# Architecture of the Sixties – A Short Introduction

by Bernhard Furrer

Despite the relatively small amount of time that has passed since its construction, the architecture of the Sixties has to be considered as 'historical' and the important architectural works of this period must be carefully recorded and treated as monuments.
Still, there are only few well-founded theoretical works dealing with this period. The following remarks are informed by direct and personal experiences with buildings constructed during the 1960's and their restoration.

**1. An essential basis:**
**The Modern Movement of the Thirties**

Any student of architecture is familiar with the "Modern Movement", a radically new architecture developed in the Twenties and Thirties. Even to the general public, the 'Bauhaus style' is widely recognisable; for instance, the Weissenhof Housing Estate is generally known. In a time that was felt to be marked by revolutionary changes, this architecture searched for a modern way of living. It should help to create a new society. Perhaps the most important new element of this period and expressed in architecture was speed, increasing speed.

Architecture should become transparent and the separation between inside and outside should be overcome. Thus, inside should be strongly connected with the outside. In apartments these aims led to very large openings and to new forms of outside space in accordance with the slogan "light, air and sun". Interior organisation and space became bigger and more complex, free movement therein was considered important. The architectural design became more sober and reduced. The new concepts were also adopted for working areas such as office and industrial buildings. Furthermore, they would have an influence at the scale of the city, giving new directions to city planning; the idea of a clear separation of areas for living, for working and for recreation and traffic connecting them became essential.

The revolutionary ideas of architectural design were made possible by new construction techniques, especially new applications of concrete. Furthermore, rationalisation and mechanisation of construction were looked for. In those years, they were only partly realisable and only in few experiments as the 'Stahlhaus' in Dessau they were really adopted.
With regard to form, the Modern Movement made a break with traditional architecture. Generally speaking, architects began to search for pure, stereometric forms, such as cubes or prisms. The flat roof played an important role in the realisation of these new abstract formal ideals and became a symbol of the new architecture.

It is important, however, to remember, that the background is an idea, a philosophy, and in a certain sense a utopian ideal; it would lead to a very lively architecture of experimentation. The rational ideas about modern life found form in clear volumes. Of course, this period of experimentation was not without its failures. Many aspects were exaggerated or, on the other hand, not taken into consideration, certain constructions failed and maintenance was difficult.

Exponents of the new tendency assembled at the 'Congrès International de l'Architecture Moderne' (International Congress of Modern Architecture) that met for the first time in the castle of La Sarraz, in the French speaking part of Switzerland. These congresses would become an important opportunity to exchange ideas and develop new strategies.

It should not be forgotten, that the architecture of the Modern Movement made only a small contribution to the overall architectural production during this period. Before the Second World War, the majority of the built environment came from the overcome tendencies of architecture and 'traditional architecture' was held in high esteem by the general public and architects. In terms of architectural merit, this traditional architecture has not less qualities than its modern equivalent – it is not 'minor'. Many architects, who had been educated in 'traditional architecture' knew of the new tendencies and in part admired them, but refused to follow the new principles entirely. This resulted in the creation of many forms that are somewhere between 'traditional' and 'modern'.

*1. Stuttgart, Weissenhof Housing Estate, 1927*

*4. Traditional forms remain the overwhelmingly used architectural style before World War II*

*2. The 'Stahlhaus' near Törten estate in Dessau. Georg Muche, Richard Paulick, 1926/27*

*3. The participants of the first 'Congrès de l'Architecture Moderne', 1928*

**2. Architecture during and after World War II**

During World War II civil building decreased, and almost stopped entirely during the second half of those difficult years. However, the architectonic debate continued. Architects sought to bring together the emotional qualities inherent in traditional architecture and the evolution in architecture with its new qualities such as rationalism, modern construction methods, and clear, definite forms of buildings. The war didn't provoke a complete break - numerous professional relations lead to a certain continuity.

The architecture of the Forties and Fifties is an amalgam. It combines rooms flooded with daylight, flowing interior spaces and modern construction systems brought together with highly decorative qualities and unspectacular, but high-end detailing, so creating a very bright and cheerful atmosphere. In many examples of this period as for instance the Convention Hall in Zurich there is no contradiction between 'modern' and 'traditional'.

After the War there was a huge need for the replacement of destroyed buildings in all European Countries. It was necessary to build quickly and on a vast scale. Especially, tremendous efforts were necessary to resolve the problem of housing. Because of extensive demolitions due to new concepts in city planning, such as the idea of the 'Town Adapted to Motor-Vehicle-Traffic', in many towns the problem increased considerably.

The example of the 'reconstruction' of the town of Le Havre shows that many of the newly conceived and built towns were distant from both 'traditional' Architecture and the White Cubes. The important features are the urban space, the highly structured buildings and facades, the repetition of elements although introducing rhythmic elements, and the beginnings of pre-fabrication.

In the first decade after World War II, the architecture of Europe was significantly influenced by ideas from two countries, which were not directly involved in the war, Sweden and Switzerland. Young architects made study trips and visited the itinerating exhibitions about new architecture of these countries, and read the several publications documenting the work of Swiss and Swedish architects, which had a great influence.

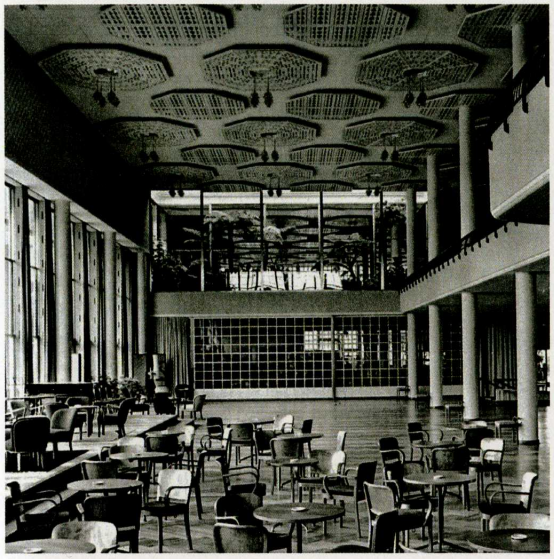
Many factors, such as the need for quick building, lack of money, limitations in the availability of material were greatly limiting for the architects. Nevertheless, there are many examples of post-war-architecture that are spatially rich with a poetic character. Important considerations were the research for weightlessness and transparency that can be felt in many buildings of the Fifties and Sixties and can be exemplarily seen in the Munich House of Justice.

In certain cases, the work of the post-war period neglects open spaces. Partially, they were badly defined, and consequently fell into disrepair due to being mistreated by users. However, in other cases as in the well known "Lijnbaan" of Rotterdam, new forms of public space developed at this time and are still highly appreciated today.

**3. Characteristics of the Architecture of the Fifties and Early Sixties**

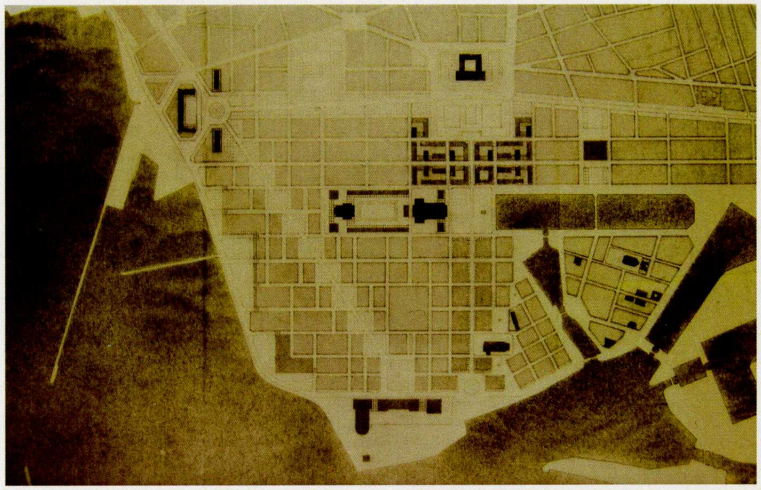
Good architecture of that period aimed for unspectacular and somehow 'normal' results. There are no exciting breaks with tradition, there is no attempt to be considered extraordinary and there are no formal declarations and demonstrations. This may be one reason why generally the works of the period has been long underestimated by architectural historians and the public.

It is most interesting to observe the evolution of the work of individual architects. To understand their works one must know where they come from and understand what influenced their design. Doubtlessly, the marking model is the Modern Movement with its achievements that, however, in the following decade were not just adopted, but criticised and partly abandoned. The main direction was the conviction of an evolution: "From Modern Movement to Modern Architecture".



5a+b. Convention Hall in Zurich. Max Ernst Haefeli, Werner Max Moser, Rudolf Steiger, 1937-39.

6. Le Havre, Plan for the Reconstruction. Auguste Perret, 1945-55



7. Munich, House of Justice. Sep Ruf, 1957-

*8. Shopping area of "Lijnbaan" in Rotterdam. Van den Broek and Bakema, 1952*

In the work of the Fifties and early Sixties, it is possible to detect some traits that can be observed generally in the works of good architects. It is possible to discern in what extent such properties are due to the principles of the Modern Movement and where they contradict it. The principles enounced here after are exemplified with the power station of Birsfelden in the river Rhine beside Basel.

*Division of the Built Volume into Singular Bodies.* Normally, the program of a bigger complex contains rooms for different activities. The aim was no longer to combine those activities in one building, but to give an appropriate expression to each function. Often a series of buildings, each housing one specific activity can be observed, separate buildings that thus express precisely their use. In many cases, the design of several separate buildings leads to a connection between them with covered, open gangways eventually glazed on one side.

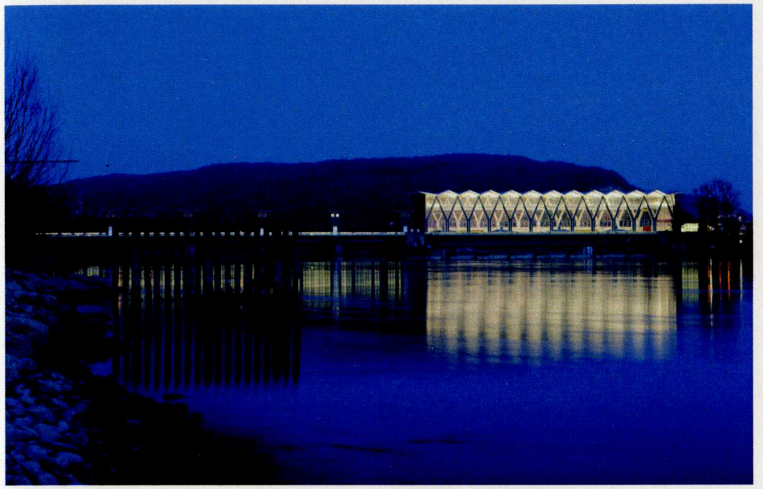
*Arrangement of the Volumes in a Free Way.* Those multiple buildings on a plot were not arranged in a strict, orthogonal manner, following a clear geometrical grid. They were arranged freely and permitted open space to flow freely. Often small shifts in their alignment are introduced, which in some cases are not easily discernable, but rather to be felt. Mostly the buildings follow natural elements as boards of forests, rivers or the contours of the land.

*Big Openings, Mastered by Structure.* In relation to the closed parts of the façades the glazed parts are important. Great importance is placed on the positioning of the openings in relation to the function of the building or the single rooms. Architects try to insert the openings precisely into the structure of the façade.

*Transparency, through the Building and within the Building.* The buildings were not conceived as closed blocks with openings but great importance was placed on the facilitation of views through. So, new buildings would offer a transparency, allowing the possibility to look through large openings to the interior space and vice versa to the situation beyond. Transparency would be permitted by openings on two opposite sides or in diagonal would. It was also central to the design and organisation of the interior, with views between flowing spaces.

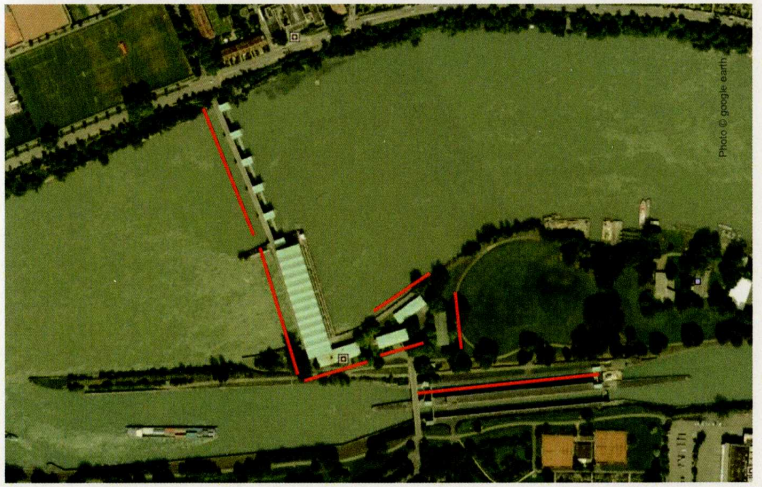
*Weightnessless, through Frame Construction, Pilotis or "Flying Roofs".* The physical weight of any construction should be indiscernible as far as possible. Several elements are used in that direction. Frame constructions permit a sense of 'weightlessness' and the use of 'light' materials as glass or wood for the façades. The building body can be put on pilotis leaving the ground floor open, an element best known since the Modern Movement. Very characteristic are the largely overhanging flat roofs; visually they are often detached from the building with intermediate grooves and with considerable constructive efforts the edges are presented as slim as possible.

*Tension between Symmetry and Broken Symmetry.* In many cases buildings seem to be ruled by symmetry. But it is intentionally broken through either a slight shift in the line of symmetry, by having an unequal number of lateral axes, by a variation of the window-openings or by introducing two different manners of lateral endings.

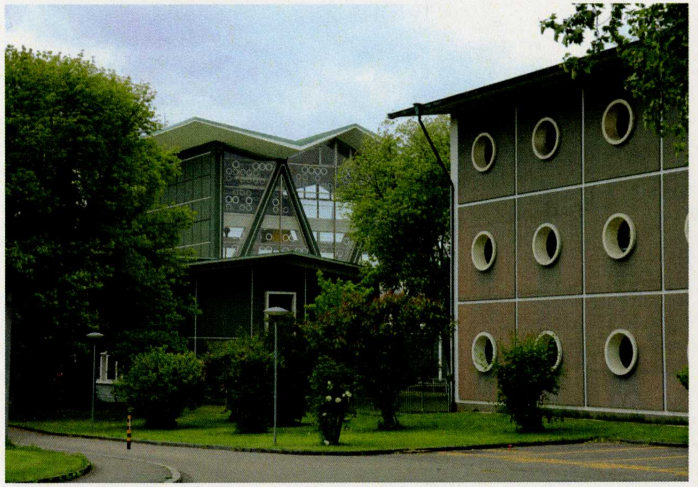


9a.The power station of Birsfelden. Hans Hofmann, 1953/54

9d. Big Openings, Mastered by Structure

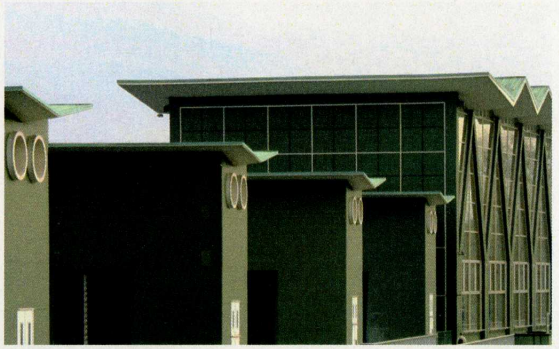



9c. Arrangement of the Volumes in a Free Way



9b. Division of the Built Volume into Singular Bodies

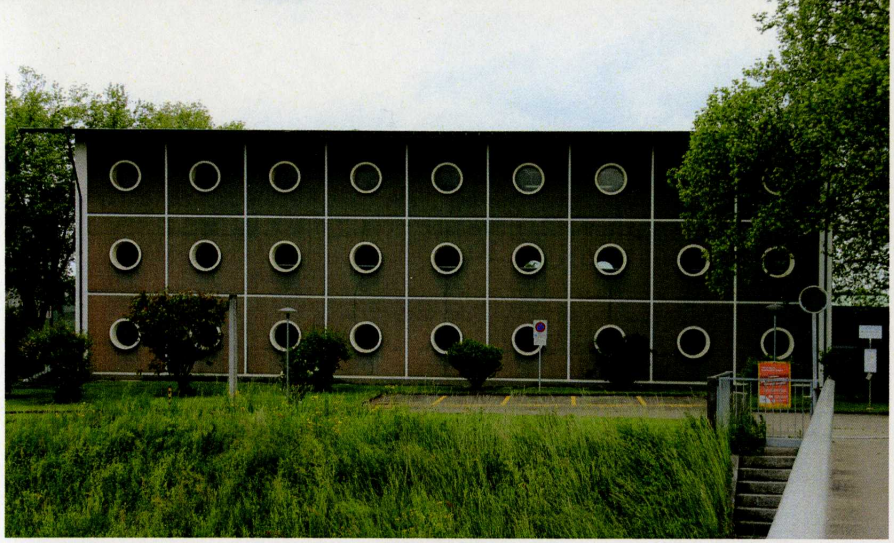
*9e. Transparency, through the Building and within the Building*



*9f. Weightnessless, through Frame Construction, Pilotis or "Flying Roofs"*

*9g. Tension between Symmetry and Broken Symmetry.*

*9h. Dynamically Moved Stairs*



9i. *Visible Construction combined with Decorative Elements*

9k. *"Disembodiment"*

9l. *Austerity of Materials*

9m. *Highly Differentiated External Spaces*

Dynamically Moved Stairs. Together with the engineers who were working with new methods for construction and calculation, the architects of that period invented marvellous stairs, ascending in curves and without intermediate support from floor to floor. Also for these elements, the impression of weightlessness is essential: it is achieved by limiting the bearing elements to the core of the construction with slim elements on the sides and using by elegant, often glazed guardrails.

*Visible Construction combined with Decorative Elements.* Architects looked for a clearly visible constructive structure that would respond to a rational building system that resulted in sober forms. However, they were not afraid to add decorative elements to those structures.

*"Disembodiment".* In many cases, the building body, the closed volume should be negated. Many measures can help to give this impression: Big cantilevers in order to create shadow on the façade, largely glazed outer surfaces, slim profiles for frames, transition between inside and outside without steps or frames.

*Austerity of Materials.* Of course, in the decennia's after the war materials were expensive and choice was limited. But these restrictions can't fully explain the limitation of the chosen materials. Architects try to use a very restricted palette: concrete, plastered masonry, wood, glass.

*Highly Differentiated External Spaces.* The surroundings of the buildings are considered highly important. Specialised professionals design it in close cooperation with the architects. The outdoor spaces are in close relationship with the building and its use; they are highly differentiated.

**International Functionalism**

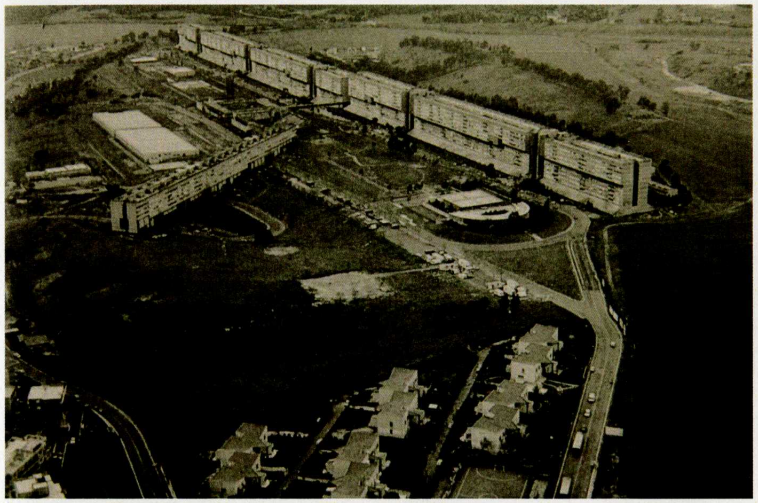
The expression 'Architecture of the Sixties' means a period and the general conditions of the formation of architecture; it doesn't mean a precise year of building. So architecture from 1955 to 1975 can make part of the period. It is marked by an enthusiastic belief in the future of the entire society.

All over Europe an international Style was introduced; it is also called International Rationalism. It tried to continue some of the intentions of the Modern Movement. However, in many cases the impetus had faded and the approach lacked conviction. On the other hand, technically, the architectural intentions could be realised more easily.

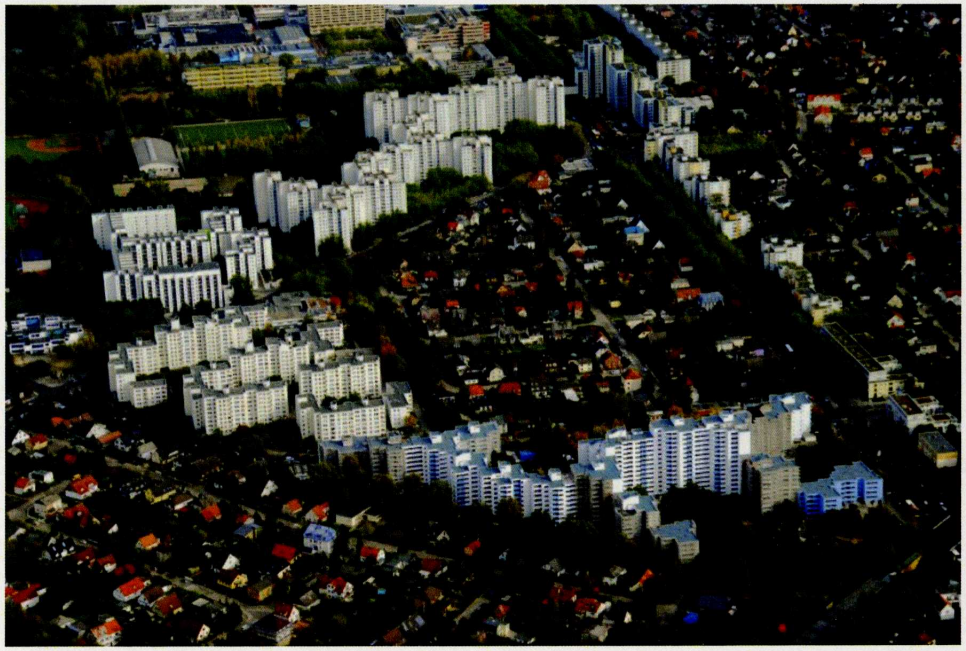
In architecture enormously huge projects are realised; the length of units can reach one kilometre as in the Housing Complex of Corviale or in Le Lignon in Geneva. An important topic is 'density'. It can be decerned in dwellings, in single buildings, but also in all sorts of centres for churches, schools or municipalities.

In many aspects, International Functionalism is based on similar interests and the aforementioned rules as they were in use in the Fifties or around 1960. With modifications or important changes they can be observed in many buildings of the Sixties. However, the atmosphere of the immediate post-war-architecture with its lightness, buoyancy and looseness changed into massive, strictly geometrical bodies. Architecture became the image of the predominant idea of growth - growth at any price.

The aim was to create an international expression. Buildings were to be 'universal' and thus have an expression without any direct relationship to the regional architecture. As for example in the Housing complex "MärkischesViertel" in Berlin, soberness was looked for, architects aspired for a reduced aesthetic and any decorative elements were avoided. In good examples that can create charming aesthetics, simple, ordered and flexible. In bad examples it leads to monotonous and boring repellent solutions. Generally, the dimensions become bigger. In many cases volumes are repetitive, within one unit or from one unit to others.



*10. Rome, Housing Complex Corviale. Mario Fiorentino, 1972-81*



*11. Berlin, Housing complex "Märkisches Viertel". Hans C. Müller, Georg Heinrichs, Werner Düttmann, 1962*

After decennia of experimentation, finally highly rationalised building systems could be introduced. They bring real seriality and rationalisation. They force architects to work with repetitions and with modules. Of course they don't allow any more fine differentiations and can lead to monotonous solutions. Façades often become plane surfaces, envelopes like skins. They have no relief that could create deepness and shadows and comprise space.
Generally, in their arrangement, buildings are not space-creating, but space-consuming. In consequence of that fundamental characteristic, external spaces are often neglected. They are merely the remaining ground and are not really useful as meeting-points for inhabitants.

In the whole of Europe enormous housing projects were realised in the areas around big cities. From the urban complex to the individual buildings they have spectacular dimensions. Often such estates have been reduced to undifferentiated simple bodies and only partly they offer spatial and tectonic qualities. In many cases after some years they lead to great social problems. Nevertheless all over Europe there are good examples from excellent architects (for instance, it could be remembered the often forgotten person of Fernand Pouillon ), highly interesting spatial inventions combined with ideas for good neighbourhood or very innovative construction methods . One material that became predominant was nude

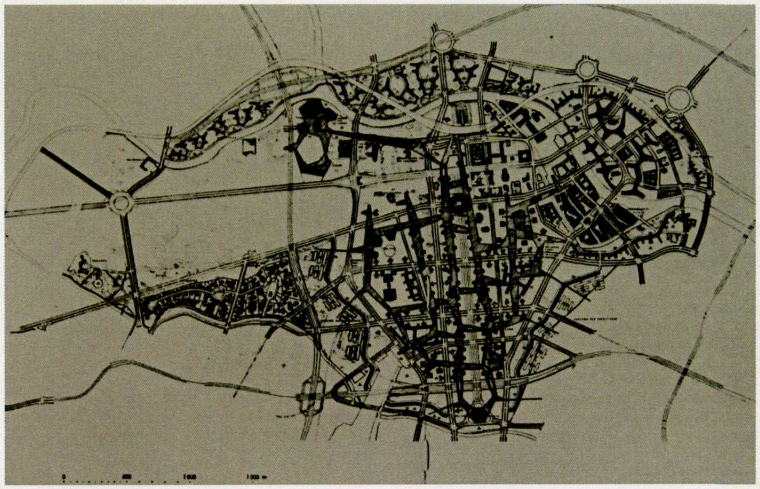
*12. Moudon-la-Forêt, Housing Estate. Fernand Pouillon, 1959-61*

and board-marked concrete. It was largely used with the common canon of forms: clear, prismatic, abstract. In many cases architecture becomes sculpture. The rationalisation of building methods – intended, but seldom realised in the Modern Movement – became possible; heavy concrete elements played a predominant role. Often, the repetition of big elements led to a lack of atmospheric qualities and a monotony of forms. The prosaic and firmly geometric cubes were intended as neutral envelopes, mere function was in the foreground.

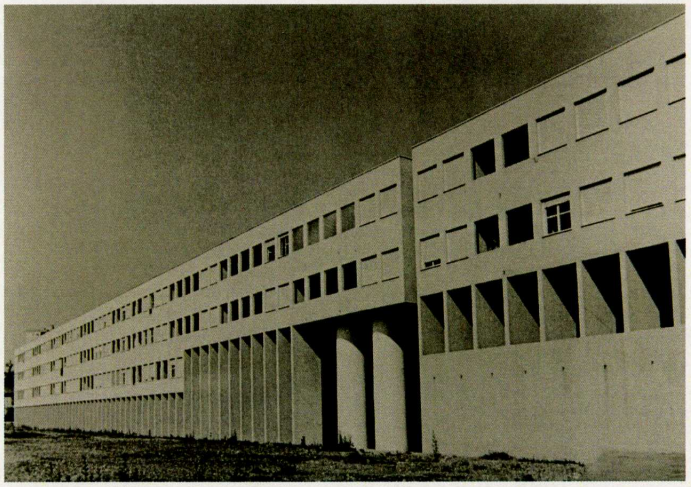
The tendency to overcome regional influences and to aspire to an international expression, an architecture independent of its location, can be observed in urban projects. In many projects of that time 'megastructures' have been proposed. As the project of Alison and Peter Smithson for "Capital Berlin", they hardly don't consider the existing built context and could be built anywhere.

From the middle of the Seventies, architecture became more and more multifaceted. Controversial developments can be observed. A new rationalism, which was emerging from Italy through the work of Aldo Rossi, is especially worthy of mention.

The fever of uncontrolled growth – and with it the International Functionalism – found its end by 1972, the year of the petrol crisis. The limits of growth were



*13. Contribution to the competition "Capital Berlin", Alison and Peter Smithson, 1957.*



*14. Gallerate (near Milan), Housing Complex. Aldo Rossi, 1970-73*

analysed and slowly a new conscience and respect for the natural basis of life began to grow. It also led to renewed thinking about the relationship between architecture and its location.

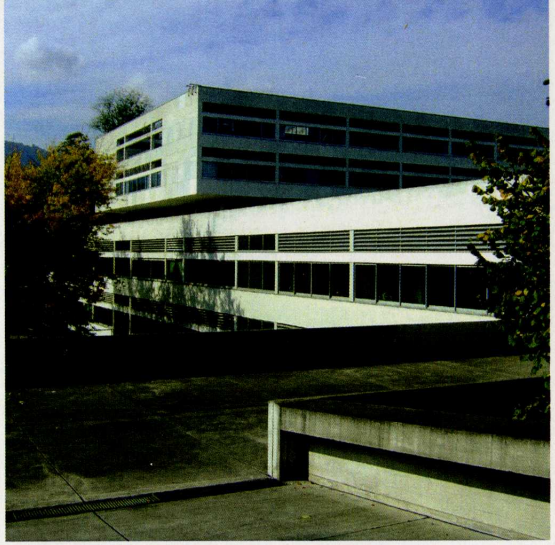
**Criticism on the Architecture of the Sixties**

In broad parts of the population critics on modern rationalism were unmistakable. It focused on modern settlements, but also concerned other building types such as churches or schools, whilst smaller buildings such as one-family-houses were less put in question. The architecture of enormous mass and monotony, devoid of cosiness, was generally considered to be ugly and led to a bad reputation.

Professionals tried to analyse precisely why this direction of development was wrong and formulated precise retentions. Some authors on the subject became famous. Jane Jacobs in the United States , Wolf Jobst Siedler with Elisabeth Niggemeyer and specially Alexander Mitscherlich in Germany, the architect Rolf Keller in Switzerland .

It is evident that in town-planning and bigger settlements many works of the Sixties and Seventies created enormous difficulties. They became visible in social unrest and created enormous problems in living together, which is still a problem today. In many considerations it is especially this negative impression that marks the public attention. The architecture of

*15a,b,c. St. Louis (Missouri), Settlement Pruitt-Igoe - its demolition with dynamite - the actual state. Minoru Yamasaki, 1954-72*



16. Zurich, Medium School Freudenberg. Jacques Schader, 1960


17. Köln, Playhouse. Wilhelm Riphahn, 1962

18. Berlin, ICC. Ralf Schüler und Ursulina Schüler-Witte, 1973-79

the Sixties is generally thought to be unfriendly and antisocial. This negative image led to spectacular demolitions of important and renowned settlements. One of them, the demolition of Pruitt-Igoe, has become a symbol of failure for the Architecture of the Sixties.

But, of course, there were also very valuable contributions in the Sixties that have been appreciated from the beginning; for instance, that was the case of the Medium School Freudenberg in Zurich. As mentioned, that positive appreciation concerns especially one-family-houses. On the other hand, the value of many works of architecture was discovered by the critics and the wider public only after some decennia.

Especially public buildings have been and are again highly appreciated. Partly they have been protected after large public debates; an interesting example is the fight for the Köln Playhouse. In some cases, they are landmarks in cities and have become real icons of architecture.

However, it may still be very difficult to raise public interest and acceptance for buildings of the Sixties even if their architectural quality and historical importance is clear. One major problem lies in the belief of that period that technical advancement would be able to resolve any problem. Usually the insulation is insufficient and with an enormous effort the comfort was granted by complex technical systems

that are very complicated and expensive in terms of every-day use. The energy crisis of 1972 made clear that the spread of energy could not go on. Somehow one could say, that this year marked the end of the architecture of the Sixties.

It should not be forgotten that the built environment of the Sixties was greatly influenced by a number of engineering geniuses. Partly alone, partly together with architects they built some of the most remarkable buildings of the period with very innovative construction systems. In the United States, Buckminster Fuller had great influence, in Germany Frei Otto and Ulrich Müther left important monuments, and in Switzerland Heinrich Isler built remarkable halls.

*19. Warnemünde, "Teepott". Ulrich Müther, 1967*

**Dealing today with works of architecture of the Sixties**

The principles for interventions on works of architecture of the Sixties that are considered valuable testimonies of the period are strictly equal to the principles adopted for monuments of earlier centuries. It is fundamentally wrong - as it is argued sometimes - to consider that recent architecture would need any other treatment than, for instance, gothic architecture.

Of course, younger buildings cause new technical problems, with new materials, new constructions or applications. Concrete, new forms of glazing, synthetic materials need new answers in preservation. The problems of building physics may be more difficult, the questions about reuse can be more complex. But the essential deontological principles remain the same.

In any case, when planning an intervention, the respect for the original substance and its conservation are central. In its passed down state it testimonies the conditions of building-time, the materials that have been available, the assembly methods used, the practice on the building place. Any substitution is a loss of authenticity and has to be avoided.

Hereafter the main principles for conservation and restoration are briefly described. They focus on buildings of the 20th Century.

*Identify, Assess and Understand the Building.*
At the beginning of any reflection on an intervention stays a deepened knowledge of the building. Its basis are precise plans of the actual building that can be compared with the (mostly conserved) original construction-plans and photographs of the diverse states of the building. Research on the architect, his œuvre and the conditions of construction of the building must be made. The research must include settings, interiors, associated art works, landscapes, settlement plans, etc. Comparative analysis can essentially help to establish significance.

*Use a Clear Conservation Planning Methodology.*
From the beginning, planning of the intervention should use an methodology that assesses significance and provides policies to retain and respect it. Interdisciplinary expertise is indispensable. The center of action must be to maintain integrity of the building ; to reach that requirement, parts that are important for the testimony must be identified and be conserved. In any case, long term maintenance planning is required. All records and changes must be documented and archived in a public institution.

*Research the Technical Attributes.*
Building materials and construction techniques of the 20th Century can differ from traditional materials and methods. Therefore, there is a need to develop particular repair methods and techniques that may require new research. The application of standard building codes may need flexible and innovative approaches to ensure good heritage outcomes.

*Deal Cautiously with Change.*
Whether as a result of human intervention or environmental conditions changes are inevitable. Therefore the manner how change of the built heritage is treated is the key to maintaining its integrity, authenticity and heritage significance. A cautious approach to change has to be adopted. Do only as much as is necessary and as little as possible to achieve the required change. Assess heritage implications to minimize impacts before works commence.

*Empathetic Intervention.*
Any intervention should be reversible as far as possible. Additions need to be subordinate. Changes must be distinguishable on close inspection. Design with close attention to existing character, scale, form, siting, materials, colour and detailing.

*Respect the authenticity of the site.*
Intervention work should not diminish historically important substance. Repair and restore rather than reconstruct. Conservation planning must include further maintenance, management and use, the respect for the value of significant layers of change and the patina of age.

*Contribute to the Sustainability of the Site.*
Pressure on the existing built environment (including built heritage) to become more energy efficient and sustainable is increasing. Appropriate balance between achieving sustainability goals without impacting heritage significance must be found. Better the energy characteristics of heritage site up to the point where neither its relevant historical substance nor its appearance could be harmed. Think in all three categories: efficiency, consistency, sufficiency.

*Promote Built Heritage in the Community.*
Interpretation is a vital part of conservation. Promote, distribute and publish research, conservation plans, events and projects concerning built heritage of the 20th Century wherever possible within the professionals and in the broader community.

The lecture for the students ended with a characterisation of the two buildings of architect Werner Düttmann in Berlin that were treated in the workshop, the Akademie der Künste, 1958-60 and the Hansa-Bücherei, 1956/57. As the two buildings are deeply analysed in the student's works, those chapters are not published in this context.

*Illustrations*
*1, 3: Vittorio Magnano Lampugnani: Die Stadt im 20. Jahrhundert, 2010.*
*5: Werk 2, 1939.*
*6, 10, 12, 13, 14: Peter Gössel, Gabriele Leithäuser: Architektur des 20. Jahrhunderts. 2006.*
*8, 11, 15, 16, 17, 19: Internet.*
*18: Kerstin Wittmann-Englert.*
*Others: author.*

# REWORKING THE RECONSTRUCTION ERA IN BERLIN

## Optimizing the Performance of the Academy of Arts, the Hansa Library, and the Shopping-Centre in the Hansaviertel

Edited by Wolfgang Jung, Hans-Jürgen Schmitz,
Winfried Brenne, Franz Jaschke and Stefan Heßling

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