

Fig. 56. East and west elevations.

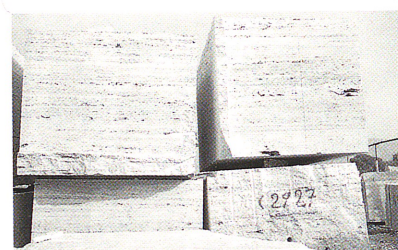
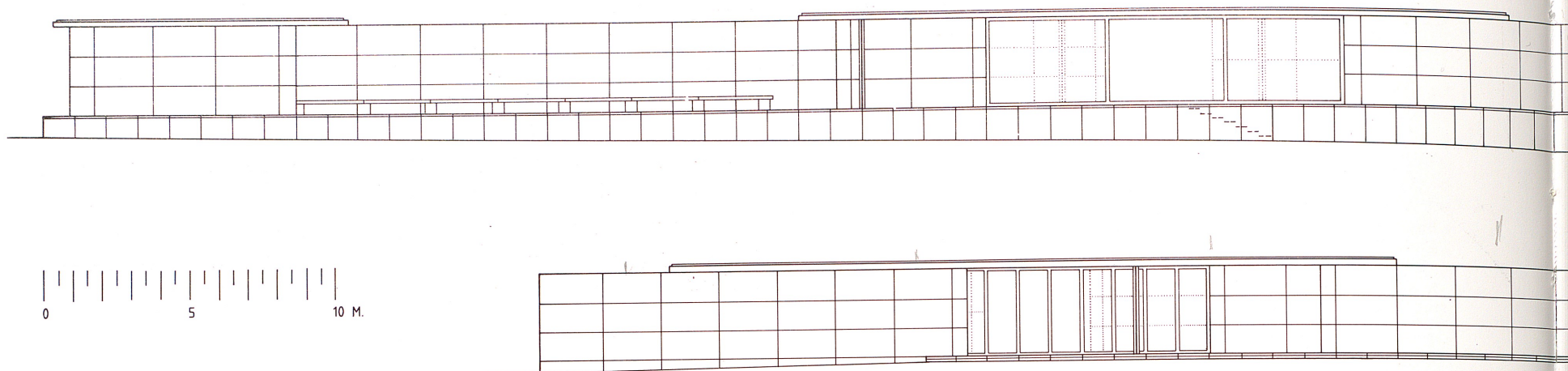


Fig. 58. The travertine cut in the form of the cladding slabs.

Fig. 59. The blocks of travertine for the Pavilion in the quarry in Tivoli.

The original Pavilion was designed to be a fluid space, open to the road and the garden. It was only after its inauguration that Mies designed doors for his building, whose incorporation has an evident air of being something additional.

In the reconstruction project, these doors have again been included, and for the same reasons. The security of the reconstructed building is based on two systems: a combined system with an alarm to detect intruders and a special external lighting system which allows constant surveillance throughout the night.

3. The materials

The travertine

Our commitment to understanding the architecture as an expression of the essence with the construction techniques and systems, makes the selection of the materials for the Pavilion of particular critical interest, in that Mies'

work sets out to be the expression of the material and the systems used in its construction. The choice of these is thus the key to the definition of Mies van der Rohe's architectonic will.

The attempt to understand any architecture necessarily calls for analysis of the elements employed in its construction, but in the present case this approach needs to be particularly acute. It would be particularly inconsistent to neglect such an analysis in considering Mies' architecture. As Mies himself said in 1924, «architecture is the will of an age translated into space. Until this elementary truth is admitted, the new architecture will be changing and experimental. Until then it will be a chaos of uncontrolled forces. What is primordial is to resolve the question of the nature of architecture. It is necessary to believe that this is intimately related to the spirit of its time, that it can only manifest itself in vital activities and in the context of its time. It has never been otherwise.»

In the Pavilion, particular attention should be given to the marble and its treatment, working and positioning, since it constitutes the greater part of both the surface area and the budget, as well as formally determining the basic appearance of the building.

Four different types of marble were used in the Barcelona Pavilion: Roman travertine, green marble from the Alps, old green marble from Greece and onyx from the Atlas.

Of these four types of stone, the one that most clearly marks out the image of the Pavilion is the travertine, used for the exterior walls and the paving.

The knowledge we have of the characteristics of the 1929 Pavilion is set out on page 13.

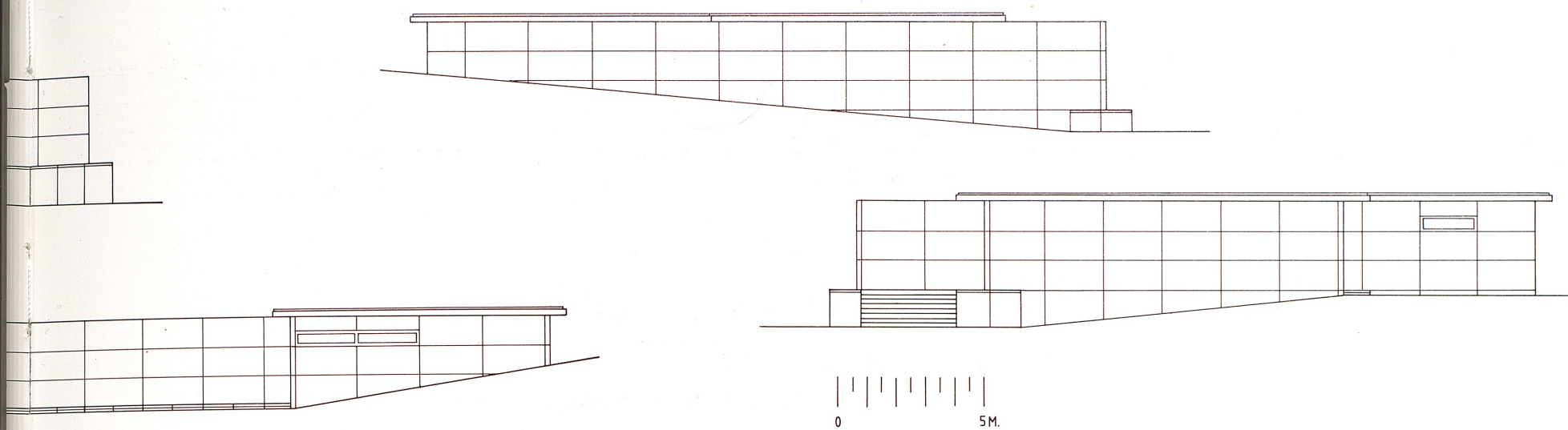


Fig. 57. South and north elevations.

In selecting the travertine for the reconstruction, we decided on stone for the walls from the «Colosseo» quarry in Bagni di Tivoli, in the Lazio region. There we looked for a block with the same irregular dip that had originally suggested to Mies the composition of the wall behind the continuous bench. The face of this block was pitted with little holes, and this, combined with its not being horizontal, meant that the owner of the quarry, Sig. Conversi, was extremely satisfied with our choice, which took what he felt to be a distinctly second-rate block of material off his hands. And, from the ordinary viewpoint, it was second-rate stone, just as the stone used in the original 1929 Pavilion had been. We decided not to fill in the little holes on the surface, which exposed the internal structure of the

travertine, consisting of little fossil spheres corresponding to the gas bubbles produced around the nodules of vegetable matter during the stone's formation, and since fossilized, carbonized or vanished, leaving residues diffused throughout the material.

This material, essential to the faithful reconstruction of the walls, was entirely unsuitable, on account of its pitted surface and irregular pattern, for the paving slabs. We therefore decided to try the other quarries in the vicinity for a travertine of similar composition but greater compaction, and thus greater density and better mechanical characteristics. Given that the irregularities corresponded to the edges of the lake-side area, we had to travel only a short distance to find a travertine with far better characteristics for our purposes, in the «Sybilla» quarry, also in Tivoli.

In order to obtain the right composition, our project included drawings detailing the cutting of the blocks, giving a number to each block in turn which was then assigned to its appointed position in the wall, so that the rhombic composition of the travertine in the wall behind the bench was made quite explicit. Probably on account of the unusual nature of our desire to compose the pattern of the travertine, neither suppliers nor intermediaries proved capable of interpreting the project, and shipped the material all mixed together and out of sequence.

Thanks to the sensibility and dedication which our marble mason —Jordi Marqués, from Granollers— and his men brought to the working of the travertine, and the patience with which all of the technical team accepted the need to put together and change as many times as necessary this jigsaw puzzle in travertine, we managed to achieve the desired result after rearranging the cladding four times.



Fig. 60. Anchoring piece with triple movement for adjusting height, width and depth.

The other stone materials used were the two types of green marble: one for the walls surrounding the internal pond —Alpine green marble— and one for the principal point of entry into the interior of the building —green marble from Tinos.

The first of these comes from the quarries of the Valle d'Aosta. Frequently used by Mies in subsequent buildings, the stone is characterized by its pattern of white veining over a vivid bluey green. In this case, just as Mies had done for the 1929 building, the combination of successive cuts were placed in a symmetrical arrangement, in groups of four slabs, to form the great concentric figures which create the spectacular effect of a vast landscape. On this occasion, the working out in advance the precise distribution of the pieces made it possible to form the figures on the interior as well as the exterior face of the wall. It should be noted here that it was our firm decision to totally clad all three faces of this wall, although we were well aware that on the 1929 building two of the exterior wall surfaces were without the green marble, which was replaced by a simple rendering in the same tone as the stone.



Fig. 61. The process of positioning the travertine slabs.

In this respect, too, we were perfectly clear that our criterion was not to reproduce the building as it had actually been when it was completed —or not completed— in 1929, but to carry through to its conclusion an idea with regard to which we had an abundance of information and the support of an architectural logic that was beyond all doubt.

As far as the green marble from Tinos is concerned, this is quarried in the region of Larissa, in Greece, and is thus also known as Larissa green marble. It is worth noting here that we were led to conclude that very many publications dealing with the Barcelona Pavilion perpetuate what we believe to be a confusion, originating in the description Genzmer published in 1929, wrongly referring to the Tinos green marble as Alpine green marble, and vice versa.

This Tinos or Larissa marble is a calcareous stone, its background colour a deep green verging on black, with highly irregular incrustations of stronger co-

lours, frequently white, silver, black and violet. The absolutely irregular distribution of these different colours, which do not appear in continuous veins, did not suggest an overall ordering composition of the slabs in any sequence. Instead, the slabs have been simply positioned so as to create a random pattern of shapes and colours which is singularly pleasing to the eye.

Finally, the most luxurious cladding material used in the building is the onyx, eight large slabs of which cover the free-standing wall in the central part of the Pavilion, as a finishing over the solid masonry core, using the same technique employed for the other stone walls.

Mies' onyx was familiar to us from various graphic and written descriptions, as well as by comparison with the extant cladding on the Tugendhardt house in Brno. Mies had purchased several blocks from a Hamburg supplier who had them set aside for the decoration of a transatlantic liner. They probably

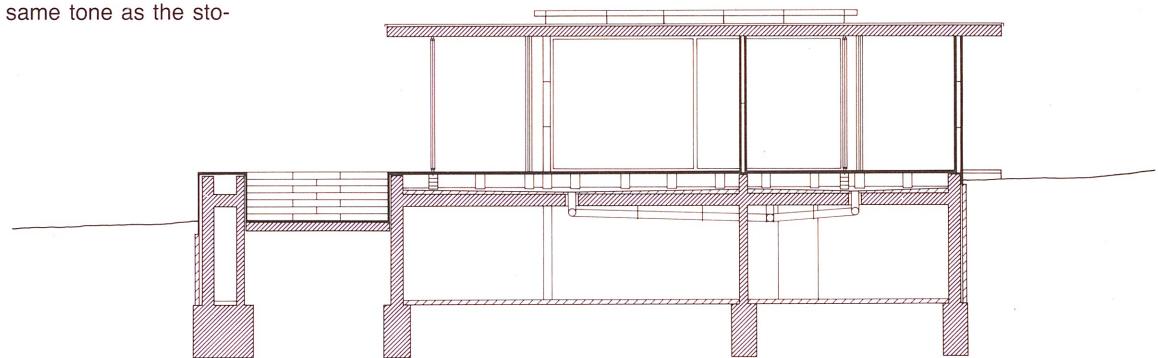


Fig. 62. Section of the main building.

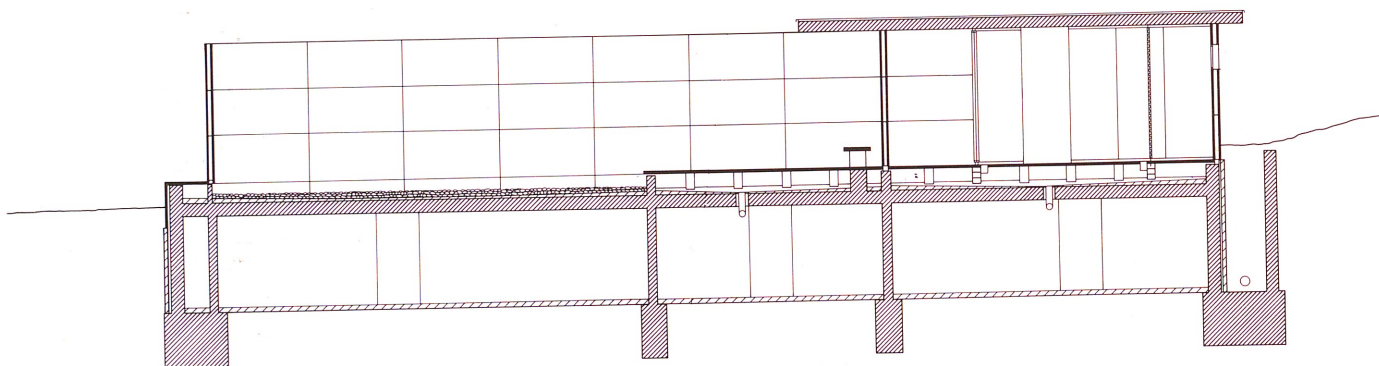


Fig. 63. Section of the auxiliary building.



came from one of the quarries then being worked in the French colony of Morocco.

The search for a similar material constituted the most novel episode in the entire process of reconstructing the Pavilion. After endless inquiries of all the usual suppliers of this material, and in the knowledge that the dimensions we needed for the wall were very much greater than whatever was available on the market, we decided to go directly to the sources which seemed most likely to be able to provide what we were looking for. Israel, Egypt, Brazil, Pakistan were all initial possibilities which proved fruitless in view of the apparently absurd size of the slabs we needed.

Finally, it was in the abandoned quarry of Bou-Hanifia, in what is now Algeria, that Fernando Ramos and Jordi Marqués discovered the material with large enough dimensions and similar characteristics to the legendary *onyx doré* of the 1929 Pavilion.

Our work with the stone elements proved to be an extremely interesting experience. Since nature never produces two identical stones, not even in the same quarry, our task as reconstructors was equally divided between a faithful adherence to the colour, texture and shine of the material and our creative capacity to act as architects interpreting what was, in our judgement, Mies' intention at the moment of choosing the material, the cut and the finish. This tension between imitation and invention was what marked out our work as being not a mere process of restitution but a genuine project.

4. Construction of the building

The base of the building consists of the foundations, the retaining walls, the structure of elevation on the site and the floor slab, together with the paving with which this is covered. We shall proceed to analyze these elements one by one.

The foundations of the 1929 building were continuous strip trenches filled with ordinary concrete. We had fairly clear ideas about the constitution of the foundations from various period photographs, but it was nonetheless tremendously gratifying for us to remove a shallow layer of earth and find, by means of regularly spaced trenches, in the traditional archaeological fashion, the entire foundations of the old Pavilion.

However, nothing had survived of the brickwork vaults of the floor slab of the original Pavilion.

In consequence of our decision to incline this floor slab to provide drainage, we chose to construct a conventional unidirectional slab, above which were the slopes, damp-proof course, a layer of mortar for protection and, on top of this and supported at the centre and the four corners, leaving a drainage chamber, the travertine slabs, 5 cm thick, measuring 1.09×1.09 m. We were thus able to avoid the problem of puddles forming, an inherent risk in any entirely horizontal surface exposed to the weather. In this way we also managed to ventilate the chamber beneath the floor used for the routing and control of the services in the interior of the base, comprising the filter for the water in the pools, a small heating unit for the offices, the electrical and drainage services, and the computer, telephone and security alarm systems with which the Pavilion offices were equipped.

The retaining walls are of reinforced concrete. In the corner by the highest part of the site the excavation of the foundations revealed that Mies had applied the same solution we had decided

on: the construction of a retaining wall to hold back the earth in the corner, free-standing and separated from the office building by one metre, so that any deformation of the wall by earth pressure would not affect our structure, as well as to create a drainage zone, filling the cavity between the wall and the building with stones and incorporating the necessary conduits for the water thus drained.

The walls

Mies attached considerable importance to the freeing of the walls from their traditionally primary function: load bearing.

Released from the function of supporting the roof, Mies' walls were free to carry out their other tasks: separating, defining spaces, marking out itineraries and presenting to touch and sight their patterns, colours and textures. The stone is thus liberated, from now on, from its structural task and confirmed in its role of cladding the walls.

In these free-standing walls continuity and support are provided by an orthogonal network of U-sectioned metal elements which make up frames which are spaced at the same interval as the module used for the stone slabs. The slabs which cover both of the wall surfaces are fixed to this metal framework with a continuous butt joint, the better to express, in its patent defiance of the laws governing conventional tongued and grooved joints, the fact that here the stone is being used as a cladding material, on the walls (30 mm thick) as well as the floor (50 mm thick).

The solution adopted was both novel and effective: a framework of metal supports on which the travertine, marble or onyx slabs are mounted by means of a suitable system of fixings. In the Pavilion, Mies van der Rohe first tested this system which he was later to introduce to the United States, and which allowed the use of the stone as a cladding material thanks to an unquestionably new technique that was free of the problems associated with

Fig. 64. Tests for the support of the suspended flooring.

Fig. 65. Preparation of the anchoring slots on the edges of the travertine slabs.

Fig. 66. Detail of the anchoring of the slabs to the metal supporting structure.

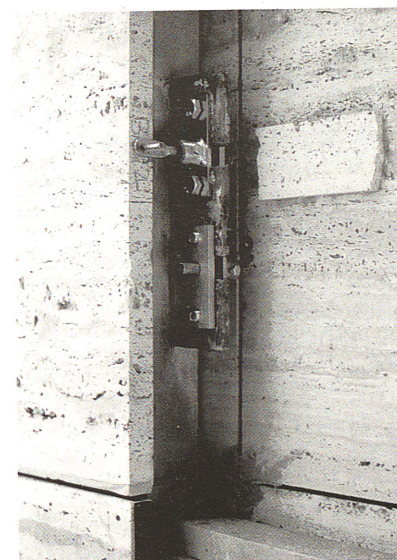
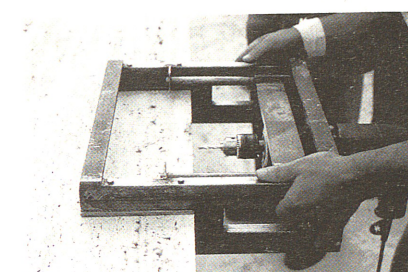
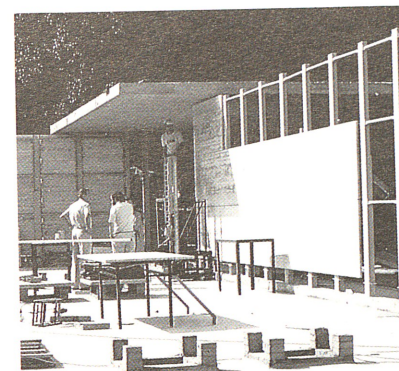




Fig. 67. Fixing the slabs of Alpine green marble in place.

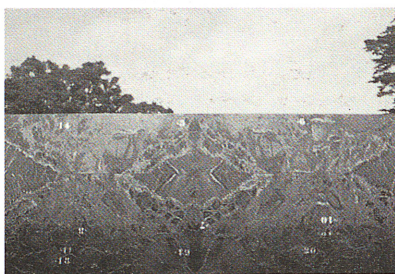


Fig. 68. The slabs of Alpine green marble with their identification numbers.

cladding based on cements and stone infills, permitting solutions that were not only easy to dismantle but both lighter and reversible in their use of the material. The possibility of dismantling these costly finishes, as was subsequently carried out, would have been much more difficult using traditional cladding techniques. It is nevertheless true that not all of the problems posed by the edges of the surfaces covered by double slabs were resolved, given that while on the side walls Mies applied a precise, logical solution using solid elements of the same thickness as the wall, this was not extended to the base, where it was not essential, nor to the crown, where the solution consisted of a sandwich composed of the two outer slabs in a way that was unsatisfactory in terms of both design and technology.

Certain of these problems, together with apprehension about the effects of Barcelona's maritime, industrial climate on a metal structure that could not be inspected and overhauled, meant that our decision as to the system to be adopted in the reconstruction of the walls passed through various different stages.

Originally, our concern with durability, together with the fact that Mies had filled the cavities between the metal framework and the stone cladding with mortar, led us to think that we might perhaps obtain better resistance to the unquestionably corrosive maritime and industrial atmosphere of Montjuïc, given the real evidence of the backing-up, with a wall that was itself of stone or reinforced concrete. That was our first proposal. Later we came to see that one of the reasons for backing up the cavities had been the little-known fact that, in consequence of the cutbacks in the budget imposed on the project, only those surfaces which gave onto the interior of the Pavilion or the main facade

were clad in stone, while the others were rendered and then painted to give a degree of chromatic continuity with the material used to clad the corresponding wall.

Evidently, the need to provide a continuous base for the plaster rendering was a more than sufficient motive for the general backing-up. Since this problem was not one which our project had to address, we chose to return to the concept of a load-bearing metal framework with the cladding fixed to it, thus allowing freedom of movement to the various panels, which rested entirely on the four points provided by the system of fixing, without suffering constraint from a concrete infill which might also in due course include other kinds of geological movement.

This decision was also influenced by seeing the continuing viability of the solution originally proposed by Mies for the stone cladding and subsequently adopted by P.C. Johnson in his New York skyscraper for AT&T. The decision to rest the stone slabs on only four points called for great care in the design of the system of fixings holding them in place.

Starting with a system of anchors manufactured by the German company Frimeda, with additional input from the Spanish firm Mekanotubos, slight modifications were made in order to facilitate the placing of the fixings on the sides of the panels, as is normally the case, or at top and bottom, where the construction process required this. The thickness of the fixing panel was also adjusted so as to show the desired thickness of the joints (5 mm).

The load-bearing structure, roofs and waterproofing

The load-bearing structure of the roofs was approached differently in each case. While the roof of the office building rests on the metal framework of the walls, the roof of the main volume of the Pavilion is supported on eight cruciform-section pillars, which form four symmetrical bays, with a central space of 6.65×7.35 m and a span at the edges of 2.10×3.45 m.

The discovery inside a foundation trench of the anchoring for one of the pillars enabled us to correct an error in our dimensions: the L-shaped members of the cross-section, which in our project, based on the authority of a number of studies, measured $100 \times 100 \times 8$ mm, in fact measured $100 \times 100 \times 10$ mm in the original.

We felt it would be ill-advised to literally repeat a construction system for the roof which Mies himself had modified in subsequent schemes. At the same time, the considerable spans of the roof demanded a structural element that would not readily suffer from metal corrosion. After a stage during which our project proposed a reticular concrete slab for the roof, we decided to simplify this, opting instead for a continuous reinforced concrete slab to avoid problems of differing degrees of adherence in the covering of the roof.

In order to prevent the deformation of the points of the slab, the concrete form has been constructed with a contraflexure of the order of 6 cm.

As far as the waterproofing is concerned, while the structure of the roofs has been resolved using a variety of construction techniques, its geometry, after lengthy debate, was not altered, so that there is a system of direct rain-water drainage for the entire perimeter of the roof slabs. This, combined with the slight slope of the slab, led us to replace the bitumen felts used on the roof of the original Pavilion with strengthened grey polyester, thus avoiding joins, which are apt to leak where the slope is very slight, and facilitating subsequent maintenance.

The woodwork and metalwork

The metalwork on the window frames of the building was familiar to us from the details recently discovered amongst a collection of other papers on the Barcelona Pavilion in the Mies van der Rohe Archive at the MOMA, New York.

We have respected the original characteristics of this metalwork detailing, except in the use of chrome for the finishing. Numerous tests carried out using the best techniques led us to the conclusion that, given the acidity and humidity of the Barcelona climate, it was impossible to guarantee an acceptable durability for this finish. The metalwork used in the reconstructed Pavilion is thus entirely of polished stainless steel, giving a brilliant finish which closely resembles the mirror-like shine of the chrome used in 1929.

It has proved highly instructive to analyze the succession of Mies' metalwork detailing throughout the course of his architectural career and discover that Mies remained faithful to the end to the scheme he had worked out for the Pavilion, not only in his smaller buildings but in the skyscrapers, despite the fact that these called for much greater rigour to ensure the sealing of the joints.

The woodwork in the interior of the administrative offices follows the distribution most probably established by Mies, although it is not entirely certain that this interior was properly finished. We have used wooden frames dressed with clear varnished maple panelling to form the interior divisions and the doors communicating the two offices and the toilet in the service pavilion. These are the only wood finishes anywhere in the Barcelona Pavilion, and their design, although based on an analysis of the way such divisions using wooden frames and panels are typically handled in later buildings by Mies van der Rohe, is the product of project criteria established by the architects responsible for the reconstruction.

Security and the surrounding area

The maintenance of the building, and above all its security, pose the same problems today as they did in the past. Mies van der Rohe created a building conceptually linked to a continuous circulation route in which there was no precise impassable barrier between the exterior and the interior. However, while there was no need to restrict the free

movement of visitors around the exterior space, the interior, with its furnishings and delicate finishes, presented obvious problems of control.

The same solution has been adopted for the reconstruction as for the original building. Mies designed doors which could be easily removed and replaced as circumstances demanded. These two double doors, whose metal construction is similar to that of the large windows, with clear glass, have been recreated in their original form. There are extant working details, filed by mistake amongst other projects in the Mies van der Rohe Archive in the MOMA and recently rediscovered. The technical solution did not present any great difficulties, bearing in mind that the important thing was to keep out intruders, especially at night.

At all events, this indispensable feature of the building's security has been complemented by others measures which ensure strict control of access.

In the first place, a metal railing set in the midst of bushes encircles the garden laid out around the building, from the top of the hill to its north and south boundaries, so that the area of the Pavilion is delimited by the railing, the wall of the Palau de Victòria Eugenia and the Pavilion itself.

In addition to this, visual control by means of closed-circuit television detects anyone approaching from the various points of access to the building. An underground alarm system is triggered by anyone approaching the building by way of the garden, while a network of beams controlled by photoelectric cells provides an invisible barrier protecting the front of the Pavilion.

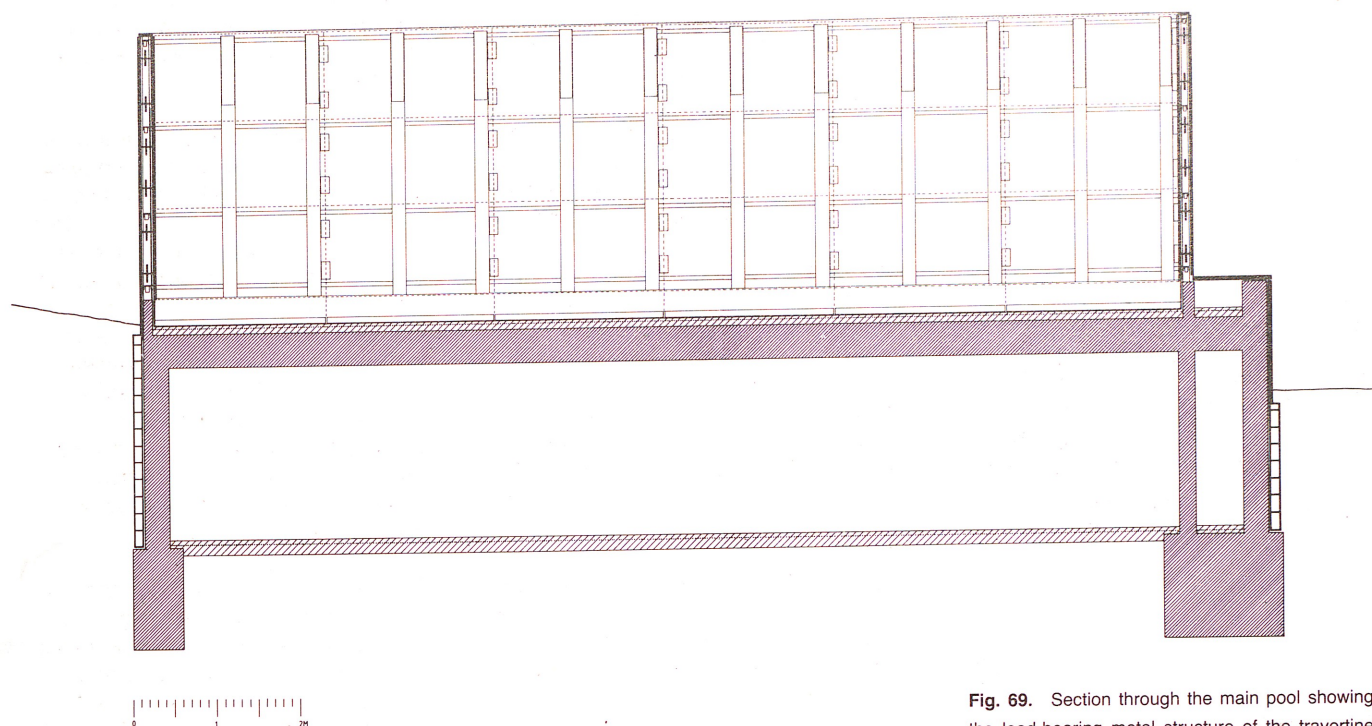


Fig. 69. Section through the main pool showing the load-bearing metal structure of the travertine walls.



Fig. 70. The structure of the podium and the concrete roof before being clad with stone.

Fig. 71. Platform and metal structures before being clad with stone.

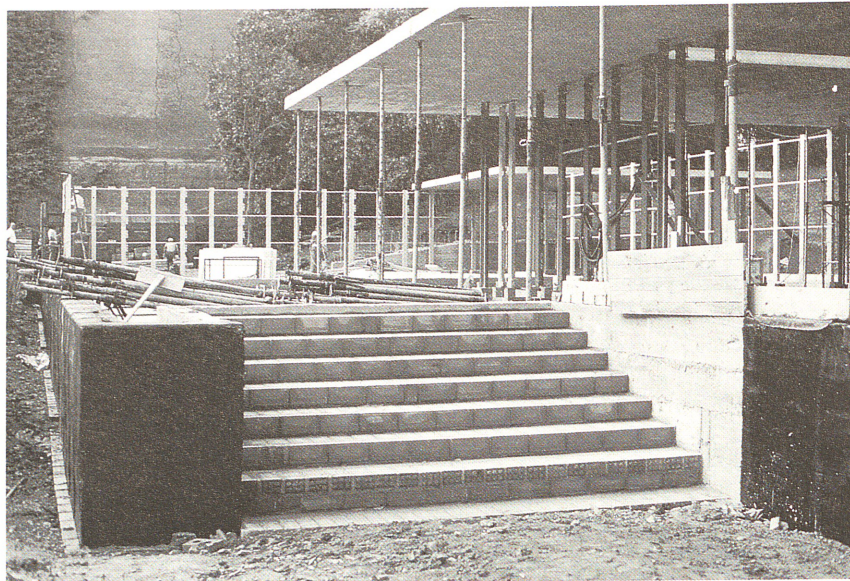
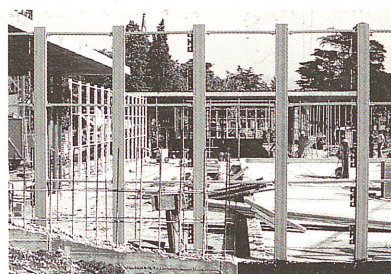


Fig. 72. Detail of the metal structures supporting the travertine slabs.



Nevertheless, these various measures were not designed to definitively seal of a building whose *raison d'être* is circulation, openness and freedom of movement. Accordingly, the security measures we have introduced are no more than aids to the human surveillance of the security guards, who have ultimate control over everything taking place in and around the Pavilion.



Fig. 73. Positioning the windows in their stainless steel frames.

Some reflections on the services

The experience of carrying out the reconstruction posed numerous problems of detail, and in becoming aware of these we were led to reflect on various questions concerning the services, and the effectiveness or limitations of these. In conclusion, then, we would like to consider certain of these services: the drainage, the lighting and the heating.

These are all problems whose scope is very closely related to the permanence and diversity of use envisaged for the building in question. In the case of the building constructed in 1929, these were given specific local solutions rather than being incorporated into the overall design of the complex as a whole. Although we know that a new sewer was specially dug for the Pavilion, and a water supply provided, it is apparent that in general the complex problems of the drainage of the flat surfaces were approached in an extremely summary fashion. There are gradients indicated on the Köstner und Gottschalk working drawing which were probably not constructed. We also know that there was no guttering on the roofs and that the large pool had a small machine room with a pump, access to which was via the rear part of the wall looking towards the Palau de Victòria Eugènia.

As for the artificial lighting of the Pavilion, this was based on the idea of illumination through the box formed by the double sheet of etched glass which formed the light well, with electric light bulbs in the interior to reproduce the daylight which entered from above. The letters addressed to Mies van der Rohe by the people responsible for the maintenance of the building after its official opening make reference to the problems of increasing and improving the illumination, of training a spotlight on the Kolbe statue, and of the illumination of the surrounding area. These questions were left unresolved, evidently because of a lack both of time and of money in the budget. Limitations such as these give us a clearer understanding of the margins within which the project was conceived and executed, and within which formal inventiveness supplied its synthesizing and innovative response.

In our project the artificial lighting makes use of three types of solution. In the first instance, the reconstruction of the original system of nighttime illumination by means of a sandwich of white etched glass dividing the interior from the exterior. The electric bulbs which Mies used here have been replaced by two fluorescent strips, one for each sheet of glass, to give an almost uniform white light, diminishing slightly from floor to ceiling.

The second light source used in the interior spaces is provided by the inclusion of a series of sockets set into the floor to allow the installation of standard lamps which, particularly with halogen light reflected off the white plaster ceiling, offer a homogeneous illumination of the interior with no need for the addition of further extraneous elements on top of the clean sequence of planes which compose the space of the Pavilion. This simple solution was arrived at after consulting experts in lighting technology and assessing the projects they drew up, and in view of the insurmountable difficulties presented by any kind of solution using fixed spots or other light sources.

Finally, the scheme for the exterior combines soft illumination of the water in the pools with diffuse lighting around the building, amongst the trees and against the walls facing the building, guided at all times by the principle of making the building's form and volume recognizable rather than modifying it with beams of light which would undoubtedly conflict with the architectonic values of the building.

With regard to the heating, as in the case of the other services described above, we were confronted with the problems associated with the introduction of elements which would inevitably have a considerable impact on the final form of the building. The solutions we adopted are for this reason limited in

scale. The roofed space of the Pavilion proper is provided with a single radiant heating system using electric radiators incorporated into the mass of the plaster rendering on the ceiling.

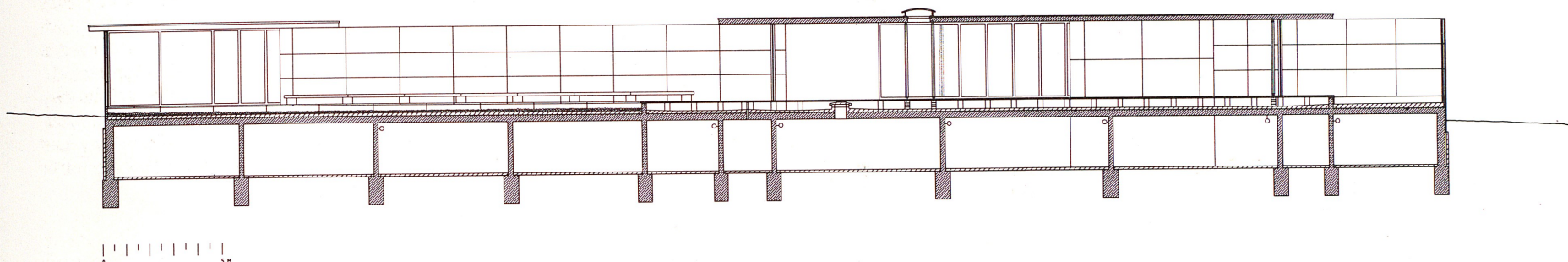
The administrative offices are equipped with a complete air conditioning system, with the air circulation ducts installed inside the suspended floor and the air-conditioning machinery located in the service basement, a space added to the reconstruction project to accommodate the various services and store-rooms the Pavilion requires.

We have not, however, included either of the two tables designed by Mies, which had tops of travertine to match the paving, and legs of the same type. Knoll International's experience proved to us that the large table which had stood by the white etched glass window was completely unstable, while the smaller table positioned by the onyx wall was almost as unsafe. Considering that an unsafe and uncertain attempt at reinstating these tables would be a poor compliment to the rest of Mies' incomparable furniture, we decided, at least initially, not to include these tables, production of which has long since been abandoned.

At the same time, Mies van der Rohe "took advantage" of the existing landscaping on the site, part of the gardens laid out by Forestier and Rubió i Tudurí when they set out to convert the hill of Montjuïc into a park in the middle of the second decade of the new century.

All of this induced us to recreate a comparable environment, above all bearing in mind the fact that many of the trees planted for the 1929 Exposition had survived in place. These somewhat abandoned plantations included umbras, magnolias, cypresses and laurels, a number of which were in a sufficiently precarious state as to need replacing, while others needed no more than a careful pruning to revitalize them.

Fig. 74. Longitudinal section.



Furniture

The «Barcelona Chair» created by Mies van der Rohe for this building was clearly expected to occupy the place which Mies' project itself had set aside for it. Commercial exploitation and the subsequent copying of this famous design have not done justice to a type of chair whose refinement lies in the perfection of the finishing of both the metal and the leather elements.

The Knoll International company was able to supply us with versions of the chairs and the ottoman stools which are of the highest quality, in white kidskin, with a chromed metal frame precision soldered at the joints.

The administrative spaces are furnished with a combination of the M.R. chair, also manufactured by Knoll International, and standardized office furniture by Tecno.

Finally, the red curtain running in front of the transparent glass window is in double-sided velvet, and the black carpet is of machine-woven wool with a simple finish, also in black.

Landscaping

It is evident that Mies van der Rohe's intention here, as in other of his projects, was to create an effect of contrast between the strict geometry of the forms of his architecture and a natural backdrop of leafy green trees and shrubs.

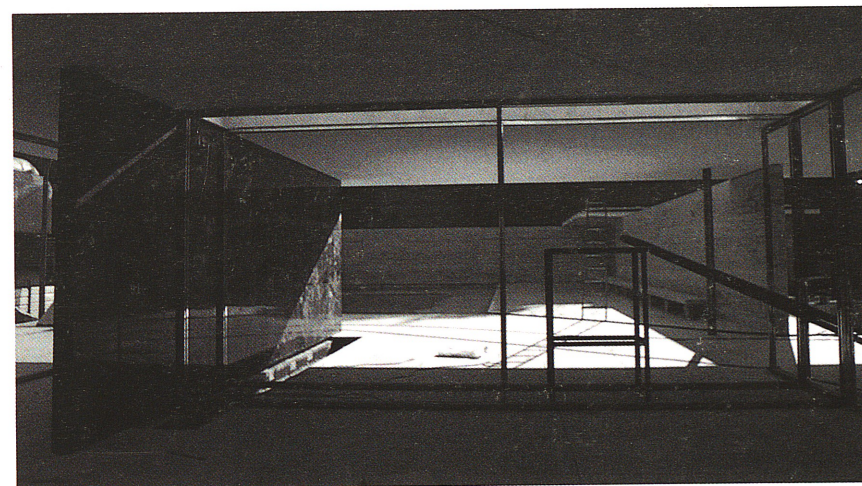


Fig. 75. View of the exterior from the interior before putting in the translucent white glass.

Fig. 76. Detail of the travertine wall, the anchoring, suspended floor and exterior pool.

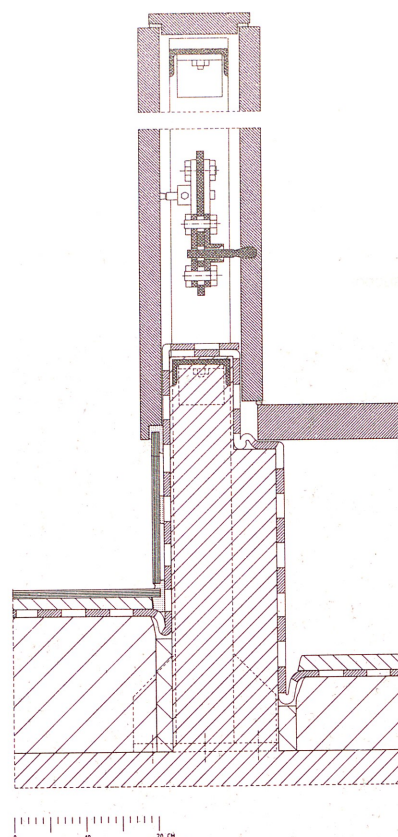
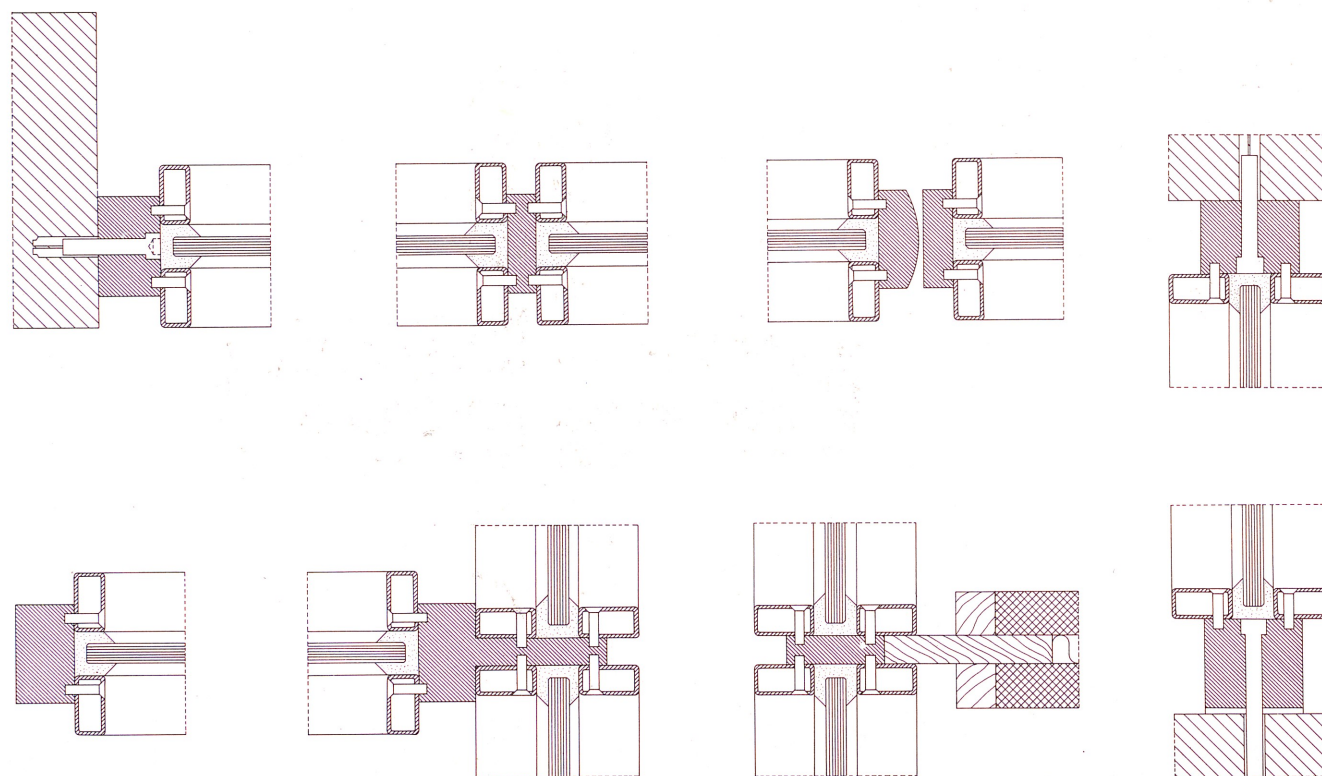


Fig. 77. Detail of the metalwork.



The ground around the Pavilion was treated in two ways, using coarse sand for the pedestrian access areas, and dark green Mediterranean ivy on the whole of the area to the rear. Masses of oleanders surrounded, as in the past, the administrative office building, while a row of umbras screened the metal railings ringing the perimeter of the protected area of the Pavilion.

The question of protocol concerning the flagpoles presented a slight problem, in that the indispensable pair of tall masts for the German and Spanish flags should by rights be complemented by a further three masts flying the flags of Spain, Catalonia and the city of Barcelona. This delicate matter of symbolism was resolved with the addition of a group of three somewhat shorter flagpoles set in front of the wall of the Palau de Victòria Eugènia, at the end of the perspective formed by the road running in front of the main facade of the Pavilion.

5. Final reflection: in defence of a replica

When Marcel Duchamp appended his signature and the words *pour copie, conforme* to the margin of the copy of the *Grand Verre* that Ulf Linde had produced for the Museum of Modern Art in Stockholm, he effectively ratified the end of the Romantic conception of the work of art. Duchamp himself had already carried out numerous operations in which all that remained to bridge the space between the object and its status as art was the deliberate intention on the part of the person who determined to undertake this significant act.

The *Grand Verre*, the *Glisière*, the *ready-mades*, were also reproduced on numerous occasions with Duchamp's explicit approval.

It is equally true that reproductions have served over the centuries to extend the repertoire of art. At his villa in Tivoli, Hadrian had imitations constructed of the architectures that had most impressed him on his travels, in the same way that Lord Burlington was to recreate Palladian villas in the gardens at Chiswick, or the Venetians, in the early years of this century, rebuilt their *campanile* in front of the Cathedral of San Marco after it had fallen down.

And yet, despite these several illustrious precedents, we must in all honesty confess that we experienced a tremor of doubt when we had completed our reconstruction of the Pavilion erected by Mies van der Rohe in 1929 on the slopes of the hill of Montjuïc, in Barcelona.

This building, which we had seen reproduced dozens of times in all the major books on the history of art and architecture, whose simple plan we had studied on so many occasions without entirely grasping the distance between the clear order it seemed to reveal to us and the intellectual tension of the displaced elements, was an icon which for more than fifty years had been generating an intense energy, as a presence confined to the pages of books and magazines.

To reconstruct the Pavilion was, in these circumstances, a traumatic undertaking. On the one hand it meant entering into that Duchampesque perspective in which we had to accept, *hélas!*, a certain inanity in our aesthetic operations. It is hard to maintain the almost religious conviction that art is the reproduction of unique, unrepeatable and transcendent events when its reproductions fill the popular media, or when we are confronted by the conventional nature of its values.

Yet there was still a sense of daring in resolving to undertake the challenge of recreating, before our very eyes and in the three dimensions of physical space, what had for so long been essentially a graphic reference. To redraw the project that Mies van der Rohe had worked out under such great pressure late in 1928, to travel to the stone quarries of Italy, Greece and North Africa in search of similar materials, to make a hundred visits to the site selected by the architect, in order to construct there, in the reality of its dimensions, textures and colours, that image we all had in our minds, was, without a doubt, risky.

We have no doubt that all those of us who played some part in this undertaking are conscious of the distance that exists between the original and its replica. Not because the quality of its execution is inferior, which is not the case, or because it was impossible to determine precisely how all of the details of the building had been resolved, but because every replica is, indisputably, a *reinterpretation*.

In the same sense that it is impossible for us to hear the *St Matthew Passion* as Bach conducted it in the church of St Thomas in Leipzig, for all that we can enjoy brilliant and sensitive contemporary interpretations of it, so too for this masterpiece of modern architecture —“perhaps the most important building of this century”, in Peter Behrens’ words— what we have attempted to bring to a successful conclusion is an *interpretation*.

Faithful in the site of which it has been reconstructed, although at the moment suffering lamentably from the ugly presence of a bunker-like neighbouring building which is crying out for demolition; as exact as possible in the resolution of the details —“God himself is in the details”, Mies himself remarked on more than one occasion—; painstaking in the choice of the materials and the dimensional layout, on which countless studies and consultations with technical specialists and experts on Mies’ work were lavished; and finally, nevertheless, different, we know, this second version of that Pavilion that was constructed too hastily, with the excuse that it was only to last a few months, using the Third World technologies of 1929 Barcelona, leaving unresolved the conceptual problems which throughout his life Mies van der Rohe struggled again and again to work out in his buildings.

But the proof of all this, the most decisive proof, is something that cannot be explained by the printed pages of this book, except at the risk of falling, once again, inside the closed circle of paper architecture. It is necessary to go there, to walk amidst and see the startling contrast between the building and its surroundings, to let your gaze be drawn into the calligraphy of the patterned marble and its kaleidoscopic figures, to feel yourself enmeshed in a system of planes in stone, glass and water that envelops and moves you through space, and contemplate the hard, emphatic play of Kolbe’s bronze dancer over the water. This is what we have tried to achieve and to offer to the sensibility and the culture of our time.

Fig. 78. Presentation of Kolbe’s sculpture on its support.



Fig. 79. Positioning Kolbe’s sculpture on its Alpine green marble pedestal.

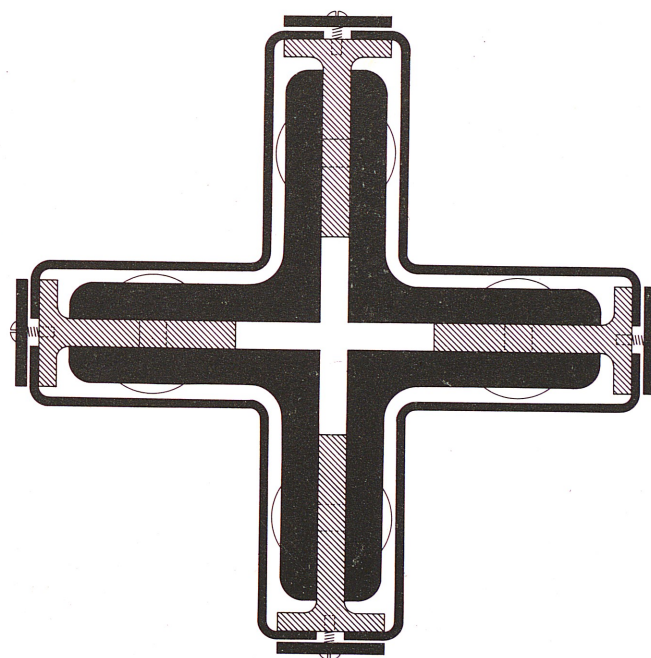


Fig. 80. Detail of the metal pillar.

