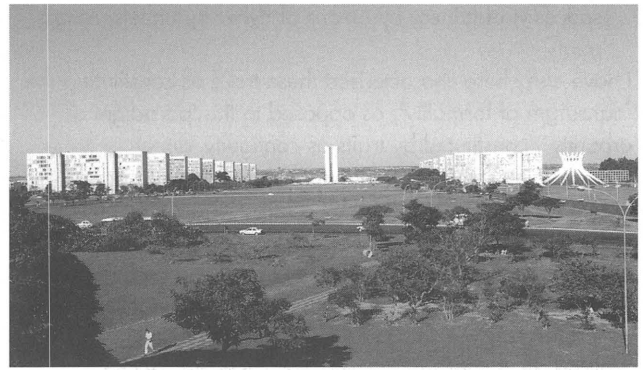


Quiet inside a superblock. Photo: Wessel de Jonge.

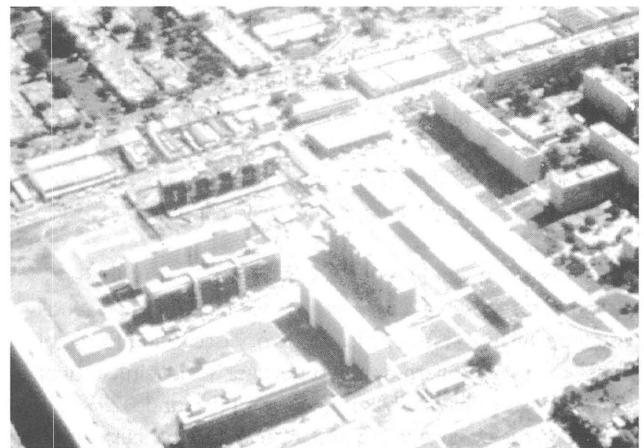
description suitable for understanding the bio-climatic performance is different from one aiming at revealing the visual identity of the place, or the capacity of the built form to orient people moving around. In this paper I will deal with a different perspective from either above: one that aims at understanding the implications of built form for the mode of life of people, and by which we understand here the way people stay / move in places / across places, in order to meet other people. We are thus dealing with *encounter systems*. As follows, I will suggest some fundamental attributes to be considered.

Take the spatial attributes we find at the Esplanade of Ministries, in Brasília:

- The place is globally constituted as a 'morphologic peninsula', attached to the Pilot Plan, which in turn is strongly separated from the rest of the spatial formation of the Federal District;
- All buildings are isolated units - there is no single instance of aggregation of individual cells;
- The Esplanade is built on an artificial *plateau* five metres above the surrounding ground level;
- The amount of open space by far surmounts the space occupied by buildings, which implies a very large permeability indeed, for movements across space in all directions;
- There is a great proliferation of blind walls, which, together with other attributes previously referred to, generate a large number of blind spaces;
- A strong insulation of building interiors from exterior



The Esplanade of Ministries, in Brasília. Photo: Frederico de Holanda.



A set of superblocks of the South Wing. Photo: Frederico de Holanda.



South Commercial Sector, in the urban core. Photo: Frederico de Holanda.

spaces is obtained, by means of flyovers, tunnels, ramps, pools.

I have elsewhere characterised these traits as constituting the 'paradigm of formality', as opposed to the 'paradigm of urbanity', constituted by traits as contiguity, direct relationships between interior spaces and exterior ones, public spaces intensely 'fed' by doors of individual buildings everywhere etc.¹

Mutatis mutandis, the attributes we find in the Esplanade of Ministries are practically the same we predominantly find all over the Pilot Plan, some of them even more explicitly realised, as the large open space surface in-between buildings, which is higher in the residential superblocks than in the Esplanade, when we consider the actual possibilities of permeabilities under the pilotis. Even in the central areas, such as the South Commercial Sector, we still find these fundamental attributes. Moreover, these are not only local attributes of specific areas, but as well global attributes of the Federal District, particularly in what concerns the vast 'no-man's land' separating both central nucleus - i.e. Pilot Plan - from periphery, and the various satellite cities among themselves.

But the point is: what are the social implications of these patterns, for those who live here, or for those who eventually visit the city? Do these implications vary according to social class? Do these patterns imply a peculiar social structuration? On the basis of the study I am reporting (Holanda 1997b), the answer is positive to the two latter questions. Further to the findings of an inquiry realised in the Federal District we have tried to characterise class attributes, and the way people use and assess the city.

Encounter systems

The inquiry involved people living in different areas and belonging to different social strata; 297 home interviews were made, in five distinct residential environments. Our inquiry has allowed the identification of such styles, by means of the encounter systems, which are established along the social spectrum we have here. This was done basically through two different sorts of information:

- Type of places which are used in leisure time, according to social class and income level;
- Category of people that constitutes one's group of friends.

The results are summarised in tables 1 and 2. Encounter systems within the same class present, of course, some variations, according to income levels, but invariances are much more significant. This demystifies some traditional propositions concerning the behaviour of the poorest segments of the population as being determined essentially by their buying power: some fundamental social mores are kept, for the same class, even when income levels increase significantly.

Manual workers use their own homes much more than the middle class. The same happens with the use of public space, more intense among the manual workers than among the middle class, but here an interesting qualification is needed. Among the manual workers there is a great difference in quotations according to the two income levels that have been assessed within this category: 5.7% and 40.0%, respectively. It may as well be that daily and random use of public space

itself seems to present different modalities. It is possible that there were few declarations of leisure time in public space, in the former case, because the presence of the people in the streets has more to do with the instrumentalities of daily life than with the entertainment of encounters for their own sake. At the very least, it has to do with leisure in such a way imbricated with the practicalities of life as not to be identified with leisure as such.

Quotations about going to closed places of irrestrictive access (night clubs, restaurants, cinemas, theatres etc.) also reveal interesting features: there are far greater number of quotations by the middle class, than by the manual workers: 22.7% and 16.0%, for the two income levels, respectively, in the former, and 0.0% and 6.7%, for the two income levels, respectively, in the latter.

Friends

Let us now examine the nature of the group of friends, as summarised in table 2. Relationships with relatives do not differentiate the two classes clearly, but the relationships with neighbours indeed do: manual workers refer to the latter in more than 30% of the cases, for both income levels, while middle class does this 18.2% of the cases for the first income level and 10.4% for the second, defining clearly transpatial tendencies. The relationships with work mates also differentiates the two classes, in the sense that, independent of income, these relationships are high for the middle class, but they will only be high for the manual workers when the income level is also high. This also confirms the predominance of transpatial relations for the middle class, independent of income. In the case of the school mates, such consistency repeats itself, although in less significant ratios: in the two income levels, the cases of the manual workers are clearly in smaller numbers, compared to the cases in the middle class. Now, against the most popularised critical evaluation of Brasilia, by which everybody would supposedly dislike the city 'for want of street corners' (for example Holston, 1993, whose criteria for having selected a handful of interviewees as his basis for analysis is not made clear), this is certainly not the significantly statistical view held by its inhabitants. Still, this is not to say that the plea for greater urbanity is completely lost among the inhabitants of the Capital. A summary of my results is offered as follows.²

Problems

In terms of the global assessment of the city, we are clearly facing an 'apologetic hegemony': to live in the Federal District is considered as 'good' or 'very good' by the majority of social classes or income levels, as can be learned from table 3. Also, this 'middle class paradise', as more often than not it is referred to, is overall more praised by manual workers than by middle classes. Among the latter, approval increases markedly with income.

Admittedly, in this sort of inquiry it is always difficult to disentangle spatial from non-spatial reasons related to the evaluation, as some authors have correctly pointed out³. A way to somehow bypass such a problem was to ask people to identify the problems and qualities of the places under consideration. Through this, and notwithstanding that 'apologetic hegemony', different stances on the city according

Table 1. Use of places in leisure, per class and income levels.

TYPE OF PLACE	INCOME: UP TO 5 MINIMUM WAGES		INCOME: MORE THAN 5 MINIMUM WAGES	
	MANUAL WORKERS	MIDDLE CLASS	MANUAL WORKERS	MIDDLE CLASS
One's own home	60.0	45.5	60.0	47.2
Other 's homes	20.0	13.6	20.0	24.5
Public space	5.7	18.2	40.0	23.6
Irrestrictive access (freq)	-	22.7	6.7	16.0
Irrestrictive access (reg)	17.1	27.3	6.7	27.4
Restrictive access (freq)	2.9	4.5	13.3	14.2
Restrictive access (reg)	5.7	22.7	26.7	20.8
Leisure in the neighbourhood	79.4	45.5	66.7	29.2
Leisure outside the neighbourhood	11.8	31.8	20.0	49.1

Observation:

The income levels were divided into two categories: up to 5 minimum wages, and more than 5 minimum wages. This is a traditional threshold adopted in Brazil as a reference for family financial support with public funds. In October 1994 (the time the interviews were made), the minimum wage in Brazil was the equivalent to US\$ 70.00. In April 2000, it was US\$ 83.00.

to social class have been revealed.

In the interviews, we did not, on purpose, specify the type of problems we were asking people to identify: they were completely free to indicate any sort of problem they believed it was worth pointing out. It is thus important that, for both classes, the two main problems are urbanistic ones: 'transportation' and 'bad accessibility' occupy the first two places in the list, for both classes - the only difference is that they change places, according to class. Public transport is considered 'bad' or 'very bad' by 35.5% of the people who use it, and 'periodicity', 'convenience' and 'cost' (the highest

fares in the country), are the main reasons for such negative assessment. Social discourse thus confirms the diagnosis of technical discourse, by which it has been pointed out that we have, in Brasília, a ratio of 1.0 passenger per kilometre of bus lines, whereas in other Brazilian cities of similar size, this ratio jumps to 3.0, sometimes even 4.0 passenger / kilometre. Such a problem is structurally related to the land-use pattern we have in Brasília: with such low densities, discontinuities of the urban tissue, and zoning, there is no economically viable solution for public transport. Specifically for the manual labours, 'cost of life' is indicated among the

Table 2. Group of friends, per class and income level.

GROUP OF FRIENDS	INCOME: UP TO 5 MINIMUM WAGES		INCOME: MORE THAN 5 MINIMUM WAGES	
	MANUAL WORKERS	MIDDLE CLASS	MANUAL WORKERS	MIDDLE CLASS
Relatives	42.9	27.3	26.7	36.8
Neighbours	31.4	18.2	33.3	10.4
Work mates	5.7	22.7	20.0	24.5
School mates	2.9	4.5	-	8.8
Group structure: same people	73.5	45.5	60.0	56.6
Group structure: new people	26.5	54.5	40.0	43.4

Table 3. Group of friends, per class and income level.

ASSESSMENT	INCOME: UP TO 5 MINIMUM WAGES		INCOME: MORE THAN 5 MINIMUM WAGES	
	MANUAL WORKERS	MIDDLE CLASS	MANUAL WORKERS	MIDDLE CLASS
Very bad + bad	-	9.5	6.6	1.0
Good + very good	97.1	66.7	93.4	83.7

Table 4. Main problems and qualities of the city for the middle class.

PROBLEMS	QUOTATIONS (%)	QUALITIES	QUOTATIONS (%)
Bad accessibility	18.6	Availability of services	15.3
Transports	9.3	Quietness	13.1
Climate	8.5	Landscape design	11.7
Safety	7.8	Generous spaces	9.5
Availability of leisure	7.8	Good accessibility	7.3

Table 5. Main problems and qualities of the city for manual workers.

PROBLEMS	QUOTATIONS (%)	QUALITIES	QUOTATIONS (%)
Transports	16.7	Availability of jobs	25.0
Bad accessibility	14.3	Quietness	15.0
Availability of leisure	14.3	Sociability	10.0
Safety	11.9	Climate	10.0
Cost of life	9.5	Availability of services	7.5

five more important problems. Although in a more indirect way, again here we find relations with the city's spatial order. Land prices in Brasília are two to three times higher when compared to areas of similar social status of other Brazilian cities. Such prices are largely a result of 'monopoly rent' (Gonzalez, 1985) determined by the relatively small amount of available land in the vicinities of the more privileged areas as far as the existence of jobs and services is concerned. This is typically what occurs with the Pilot Plan in its isolation in relation to the satellite cities. This accordingly implies higher costs of the built space, which in turn implies higher costs of the services it houses.

Qualities

As to the qualities, the aspects which have been quoted in the interviews illustrate better the different points of view about the city. For the manual workers, I have confirmed in great measure the conclusions reached by a previous study by Machado & Magalhães (1985): except for 'quietness', which is somehow related to the spatial order, the main qualities are related to 'life chances' - i.e. 'jobs', 'services', 'sociability' -, not to the city's urbanism. Concerning the middle class, however, the picture is a rather different one, for Brasília's urban space peculiar attributes are explicitly praised: 'good accessibility' (for an intensely motorised population, of course), 'landscape design' and the 'generosity of open spaces'. There is an apparent paradox here, for those who best praise the open spaces, are exactly those who less use them, as we have seen. But it just happens that in Brasília, as anywhere else, the 'use' that middle class makes of open spaces is essentially symbolic: large empty spaces constitute the other side of the coin of an essentially transpatial life-style. Furthermore, there is an important ethical implication here: although more systematic work is still needed in this field, it is reasonable to assume that those who inhabit the most generous spaces of the city are exactly those who pay less for it. For even considering the high income levels found in the Pilot Plan and its immediate

Individualisation of middle-class housing seems to be ruled by security measures. Photo: Wessel de Jonge.



vicinities, it is virtually impossible for its inhabitants to pay for the real costs of the infrastructural operation of such spaces, which are, therefore, strongly subsidised by the state. We witness here a specific contribution of Brasília's urbanism to the well-known perverse income concentration of Brazilian society.

Old paradigm

The above reasoning points to the unsatisfactory status of many statements made in the past. Take for example Pedrosa (1981), when he argued, still in the 1950s, during the building of the capital: 'stop Brasília, and a military dictatorship will be established in Brazil.' As we well know, Brasília was built, and a military dictatorship was established in Brazil from 1964 to 1985. Moreover, it was precisely during the military governments that Brasília was consolidated as the seat of federal power, far separated from the stronger basis of organised civil society in Rio de Janeiro and São Paulo. Gräeff (1979), in turn, has claimed that the architecture of the city announces 'an order of authentic justice and true human solidarity.' In this line of reasoning, if we find here a blatant situation of *social apartheid*, the city is not to blame, but the very nature of Brazilian society. In turn, there are those who believe that, if Brasília were not built, and if the capital were not transferred from Rio to the central plateau of the country, a dictatorship would not have been established and the levels of corruption in the country would be much lower, a reasoning

that now and then reappears in the press.

Some of these statements have been plainly denied by subsequent events, others are not supported by serious empirical evidence, others still are controversial in the light of recent historical studies. Concerning this latter aspect, my evidence refutes these claims on two counts. First, as a result of the comparative analysis between Brasília and case studies of the past. Second, as a result of the analysis of Brasília itself, in terms of the differentials which obtain in the use and in the evaluation of the city, depending on the social class involved. Let us see each of these points in turn.

Ancient instances

Concerning the first point, and despite the obvious aspects – mainly functional and technological – by which Brasília may be clearly characterised as a 20th Century metropolis, many of the configurational traits I have commented on reproduce instances we find in the ancient past. Separation by means of huge 'no-man's land' areas, strong insulation between interior and exterior spaces, proliferation of blind spaces, are found in examples as varied as Mayan pre-Columbian ceremonial centres, Zulu *kraals* in pre-colonial Africa, French feudal castles, let alone Versailles, ancient Pekin, Ankor Wat, and so many other instances across vast spans of space and time, all constituting, with minor variations, what I have called the 'paradigm of formality'⁴. And what is crucial: such paradigm goes hand in hand with hierarchical societies in





which asymmetries in access to resources, of one kind or another, were always very significant. Concerning the second point, a more systematic study of the spatial performance of Brasília vis-à-vis other Brazilian cities is a task to be undertaken in further work. Still, we have seen how Brasília's urbanism itself implies inequalities concerning the use and the evaluation of the city, in relation to the social classes involved: on the one hand, the more people entertain a transpatial (i.e., middle class) mode of life, the more the city's urbanism is praised; on the other hand, the most important problems pointed out by the manual workers are directly related to the city's spatial structure. In important respects, Brasília constitutes an expensive, uncomfortable and

even dangerous setting to be lived in, particularly for the manual workers, but also for pedestrians in general.

Transformation potentials

I must restate, though, that I have dealt specifically with encounter system aspects of spatial performance in this paper. There is a reason for this: it is a dimension which is almost absolutely ignored in previous literature. But the evaluation of settlement form involves a number of other dimensions, and this means that we must not ignore the many qualities of the design of the Brazilian Capital, related to aspects which, yes, have been repeatedly and justly pointed out in literature. Changes in the configuration of the



Unplanned land-use by low-income inhabitants next to the central bus station, at the central axes of Brasília. Photo: Wessel de Jonge.

city which would minimise some of the problems referred to above would not necessarily jeopardise the aesthetic qualities of the city's design. As I have already stated elsewhere (Holanda 1998), the strong prejudices which exist against these changes have not considered carefully enough other examples of urban design around the world and along history, which have been successful in achieving the co-existence of both monumental and secular scales in the

design of cities and capitals. In the case of Brasília, there is a strange fear that the consideration of the ethic dimension may seriously damage the aesthetic dimension. On the contrary, I think it perfectly possible that we may have a city which is, at the same time, *good* and *beautiful*, both for its daily users, and for the distant traveller who comes once in a life time for its appreciation. Brasília, perhaps the greatest achievement of modern urban design, presents great potentials of transformation towards such goals. If this will be feasible at all, political and ideological constraints considered, is another matter.

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Notes:

1. See: De Holanda 1997a, 1997b, and 1999.
2. For a complete report see: De Holanda, 1997b.
3. E.g. Marques & Loureiro, 1998.
4. For a full report see: De Holanda 1997b.

Bibliography:

- Gonzalez, Suely, 'A renda do solo urbano: hipóteses de explicação de seu papel na evolução da cidade', in Ricardo Farret (org) (1985) *O espaço da cidade - contribuição à análise urbana*. Projeto, São Paulo 1985.
- Gräeff, E, *Cidade utopia*. Editora Vega SA / Editora da Universidade de São Paulo, Belo Horizonte 1979.
- Holanda, Frederico de, 'Typology of urban layouts - the case of Brasília', *Space Syntax First International Symposium - Proceedings*. London 1997a, pp. 08.01-08.15.
- Holanda, Frederico de, *Exceptional space*. Doctoral Thesis, presented to the Bartlett School of Graduate Studies, University College London, 1997b.
- Holanda, Frederico de, 'The morphology of Brasília: an evaluation', *Fifth International DOCOMOMO Conference - Proceedings*. Stockholm 1998.
- Holanda, Frederico de, 'Class footprints in the landscape', *Space Syntax - II International Symposium - Proceedings*. Brasília 1999, pp. 6.1-6.9.
- Holston, James, *A cidade modernista - Uma crítica de Brasília e sua utopia*. São Paulo 1997. Originally published by The University of Chicago Press, 1989, under the title *The modernist city - An anthropological critique of Brasília*.
- Machado, L.Z. & Magalhães, T.Q., 'Imagens do espaço: imagens de vida', in Paviani, A. (org), *Brasília, ideologia e realidade - espaço urbano em questão*. Projeto, São Paulo 1985.
- Marques, Sonia & Cláudia Loureiro, 'A moradia econômica: bonitinha, ordinária e barata', in *V Seminário de História da Cidade e do Urbanismo* [Electronic Proceedings]. Campinas, São Paulo 1998.
- Pedrosa, Mário, *Dos murais de Portinari aos espaços de Brasília*. Editora Perspectiva, São Paulo 1981.

Creating historic modern cities

By learning from modern historic cities

'O Novo Mundo já não é este lado do Atlântico, nem tampouco o outro lado do Pacífico. O Novo Mundo não está à esquerda nem à direita, mas em cima de nós; precisamos elevar o espírito para alcançá-lo, pois já não é uma questão de espaço, porém de tempo, de evolução e de maturidade. O Novo Mundo é agora a Nova Era, e cabe à inteligência retomar o seu comando.' Lúcio Costa, *Módulo* (1987) 93, 18.

'The New World is no longer restricted to this side of the Atlantic Ocean, or the other side of the Pacific. The New World does not lay to our left nor to our right, but can be found above us, we should lift our mind to reach it, as it is no longer a matter of space, but rather of time, of evolution and maturity. The New World is now the New Age, and it is up to the intellect to recover its command.' Lúcio Costa, *Módulo* (1987) 93, 18.

by Paul Meurs

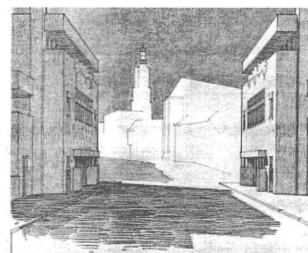


Rotterdam, design for the Coolingsingel boulevard with a new town hall and other public buildings, 1909.

Source: 'Doorbraak Jonker Fransstraat - Goudssche Singel - Coolvest; nieuwe beursbouw te Rotterdam', *Bouwkundig Weekblad* 33 (1913) 22, 263

Amersfoort, proposal to rebuild the 'Kamper-binnenpoort' in a modern style, G. Adriaans, 1922.

Source: Adriaans, G, 1923, 'De Kamper-binnenpoort te Amers-foort', *Bouwkundig Weekblad* 44 (1923) 9, 99.

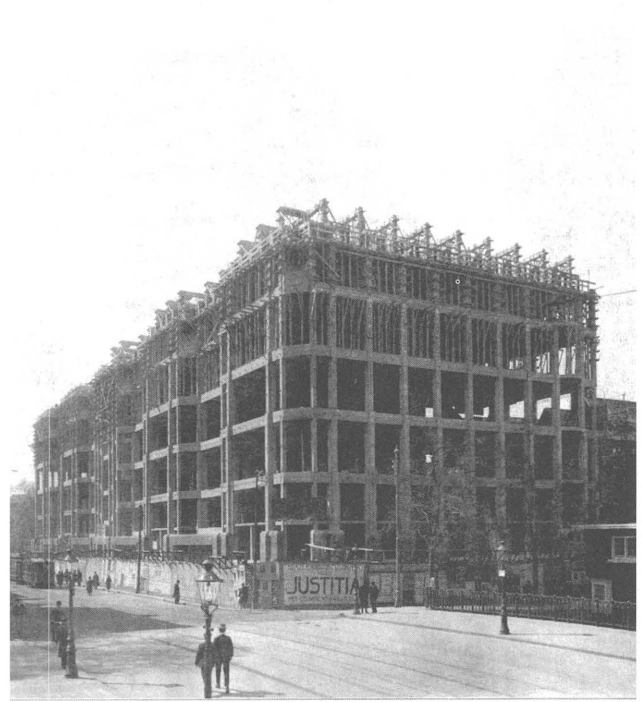


The New Age has arrived in the Netherlands. Globalization, mobility, individualization and virtual reality play an important role in contemporary daily life. Still, this part of the Old World does not just live the New Age alone. The ever stressed and hurrying Dutch also seek 'mental resting points', like landmarks and memory anchors. There is big public support for the preservation of monuments, historic towns, landscapes and nature reserves. Hundreds of private and public organizations with millions of members act in the field of nature and monument preservation. The popularity of these organizations is hard to match with that other national passion: the rush for economic growth and prosperity, manifest in large houses, big cars, wide speedways and an extensive leisure and service structure. In this context, the simultaneous desires for innovation and preservation cause tensions in the built environment. The fragile balance between rupture (longing for the new) and continuity (sticking to the old) is reflected in planning, thus drawing up the outlines of a past and a future in the cities.

How should the CIAM-based postwar neighbourhoods be treated in this respect? The tendency is to tear them all down and substitute them for new neighbourhoods with a stronger identity, human scale and personality. Instead of the traditional and moralistic discourse to (over-)estimate their artistic, historic and cultural value (it will take decades to



Amsterdam, Muntplein in the 1930s: a modern historic cityscape, containing of a medieval tower, a modern boulevard (K.P.C. de Bazel, 1916) and a new hotel (G. Rutgers, 1922).
Source: Wattjes, J.G., F.A. Warners, 1943, *Amsterdam bouwkunst en stadsschoon* 1306-1942, Amsterdam 1943, 133.



Amsterdam, construction work of 'De Nederlandsche Handel-Maatschappij', located within the 17th Century canal layout, K.P.C. de Bazel, 1916-1926.
Source: Kentie, Y.M.D., 1930, *Gewapend beton in het gebouw*, Amsterdam 1930, 5.

change the current public opinion), a better strategy to invert this tendency is to stress their potential to be transformed into areas full of identity, human scale and personality, as unique components of the postmodern network cities. In the past, a similar transformation took place in the inner cities. We can learn from this process, which took place from the late 19th Century onwards and was - surprise - conducted by modern architects and planners.

The quest for identity

The (re-)development of urban sites brings about a search for 'local identity'. Apparently, identity can be invented. What is actually meant with the term 'identity of the built environment' is hard to say, it is a feature that transforms 'space' into 'place': a unique setting in which people can feel at home. The challenge to create identity is biggest in anonymous peripheries, where monotonous residential areas, gray business districts, large urban development areas and small green areas can be found. Sometimes history provides a basis for the creation of a specific spatial layout, for instance when country estates, ancient defense lines or monumental infrastructure can direct and be incorporated into new urban plans. Landscape can also bring local identity into urban plans, although The Netherlands have little to offer in this respect: some lakes, bushes, open areas and canals. On sites that lack clearly defined and visible

physical features, identity has to be 'invented'. The new context can derive from new functions, as is the case in the surroundings of the XXL football stadium of Ajax in the periphery of Amsterdam. Other options are to create an artificial context with narrative urbanism (practiced in The Netherlands for instance by the urban planner Ashok Bhalotra) or to re-write history, a very popular planning tool that has already resulted in 21st Century castles with luxurious apartments and brand-new historic country estates filled with ordinary family homes. All the efforts to create an identity have one disadvantage: they often only lead to theatrical settings. The functions stay homogeneous, the use is monotonous and the mix of average citizens is the same as in any suburb anywhere else. Faked identities suggest an anchor, a superficial tie between resident and residence.

Historic cities

Faced with the challenge to create urban areas with an 'identity', one is tempted to consider the CIAM-based postwar urban extensions and the historic inner cities as bad and good examples respectively. The differences between them are considerable. The inner cities have numerous historic layers; they bear traces of centuries of human activity and feature a mix of functions. The urban fabric is compiled out of individual constructions into a continuous building mass in which the public space is left open. The human scale,

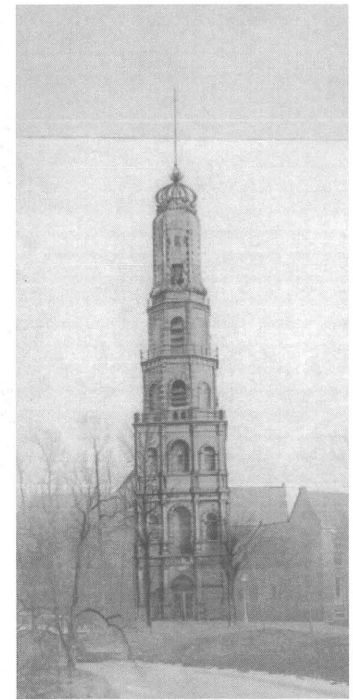


Amsterdam, 'De Joodsche Invalide', a large hospital visually integrated into the small scale of the canal district, J.F. Staal, 1935. Source: Wattjes, J.G., F.A. Warners, 1943, *Amsterdams bouwkunst en stadsschoon 1306-1942*, Amsterdam 1943, 317.

the spatial diversity and the picturesque appearance make up attractive environments for living, working and leisure. New buildings can be incorporated easily into the townscape, complementing the dominant context with either contemporary or historic forms. The tourist potential of the inner cities proves their well defined character, the pleasant atmosphere is a basis for an entire industry of tourism and leisure that has developed in the historic districts. Eventually the old towns have become the logotypes of the big modern cities that have developed around them; their visual identity is scaled up to large urban regions.

Postwar extensions

Postwar neighbourhoods lack, just like many older urban extensions, the historic layers of the inner cities. They have homogeneous economic profiles and spatial structures and offer a poor mix of functions. The townscape is built up out of large volumes that stand solitary in a continuous open space. Similar neighbourhoods are spread over around the country: if you have seen one, you have seen them all. The large scale and the monotony cause disorientation and add to unfriendly public spaces. Visitors are a rare species in these areas, they can be recognized by the detailed maps they carry around in order not to get lost. The future of these neighbourhoods, that were built in large numbers with small budgets, is now being discussed. Conceived as strongholds for a better world to come, many of these urban complexes barely made it to the year 2000. A large number of buildings urgently needs structural repairs and the apartments are considered too small. Besides, the housing stock of these neighbourhoods is too homogeneous to attend to the current demands and the use and maintenance of the vast public space has become problematic. The collective services and centers do not correspond to today's requirements of the individualistic and heterogeneous user profile and security seems to be hard to deal with. These and other factors make town planners and



IJsselstein, reconstructions of a largely destroyed church tower by M. de Klerk, 1923-1939. Source: Bock, M. (red.), 1997, Michel de Klerk, *bouwmeester en tekenaar van de Amsterdamse School*, 1884-1923, Rotterdam 1997, 282.

developers argue that reforms are necessary and in many cases that demolition is inevitable. In all the big cities a number of blocks has been erased already. The new Housing Act (2000) estimates that 500.000 dwellings of the postwar housing stock (equivalent to 7,5% of the country's total dwelling stock) will have to be substituted.

The modern city at age

If Dutch common sense would prevail, it would be acknowledged that the (anonymous) planners of the Middle Ages and the Golden Age (17th Century) would have been more capable to face the challenges of 21st Century urbanism than the planners of the 20th Century. But of course, it is all too simple to praise the inner cities with their mixed functions and the tiny urban fabric, and to condemn the urban extensions with their rigid separation of functions and the open urban layout. Is demolition the most likely future for modern towns and neighbourhoods? There are utilitarian, conceptual and historic arguments to plea for a careful examination of the opportunities to recycle modern town planning, rather than eliminating it on forehand. The utilitarian argument is simple: as long as existing structures can be partly or largely integrated into new solutions, a waste of material, energy and sometimes money can be prevented. New designs and architectonic, technical and typological solutions can bring up innovative architecture that adds value to the contemporary building production. The conceptual argument deals with the concern about these 'problematic' areas and the desire to substitute them by areas with more variety, identity and human scale. It seems to be controversial to erase the only historic layer of the urban extensions and start from scratch, subsequently trying to create in artificial ways new identities by faking a history that never was. The problem of the suburbs is not their concept, but rather their poor and homogeneous elaboration. Arming the existing urban fabric and the architectonic structures with new uses and users, mixing

functions, establishing new centers and public spaces and introducing new typologies can lead to genuine modern areas: modern in concept, updated in functions and enriched and matured over time.

The historic argument to reconsider the future of the extensive urban extensions from the 1950s and 1960s is not that they are unique, bare the memories of an important time and reflect important cultural values and architectural principles. They are all but unique, although some blocks and urban plans may have exceptional qualities. As we are talking large numbers and massive areas it seems to be mediocre and irrelevant to use qualifications of monument-worthiness.

The historic argument has nothing to do with the way modern architects faced the future of their work as well. They became known for stating that functional architecture without adequate functions should be demolished and that their creations should never be an exception to this. Nobody ever wondered if the architects of churches and palaces in the Middle Ages and later ever agreed with the transformation of their work in tourist attractions and pleasure domes. How the modern architects looked at the future is part of a contemporary discourse that has little to do with the actual debate on the city. *They* are not in charge with the planning in the 21st Century, but we are. If we valorize non-functional functionalism for other than purely utilitarian reasons, we have the full right to do so. The historic argument to cherish postwar neighbourhoods that is presented here is that we can learn from history how to transform and adapt 'problematic' urban areas for new uses, without losing their architectonic and urban features. In this respect we should not study how modern architects faced the future one hundred years ago, but how they faced the past.

Image

The inner cities that nowadays are considered amongst the most wanted living and working spaces, have little in common with the situation that existed there around the year 1900. A look at the ancient pictures reveals, that even Amsterdam was a dull town one day. The images transmit a provincial atmosphere and a narrow minded attitude. The variety of architecture, functions, scales and lifestyles that nowadays make up the charm and the image of the city were not existing by then. In that recent past, there was hardly any positive appreciation for historic towns. They were considered to be a source of diseases and a place of human decay. The smell of the polluted canals and the polluting industry must have been disgusting. Modern traffic jammed the old streets and the overcrowded residential areas were in need of demolition and reconstruction. From the end of the 19th Century onwards, sanitation engineers, architects and housing specialist all asked for radical interventions in the inner cities. Historians agreed, as long as the existing monuments and sites were not demolished accidentally.

The paintings of G.H. Breitner show the tremendous impact of the interventions in the old cities. The historic parts of Amsterdam and the other large cities in Holland faced profound reconstruction on behalf of traffic improvement,

substitution of functions, the creation of a modern city-core, building activities and monument preservation. Nevertheless, the old pictures and paintings of the old towns that were produced around 1900 can still easily be identified for anyone who is slightly familiar with today's situation in these towns. Except for the downtown of Rotterdam, which was largely destroyed during World War II, all the old towns in The Netherlands managed to retain their identity while they transformed into modern city centers.

Re-invention

The negative image of the Dutch inner cities one hundred years ago can be compared to the image of the postwar suburbs today. The subsequent question is obvious: can the decaying suburbs undergo a similar improvement of their image as the city centers experienced over the last Century? It is challenging to think of strategies to change these areas into consolidated ensembles which attract residents and investors. As for their size and homogeneous functional and spatial structures, it will be hard to stick rigidly to the existing form. In a gradual process of development, differentiation, densification, mixing of functions and renewal, these areas can gain a new spirit and an economic input, without losing their specific features. There is no need to pull down all the decaying blocks at once. If a part remains it offers cheap dwellings and may - sooner or later - open opportunities to accommodate programs that do not exist today, just like what happened with abandoned warehouses, schools and workers homes in the inner cities. As long as massive demolition prevails, we might get state of the art neighbourhoods with a very varied architecture and green structures, but with a one-dimensional soul, an identity of superficial forms. Of course it is unthinkable that the urban extensions can be transformed into historic inner cities. They have an open layout and a different scale, they are dimensioned to accommodate trains and cars, date from another era and will never contain the functions that are clustered in the traditional downtown.

Yet, a transformation process might take place that shows similarities to the transformation of the old towns in modern city centers over the last 100 years. Not the comparison of the historic center and the suburbs in terms of design or functional program is relevant, but rather the conceptual approach matters: a unprejudiced interpretation of the existing situation, development of new functional programs, the search for architectonic and urbanistic adaptations to new requirements and tendencies, as well as the creative process to bring a new spirit into areas with proper characteristics. Identities do not have to be invented, the modern city itself should be re-invented.

Paul Meurs is an architect and researcher in Rotterdam. This text is a preview of the epilogue of 'The modern historic city', a PhD thesis on the transformation of Dutch old towns into modern city-cores between 1883 and 1940 that will be defended at the Free University of Amsterdam and published by NAI Publishers in Rotterdam in the fall of 2000.

Ten points on an Urbanistic Methodology

In 1999, precedent has been broken to award the RIBA Royal Gold Medal to a city: to Barcelona, its government, its citizens and design professionals of all sorts. Oriol Bohigas, who, as an architect, served Barcelona City Council from various positions between 1979 and 1994, presented the following lecture at the occasion of the celebration of this award. The example of Barcelona as revealed through his text provides insights, and evidence of a collective inspiration. To be emulated wherever urban regeneration forms part of a political and social agenda shared by city authorities, business interests, designers and citizens.

by Oriol Bohigas

The decision to award the RIBA Royal Gold Medal to a whole city has been very important. Modern cities are not made by the architects, or the engineers, or the urbanists, or the geographers, or the economists, but by the body of the citizens, represented by their democratically elected politicians, who have previously set out in public their political idea of the city. On the basis of this criterion, I would like to develop in 10 points an urbanistic methodology, that which can be deduced from the political reality of Barcelona.

1. The city as a political phenomenon

The city is a political phenomenon, and as such it is loaded with ideology and with political praxis. It is the continuity of a common ideology and programmes by the three Socialist mayors - Serra, Maragall and Clos - and their collaborators that have made the coherent transformation of Barcelona possible.

2. The city as domain of the commonality

These political and urban ideas are based on a radical statement: the city is the indispensable physical domain for the modern development of a coherent commonality. It is not the place of the individual, but the place of the individuals who together make up a community. Very different from what a famous British politician said, that there was no such thing as 'community', only individuals and the State. It is the relation between individuals that constantly weaves the threads of ideas and expanding information. The city offers the fullest guarantees for this information, for access to the product of that information and for the putting into effect of any socio-political programme based on that information. There can be no civilisation without these three factors. The new voices of technology have recently tended to say that the traditional city is going to find itself replaced by a series of telematic networks, which will constitute a city without a site. This is an anthropological and ecological nonsense. It is a vision put forward by certain political ideas, which are opposed to giving priority to the collective and in favour of the privatisation of the public domain.

3. Tensions and chance as instruments of information

When I said that the city provides us with certain irreplaceable instruments of information I mean the enriching

presence of tensions and of chance. It is only with the potentially conflictive superimposition of singularities and differences and the unforeseen gifts of chance that progress can be made in the process of civilisation, with the move from the structure of the tribe to the civilising cohesion of the city.

The city is a centre of enriching conflicts which are only resolved in their affirmation as such or in the coexistence of other conflicts with different origins. It does seem to me that the great error made by the urbanism of the Athens Charter was the attempt to cancel out these conflicts. To eliminate them instead of resolving them with the recognition of other conflicts. Urban expressways, the 7V of Le Corbusier, functional zoning, directional centres, the great shopping areas: these have not served to resolve problems, but have instead destroyed the character and the function of many European cities.

4. The public space is the city

If we start out from the idea that the city is the physical domain for the modern development of the commonality, we have to accept that in physical terms the city is the conjunction of its public spaces. The public space is the city: here we have one of the basic principles of the urban theory of Barcelona's three Socialist mayors.

In order for the urban space to fulfil its allotted role it has to resolve two questions: identity and legibility.

5. Identity

The identity of a public space is tied up with the physical and social identity of its wider setting. However, this identification is bound by limits of scale that are normally smaller than those of the city as a whole. This being so, if authentic collective identities are to be maintained and created it is necessary to understand the city not as a global, unitary system but as a number of relatively autonomous small systems. In the case of the reconstruction of the existing city, these autonomous systems may coincide with the traditional neighbourhood make-up. I believe that this understanding of the city as the sum of its neighbourhoods or identifiable fragments has also been one of the basic criteria in the reconstruction of Barcelona, with all its political significance and with the creation of the corresponding decentralised administrative instruments.

However, we are dealing here not simply with the identity of

the neighbourhood, but with the particular representative identity of each fragment of the urban space; in other words, with the coherence of its form, its function, its image. The space of collective life must be not a residual space but a planned and meaningful space, designed in detail, to which the various public and private constructions must be subordinated. If this hierarchy is not established the city ceases to exist, as can be seen in so many suburbs and peripheral zones of European cities which have turned away from their urban values to become parodies of certain American or Asian cities.

6. Legibility

The designed form of the public space - that is, of the city - has to meet one other indispensable condition: to be easily readable, to be comprehensible. If this is not so, if the citizens do not have the sense of being carried along by spaces which communicate their identity and enable them to predict itineraries and convergences, the city loses a considerable part of its capacity in terms of information and accessibility. In other words, it ceases to be a stimulus to collective life.

In order to establish a comprehensible language it is necessary to reuse the semantics and the syntax that the citizen has already assimilated by means of the accumulation and superimposition of the terms of a traditional grammar. It is not a matter of simply reproducing the historical morphologies but of reinterpreting what is legible and anthropologically embodied in the street, the square, the garden, the monument, the city block, etc. No doubt with these ideas I will be accused by many supposedly innovative urbanists of being conservative, reactionary, antiquated. But I want to insist on the fact that the city has a language of its own which it is very difficult to escape. It is not a matter of reproducing Haussmann's boulevards, or the street grids of the nineteenth century, or baroque squares or the gardens of Le Nôtre. It is a matter of analysing, for example, what constitutes the centripetal values of these squares, what is the plurifunctional power of a street lined with shops, what are the dimensions that have permitted the establishment of the most frequent typologies. And it is a matter of being aware of how the abandoning of these canons results in the death of the city: the residual spaces of the periphery and the suburb, the vast shopping centres on the outskirts of the city, the urban expressways, the university campus at a considerable distance from the urban core, etc.

7. Architectural projects versus General Plans

All of the above considerations bring us to another very important conclusion, which Barcelona has managed to apply: the urbanistic instruments for the reconstruction and the extension of a city cannot be limited to normative and quantitative General Plans. It is necessary to go further in terms of what is required of the design. It is necessary to give concrete definition to the urban forms. In other words, instead of utilising the General Plans as the sufficient document, a series of one-off Urban Projects have to be imposed. It is a matter of replacing Urbanism with Architecture. It is necessary to design the public space - that is, the city - point by point, area by area, in architectural terms. The General Plan may

serve very well as a scheme of intentions but it will not be effective until it is the sum of these projects, plus the study of the large-scale general systems of the wider territory, plus the political definition of objectives and methods. During these last thirty years General Plans have justified all over Europe the dissolution of the city, its lack of physical and social continuity, its fragmentation into ghettos, and have paved the way for criminal speculation in non-development land. And they have, in addition, counterfeited a spirit of popular participation, whose criteria cannot logically be extended beyond the local neighbourhood dimension and beyond a comprehensible time span.

8. The continuity of the centralities

The controlling of the city on the basis of a series of urban projects rather than unformalised General Plans makes it possible to give a continuity to the urban character, the continuity of relative centralities. This is one way of overcoming the acute social differences between historic centre and periphery.

I am aware that in these last few years many voices have spoken out in defence of the diffuse, informalised city of the peripheries as the desirable and foreseeable future of the modern city. The *ville éclatée*, the *terrain vague*. This position seems to me to be extremely mistaken.

The peripheries have not been built to satisfy the wishes of the users. They have appeared for two reasons, which correspond to the interests of the capital invested in public or private development and to conservative policy: to exploit through speculation the value of plots that were outside of the area scheduled for development, and to segregate from the main body of the community those social groups and activities regarded as problematic by the dominant classes. The urbanists who uphold the model of the periphery seem not to realise that all they are doing is putting themselves on the side of the market speculators, without adding any kind of ethical consideration. As certain neo-liberal politicians say, the market takes over from policy, without considering the economic and social damage suffered by the periphery and even by the suburb. In other words, without culture, without politics.

9. Architectural quality: between service and revolutionary prophecy

No urbanistic proposal will make any kind of sense if it does not rest on architectural quality. This is a difficult issue. If the city and architecture are to be at the service of society, they need to be accepted and understood by society. But if architecture is an art, a cultural effort, it must be an act of innovation towards the future, in opposition to established customs. Good architecture cannot avoid being a prophecy, in conflict with actuality. On the one hand actual service in the here and now and on the other hand anti-establishment prophecy: this is the difficult dilemma which good architecture has to resolve.

10. Architecture as a project for the city

I do not want to conclude without referring to another architectural problem. It is evident that these days there is a great split in the diversity of architectural output. On the one

hand there is the tightly rationed production of the great architects, which is published in the magazines and shown in the exhibitions. On the other hand there is the superabundance of real architecture, that which is constructed in our horrible suburbs, along our holiday coasts, on the edges of our motorways, in our shopping centres. A very bad architecture, the worst in history, which destroys cities and landscapes.

There are many reasons, which serve to explain this phenomenon, but the most evident ones are the typological peculiarity of the great projects and the commercialisation of vulgar architecture. The great Ivory Tower projects are no longer capable of putting forward methodological and stylistic models, and as a result the majority of vulgar architecture cannot even resort to the mannered copy.

Clearly we are not in any condition today to call for the creation of academic models, as has occurred in the history of all styles. Perhaps the only possibility open to us is that of establishing a rule that is more methodological than stylistic: that architecture should be primordially a consequence of the form of the city and of the landscape and should participate in the new configuration of these. This would be a good instrument for a new order, in opposition to the self-satisfied lucubrations of good architecture and the lack of culture of vulgar architecture.

I began by saying that the city must be an architectural project and I have ended by saying that the solution to the present problems of architecture may be to design it as part of the city.

Conclusion

My intention was to give a simple informal speech of thanks for the medal. But I see that it has come out too academic and, as a result, boring and pedantic. And perhaps futile, too: I am afraid I have spoken of principles that are too simple and too familiar for such an important audience from the Olympus of the British architectural profession. Please forgive me. I could not resist the temptation of underlining these ten successive and interlinked programmatic points, as a consequence of the initial fact of Barcelona's political approach to urbanism. If our mayors had been Thatcherites, the city today would be very different. These points and their methodological coherence would not have been possible without the political lines marked out by our three Socialist mayors, Serra, Maragall and Clos. The credit is theirs, and it is they who deserve our thanks.

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How does the bolt get into the concrete?

Fixing in the frame; from Bauhaus to Bangladesh

'The history of the development of architecture showed that changes in building forms are related to the development of technical resources' (Gropius, 1925).

'Throughout history the general appearance of buildings and their style of ornament have been determined by the knowledge of building techniques available, as well as by the materials used and the tools with which they were worked.....' (Richards, 1940).

By James Lewis

The history of the Modern Movement in architecture has understandably had more to do with innovatory design of finished buildings than with techniques of their construction. There exists a gap in construction history that when filled, might be of historical interest, as well as being a possible source of practical help to emergent and necessarily non-traditional construction on remote sites in some developing countries.

Occasionally, missions in Bangladesh, for example, have induced flashbacks of time. Usually personal, these have been triggered by sights, sounds and smells such as of steam engines and, more oddly, of celebratory anti-aircraft gunfire. The effect of these chance but evocative experiences has

been to 'transport' back to childhood places, holiday travels and war time.

Visits to and travel within Bangladesh for participation in the design of reinforced concrete cyclone-shelters, has been the most recent context for these experiences; and construction project preparation itself suggested practical reasons for historical inquiry. Proposed coastal construction of probably two thousand reinforced concrete dual-purpose buildings, raised above storm-surge levels and resistant in their primary structure and fixings of secondary elements to storm-surge flooding and cyclonic winds, exposed issues to do with the quality of reinforced concrete construction on remote rural sites without electric power. In particular, how were crucial



Cyclone-resistant concrete structures in Bangladesh. Photo: James Lewis.

1903	Apartment house rue de Franklin, Paris 'first example of rc frame construction'	France	Auguste Perret
1910	Steiner House, Vienna (concrete?)	Austria	Adolf Loos
1914	First power drill patented	USA	Black & Decker
1916	Production of power drills	USA	Black & Decker
1923	Power drills developed	USA	Black & Decker
1923	La Roche-Jeanneret, Paris	France	Le Corbusier
1923	Empire Stadium, London	UK	Simpson & Ayrton with Owen Williams
1925	First overseas subsidiary	UK (not Europe)	Black & Decker
1925	Shredded Wheat Factory	UK	Trussed Concrete & Steel Company (USA)
1925-1926	The Bauhaus, Dessau	Germany	Water Gropius
1927	Villa Stein, Garches	France	Le Corbusier
1927	Weissenhofsiedlung at the Werkbund Exhibition, Stuttgart: 'apotheosis of the new functionalism'	Germany	Mies van de Rohe (eg)
1927	CIAM founded, Paris	France	
1928	First European power tools	Germany	Robert Bosch
1929-1931	Villa Savoie, Poissy	France	Le Corbusier
1932	Hammer drill	USA	Black & Decker
1932	Boots Factory, Nottingham	UK	Owen Williams
1932	Daily Express, London	UK	Owen Williams
1932	High Cross, Dartington	UK	William Lescaze
1932-1933	Gorilla Building, London Zoo	UK	Tecton
1933	Maison Suisse, Cite Universitaire, Paris	France	Le Corbusier
1933	MARS Group founded, London	UK	
1933	Private house, Didea Park	UK	Tecton
1933	Private house, Bognor	UK	Tecton
1933-1935	Highpoint, London	UK	Tecton
1933-1936	Two houses, Whipsnade	UK	Tecton
1936	The Pavilion, Bexhill (welded steel frame)	UK	Mendelsohn & Chermayeff
1936-1939	Peter Jones Store, Sloane Square, London	UK	William Crabtree

Chronology table.

Drawing: James Lewis.

cyclone resistant fixings into concrete to be achieved for door and window frame components?

The problem is simply overcome in Bangladesh, by the use of portable generators of one kind or another, and the contractual specification of technical kits with which contractors were to equip themselves (raising further problems of storage, security, maintenance and fuel supplies, and suggesting the use of solar powered tools). The question remains however, of how these problems were overcome by the first builders of reinforced concrete buildings?

Electric power tools and modern building

It can be assumed that electric power would have been available for the construction of the earliest European buildings using reinforced concrete, but to what extent were there equipment and tools powered by electricity? If there were power tools, what were they used for, and how much did their use influence building design and construction methods? Perhaps more realistically, did their absence contribute to a necessary and corresponding absence of structural innovation?

Black & Decker's first power drill in the USA was patented in

1910 (Black & Decker, 1991), but it was 1928 before the first power drill was introduced in Europe by Robert Bosch (Bosch, 1994). This first introduction of power drills therefore came after the earliest European examples of reinforced concrete building construction, such as that 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) (Pevsner, 1960; see table). The history of concrete and reinforced concrete construction commenced in the early 19th Century, and included works of civil engineering, commercial structures, and domestic building in France and in the United Kingdom. Reinforced concrete construction was being used by the time of the early 1900s, for both large and small buildings and civil engineering work (Stanley, 1986). Sources do not provide information on fixing techniques for secondary elements.

Buildings' dates are usually of their completion, but even after power tools had become available, how long was it before their use had become common practice? The



The Bauhaus Dessau curtain wall after the 1976 refurbishment.

Photo: unknown.

Weissenhofsiedlung at the 1927 Stuttgart Werkbund Exhibition, focused on the new reinforced concrete architecture. How much had the use of power tools contributed to this early peak of new design and construction?

Other reinforced concrete buildings that have come to epitomise the European Modern Movement as we now know it are, for example, the Villa Savoye (1929/31), the Daily Express buildings in London and Manchester and Boots factory (1932), Tecton's work culminating in Highpoint (1933/35) and the Peter Jones building (1936/39). East European examples are now being researched and visited (eg. Sharp, 1996).

Non-portable electric drill machines were in common industrial use in Germany at least at the end of World War 1 (1918; Kuhn, 1995), but the question remains as to whether such machines were used in reinforced concrete construction. Without such machines, the Rawlplug 'star drill' (a hand-held round steel 'chisel' with an 'x' shaped end) was used to hammer holes into concrete (as it had been for stone) into which a plug (of pine) was rammed for fixings. The fixing of bolts into reinforced concrete after its hardening, with the

Rawlplug star drill or other tool, was a laborious and time consuming task - even though concrete is likely to have been of a lesser density and quality than it is nowadays.

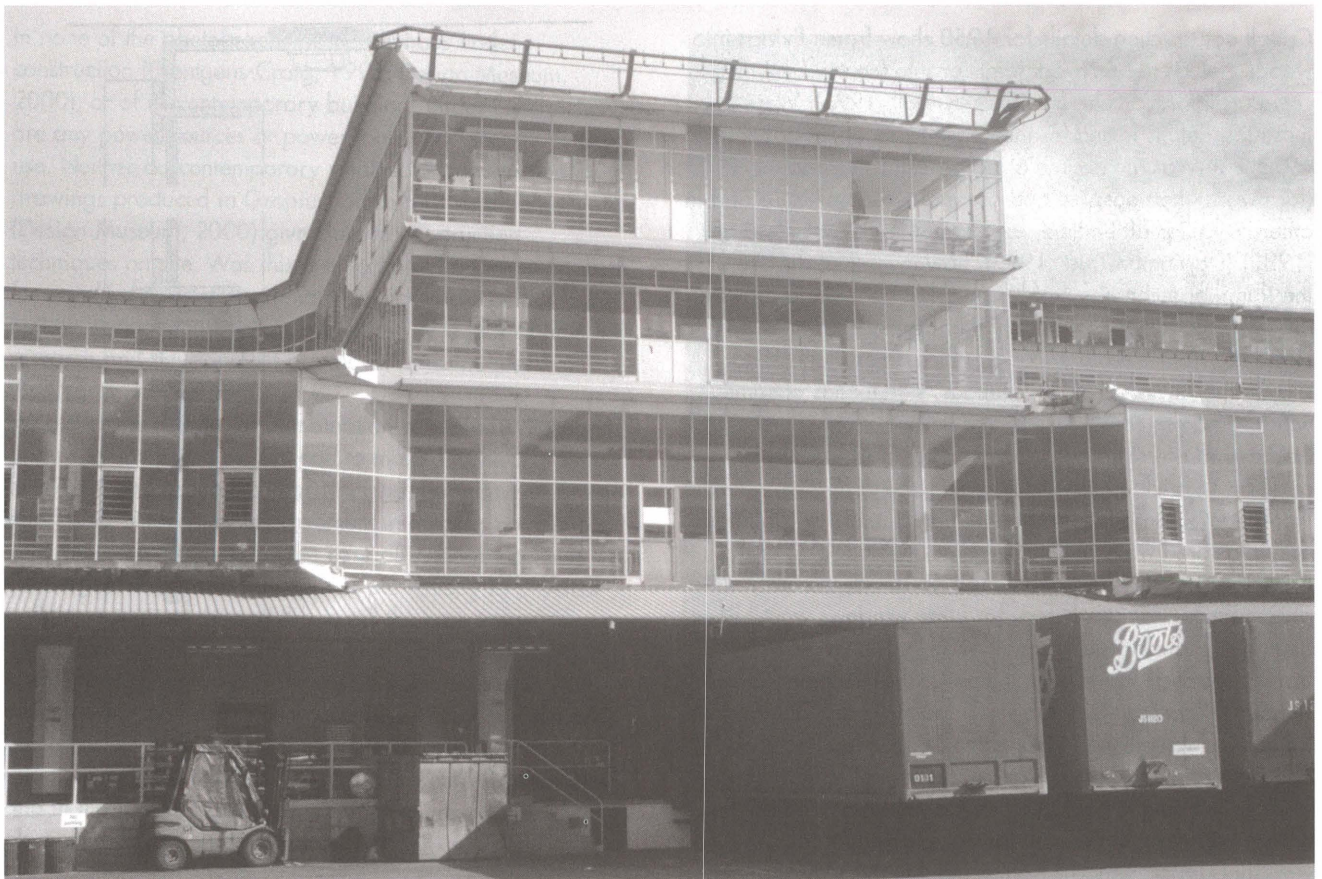
The casting into concrete of fixing blocks or threaded lugs came to be practiced but required considerable accuracy in fixing, and care in pouring, ramming and vibrating (first used in 1917 in France: Stanley, 1979) of concrete. In the Boots building, short lengths of internally threaded galvanized pipe were set into the concrete frame before casting (AMEC, 1995) - the forerunner of present day fixing devices (eg. Halfen-Unistrut, 1994 & Rawlplug, 1995).

The Bauhaus

The Bauhaus buildings at Dessau are surely the best documented of all early modern architecture. In spite of this however, there is a dearth of information on their construction, as distinct from the wealth of available references on their design, function, occupants, activities, output, and cultural, social and political consequences, for example (eg. Royal Academy of Arts, 1968; Droste, 1993) or the biography of Walter Gropius (Isaacs, 1983). Of all of these publications in English, the only one to include



Inside view of Boots' curtain wall. Photo: Wessel de Jonge.



Original facade section at the Boots Factory, Nottingham. Photo: Wessel de Jonge.

significant details of design/construction is that of Sharp, 1993 (see illustration p. 48).

Even in a major publication that focuses on the design and history of the Bauhaus building itself (Kentgens-Craig, 1998a), information about its construction is incidental. There are however, photographs of the buildings during construction (p7; similar to those displayed at the Bauhaus Dessau exhibition: Design Museum, 2000), and chapters on the building's renovation and conservation commenced in 1976. It is evident that 'It is only now.....that the history of the building's construction is being written' (Burkhardt, 1998).

Innovation

Though the Bauhaus 'suffered particularly' (Paul, 1998), it essentially survived 1945 World War II bomb blast (photographs: Design Museum 2000) during air raids in which Gropius' house was destroyed. It became evident as restoration work commenced that: 'The building was a fragile structure from the outset, susceptible to weather and other impositions. Not least responsible for this was the architect's decision to realise his formal and aesthetic visions with 19th century building methods and materials, thus exposing himself to risks in terms of building technology. The building's history is full of damage, repairs, modifications and remodeling' (Kentgens-Craig, 1998b).

This observation is taken further in the book's chapter by Burkhardt: 'If we consider the Bauhaus..... there are relatively few structural innovations or experiments. It is a

logical example of the application of then familiar technologies..... The main structure, a reinforced concrete skeleton, is constructed of site-mixed concrete, filled with brickwork..... It is still not clear why Gropius, after by no means satisfactory experience in terms of building physics with large areas of single-glazed windows in his building at Alfeld (the Fagus factory)..... decided to go ahead with a curtain facade without any improvements at Dessau..... With the exception of photographs taken during building and incomplete tender documents there is very little source material relating to construction and execution' (Burkhardt, 1998).

Did the use of 'familiar technologies' encourage or inhibit structural and design innovation? No matter, there is no indication here of new techniques or of new equipment and tools for their implementation. Needless to say, innovation in design, if not in construction, was the Bauhaus *raison d'être*, but it is next to impossible to find out from (English) references what familiar technologies were used to achieve fixings of frames into concrete. Are references to 'a curtain facade without any improvements' in Gropius' use of large window areas, a matter of down draft or of fixing problems - or of both?

Fixings

Crittall steel windows were used in the Bauhaus (Fawcett, 1994), but the beauty of the details we now revere (Sharp, 1993 see illustration) relies upon fixings into concrete but denies the question of how the bolts got into the concrete.

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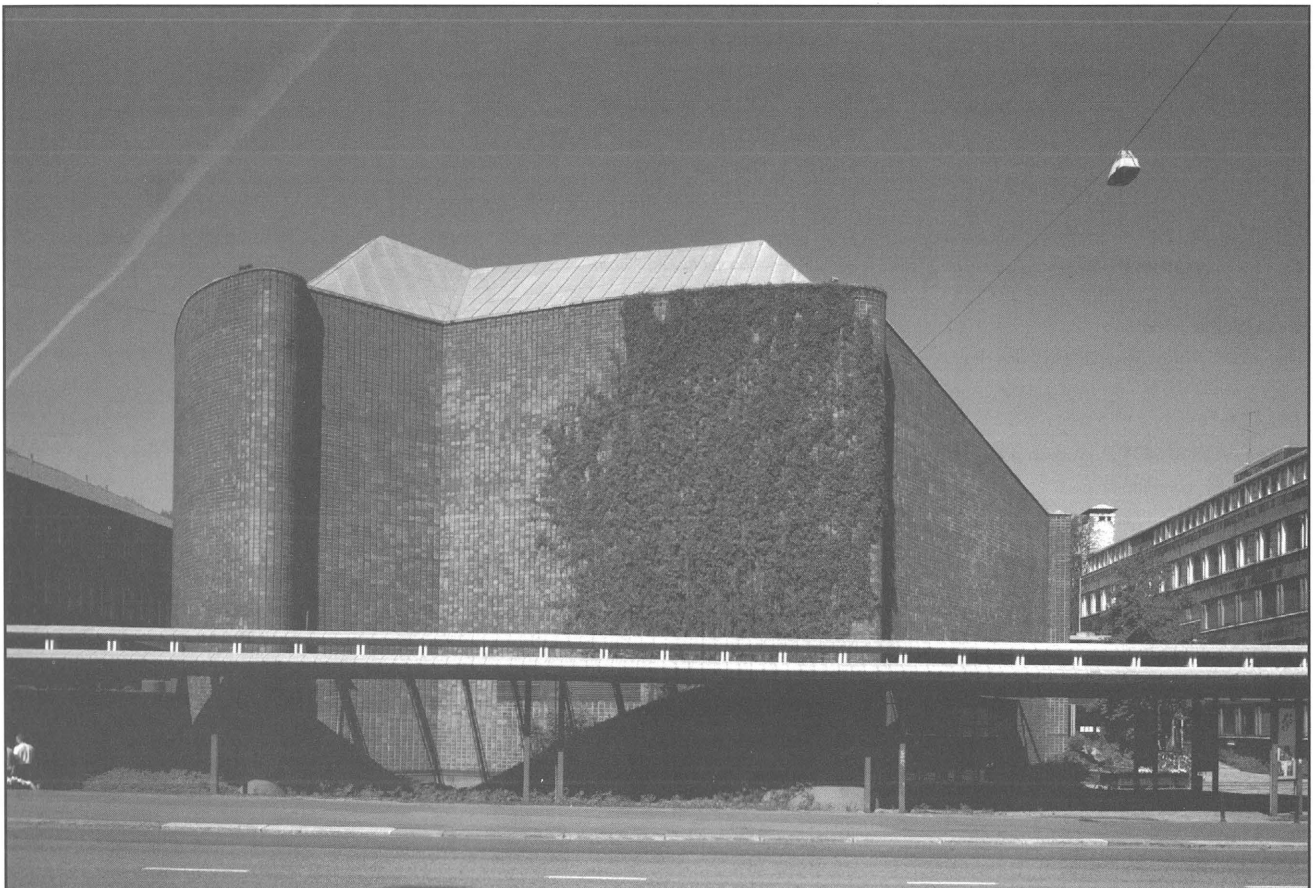
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ISSN: 1380-3204