ENGLISH

English translation by **David Cemlyn-Jones**

An appraisal of Mendelsohn

Miguel Ángel Baldellou

A graphic expression repeated over and over, Mendelsohn's infinite versatility, and the memory of some inimitable and extraordinary buildings stick in the mind. And still it seems that his influence can be detected in anything that presumes to be "modern".

Few architects as so often mentioned to the point that his name has became an adjective for a type of architecture, and so little known as Mendelsohn. He was much favoured by circumstances when he started out as he was harmed later on by his independence, and the wealth that official history denied him was compensated for by his real influence among architects who attempted to produce works of quality that were divorced from ideologies.

He belonged to that generation of German architects born at the end of the last century and who began their activities at the height of the debate between Einfühlug and Sachlikeit. Heirs to a profound artistic style and seriously involved in real conflicts and theoretic constructions that were influenced by the 1914 war, they suffered that great crisis of form parallel to their own quest for a professional identity.

Crisis is undoubtedly the word that will always be associated with the architecture of their generation. From a perspective of crisis they viewed their profession as a mission, and as artists their message as a type of revelation.

In this sense, building architecture was the consequence of a latent idea, acquired from observation by an intuitive and obsessive process that captured reality in a transcendental form to launch it into the distance of time, imagined from the present or a past recovered from nostalgia, favouring a positive future opposed to a situation considered as negative. To deny the present could be clearly improved, involved assuming the responsibility of projecting the future. Faith in the future was based in the certainty of a message delivered by nature and picked up by superior beings, artists elevated to the ranks of legend. Without the Great Crisis this need would never have emerged with such force. It was the search for an origin that could only be reached from the most intimate interior, submerged in doubts, on a journey of initiation in the strictest sense.

The journey to the origins was undertaken at many levels. In Mendelsohn's case, he needed solitude after enjoying company. After his Munich experience, where he met the members of the Der Blaue Reiter, and completed his architectural studies, the precise conditions for the revelation of his mission as an artist arose. Some key events occurred, including in 1910 the death of his mother who had introduced him to music, and his marriage in 1915 to Louise Maas, his life-long partner. With the declaration of war, his enlistment and march to the front, came loneliness only made bearable by memories. The loss of the sight of one eye, ill with an ailment that would later kill him, underlined his perception of sounds and textures and he concentrated on himself, absorbed in thought. Everything led to the mystical contemplation of his condition.

Of the various Mendelsohns that existed, a thoughtful dreamer who was as confident as he was practical developed at this time. No one can have been surprised by the power of the 1919 Einsteinthurm, almost a prima opera.

E. Mendelsohn emerged on the German scene like a flashing explosion. If the exhibition of his drawings from the front at the Cassier Galleries in 1919 could be described superficially as escapist, his Potsdam construction was immediately recognised as one of his generation's most powerful formal references. Beyond its scientific significance, the legendary surname on the inscription, and the literature to which it could be linked, it contained his image and his totemic personality.

The drawings and the Einstein Tower identified the architect permanently as a key figure of expressionism, a decisive general current along which flowed the different tendencies of the Modern Movement.

That early success made Mendelsohn stand out among his generation and gave him a monopoly of assignments from a culturally aware, rich clientele who was distrusted ideologically by the extreme right and left. All these factors that initially allowed him to develop his best ideas with sufficient freedom, later contributed to his isolation and his pigeon-holing. Among his first important clients, the publisher Mosse played a decisive role. He built the editorial exhibition pavilions for his newspaper, the Berliner Tageblatt, thanks to which he was able to travel to the East and the south of Europe, and the United Sates in 1924 and Russia in 1926. He was able to observe from different and contrasting cultures the crisis of values of the century now ending, and to attempt to create a synthesis of opposites in his thought and his architecture. His powers of observation allowed him to photograph with discernment and to make suggestive comparisons. His vision of the East and West is still valid.

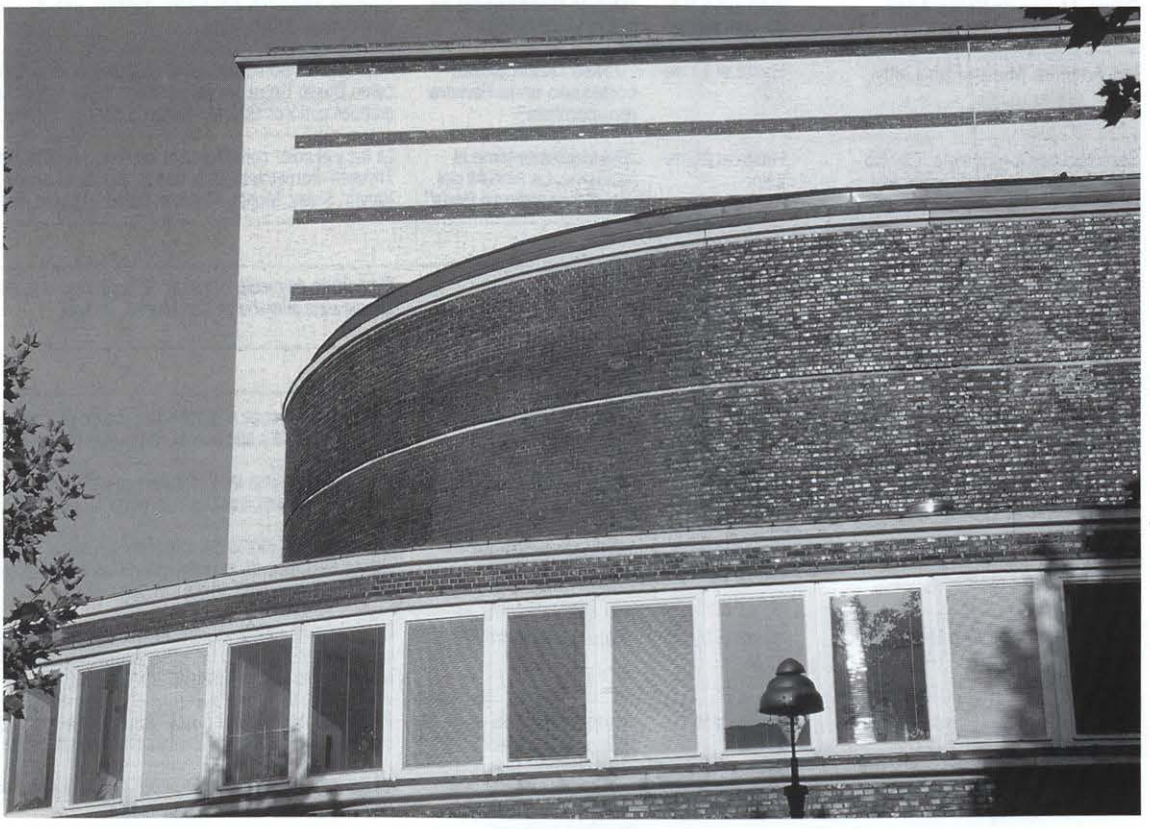
From that moment two possible goals were available to him: Palestine newly created by the founders of Zionism (Waitzman . . .) and the Utopian America of Whitmam and Wright, his great human and professional hero. This latter destination brought Loos, Neutra, Schinder and Mendelsohn from Europe, following the Wasmuth edition of Wright's work. Of all of them, perhaps he was the most rootless and the most suited to a life that could be described as one of a vocational nomad. His German residence cannot be fixed, because he moved from his hometown of Alleinstein in Prussia (now in Polish territory) to the Munich in Bavaria, with Berlin being his initial and final centre. He also lived forced absences due to the war and study trips, sought the freedom denied him in his country of origin in a land that never fulfilled its promise, in England, Palestine and finally in Chicago and Los Angeles.

THE SEARCH FOR A PLACE IN THE WORLD

Mendelsohn's life is that of a nomad seeking his place in the world. In his journey he carried a tabernacle containing his own roots, enclosed in his dreams, his drawings, and the memory of a half-seen and never fully completed image. A promised place never attained.

In different oases he seemed to identify his longings. In this sense his choice of Los Angeles as a place of residence was exemplary. It seemed as though the very scenery made him hear a voice proclaiming the promised land, tied to the stunning natural beauty of a privileged place.

Previously, he had longed to hear this same call in the French Mediterrranean where he tried to retire to manage an artistic academy, or in Palestine where he joined the great project for a new Israeli state. And temporarily in England, a temporary stopping place, from where he could catch a glimpse of a freer and wider horizon. If it was here that he first changed his nationality, he desired to be



reborn in America by adopting US citizenship and, even more significantly, changing his name. The new Eric, no longer Erich, wanted to start out again, a venture that proved to be too short in a country imagined as free.

Because, in fact, E. Mendelsohn's productive periods were always very short, interrupted by periods of silence. Intervals of 14, seven and seven years of activity between 1919 and 1933; 1933-1940 and 1950-1957, were cut short by the Second World War and adaption to post-war America between 1945 and 1950. The still phases were, however, profitable for interior reflection, for basic ideas to be developed in each subsequent stage. They helped him create, like his personal crossing of a desert.

SOLITUDE

Loneliness probably accompanied him from childhood, was definitely present at the Russian front, and never left him afterwards. It was necessary in his search for the architectural dream and he used it to raise a wall between his world and the exterior. At times it produced a difficult, almost unsociable, person, who only revealed his true feelings as a sensitive soul afraid of being hurt, to his wife and his heros - architects like Wright. He nearly always used music as a filter, behind which he could concentrate in isolation and in privacy. He especially liked Bach, whose music he conceived as a flowing river or vast forest, without beginning or end. Beethoven he found to be too grandiose and finite. His art, like Bach's, was a ceaseless search for a fleeting, short-lived motif. He would listen distractedly, intent in himself, like the music that I believe created his space, his experience and his existence.

ON HIS METHOD OF ATTAINING KNOWLEDGE. PLANNING AS A UTOPIA

If the architect's peculiar way of acquiring knowledge poses serious problems for theoretic interpretation, then the Mendelsohn case very probably can be viewed as one of the more significant paradigms. Because, if in nearly all the best examples the course suggested by the drawings seems to be strewn with doubts, in Mendelsohn it acts as a medium between imaginary visions and constructed forms. There are very few of the architect's drawings lacking an expectant underlying reference to architecturally significant forms. His imaginary drawings, sketched mainly at the front while not strictly forming a "plan", nor a constructive end, nor indicating a function from which a specific feature can be derived, do definitely represent architectural works that display an internal structure that point to his constructive potential. That is at a strictly graphic and exclusively formal level. It matters little that his apparent formality does not make it easy to place him in a conventional architectural slot and that therefore has led some to think of a "visionary" or escapist activity. On the contrary, his vision of a viable future established his really achievable strict Utopian sense, insofar as it was structurally credible and possible to present.

The obsessive nature of his repetitions, elaborated from variations of a formal generic theme to which later were added specific qualities that could be related to concrete proposals, produced a method of appropriation of the latent structure of nature through what was formally evident and of an essentially imitative aspect. These specific qualities were clearly named and catalogued as silos, hangars, factories, monuments, and described as intriguing, dynamic, extending, closed, expansive pictures of waves, clouds, hills, valleys, deserts and dunes.

If we accept this inward-looking procedure as "organic" and its representation as "expressionist", the results of applying comprehensive "reason", broadened by intuition, should clash against the reductionist mechanisms of some of the realities suggested obliquely by "modern" orthodoxies.

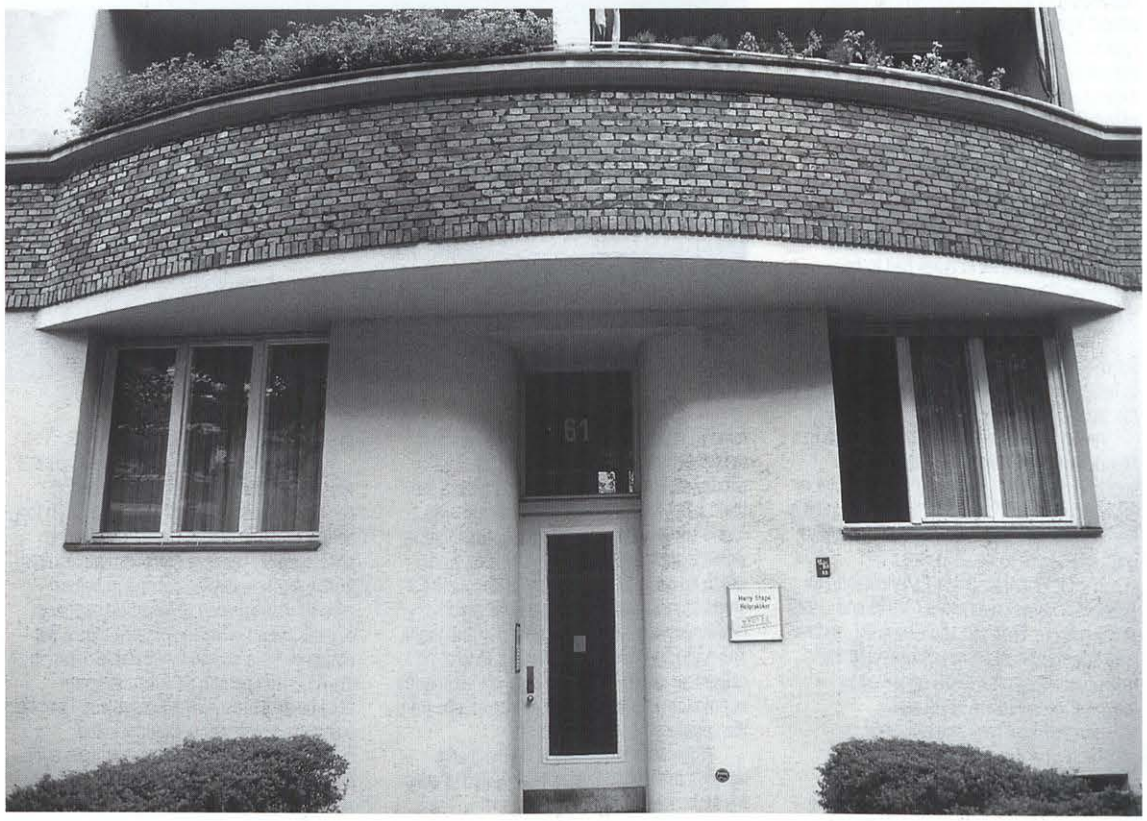
E. Mendelsohn's suggestions, graphically captured in isolation, signified a great qualatative leap forward in the history of architecture. They were elaborated from the last "modernist" gestures in whose sphere the architect was shaped (we recall Van de Velde and to a certain extent the first Wright, masters whom I always admire) to determine their origin (the natural forces sensing the relative relationship between mass and energy), discovering the cause and thus justifying consequences (the line of the modernist movement), and giving sense a priori to a non-formalised future in a different way from futurists and their efficacious "styles". This was not a leap into a vacuum, but a big risk assumed from the beginning with extraordinary awareness.

The way known to Mendelsohn by intuition potentially contained all courses to be explored by him later, their concretion depending on sounds and exterior vibrations.

The lines of appropriation and the interior reality would meet at this point, a reality expressed in his mystic visions. The exterior would be caught by the attention of a musician, capable of discovering the essence of things in order to produce a work whose formal efficiency would be the logical consequence of the "natural" encounter of these realities, basically confused in one. Its adaptability to the peculiar conditions of its protean images verifies its validity, its vitality.

Nevertheless, the viability of this introspective course, requires a very high degree of intellectual tension and a sensitivity and independence capable of enduring a lonely journey. So it is not odd that Mendelsohn's way should not be easily travelled and that his attitude is often confused with his presentations.

His critical position had swayed between veneration and oblivion, probably not accidently, while calm consideration on his method of knowing (knowing again what already existed) had been substituted by the oblique reading of the expression (consequence and not cause) of what has "already been done". Analysing this creative process, linked intimately in his case to his development, is of course more interesting and riskier, but almost always produces an uncertain result. The Mendelsohn way is not the right one if "security" is wanted. Giedion's "forgetfulness, dear Zevi, by no means seems to be casual.



WAYS OF LOOKING AT REALITY

Mendelsohn's view of the world is of decisive importance to his work, not only in his drawings but also in his photography. His powers of observation allowed him to reflect with great efficiency on such culturally diverse countries as the United States and Russia in the second half of the 1920s. His photographs, published with great success in two magnificent books with the architect's interesting comments, reveal sights that were then astonishing to European eyes. They show the great fusion of opposites, captured in their essence. It is precisely his "way" of seeing things, just as he attempted to catch a reality as it was forming in his drawings, that which led him penetrate the "object" and display it with extraordinary efficiency. The subjects chosen by the architect were usually everyday events but very revealing of a meaningful reality close

or contrasting in form with his own interior vision. For example, Mendelsohn discovered some of his dreams built into American silos, and the energy of that society reflected in the factories, and the drama (again the latent crisis) of inevitable change. To catch a glimpse of the future from a disturbing present, accentuated an anxiety whose photographic expression exposed the difficulty of the visual means to capture a reality that was about to explode. However, the architect was preparing a reconstruction of a vanishing world, planning his own Utopia without respite.

The reporter in Mendelsohn provided clues of the positive aspects, of the reconstructed future and of the pieces that could be recovered for use after the storm. The photo shot provided him with a setting in which discontextualization selected fragments, or snapshots, with regard to his own temporary and spatial energy. Photographic relativism is similar in this respect to drawing in its attempt to capture a fleeting idea. For this reason, I believe that one must understand his drawing as "parts" in flight; not contained in themselves and isolated but chained in continuum, always in a process. So they are never described as finite. And that is maybe why they tend towards the infinite.

The technique of reproducing the drawings is much more coherent if the whole collection is assessed, giving value to the succession of approximations and focuses as though they were sequences of a movie, complete with their changes of angle (or shots), only understandable in the view of the whole. That many of the elements have enormous visual value has only meaning within the larger context of the global idea reflected in some photograph (or drawing) in which accident has underlined the fascinating aspect in an unexpected way. One can only wonder what kind of films E. Mendelsohn could have made.

THEMES AND TYPES

For Mendelsohn architectural themes were basically a question of character. They did not depend so much on their functional condition as on what "they wanted to be" before being.

He conceived forms that he called factories, silos, and so forth that "appeared" to be silos or factories because they wanted to express the corresponding idea. Naturally (in a natural way), function adapted itself to form that did not follow it, but on the contrary, in this case preceded it.

As Mendelsohn dominated the "will of form", the notion of type is not pragmatic but symbolic, especially when he "invented" an architecture for which he did not accept immediate tradition.

His extraordinary fascination with the new that he wanted to make coincide with progress, led him to search in his character for qualities on which form could become a reality. So those that he pursued looked for continuity and movement as determining qualities of contemporary time, applicable in a greater measure to the buildings that most clearly were representative. Those, which in a historic sense, reflected new times. However, creative procedures, the balance between opposites, contrast and counterpoint, revealed the "cultural inertia" in which the architect's knowledge was always trapped - a "baroque" way of creating, reinterpreting the dynamic intuition of flight. In some particular creative "styles" this "baroque" procedure is revealed with greater force: in the use of the "judgemental" line for the single-flight spiral stairway, and in the redundancy of the handrails in the final support (their course moves inevitably downwards while the shank line goes upwards). The idea of a tall object (tower or chimney) is converted into a skylight/smoke escape that counteracts in series the succession of aisles. The vertical or horizontal sign counterweighs or underlines the horizontal stratification of the luminous strips, facing inwards during the day, and outwards at night.

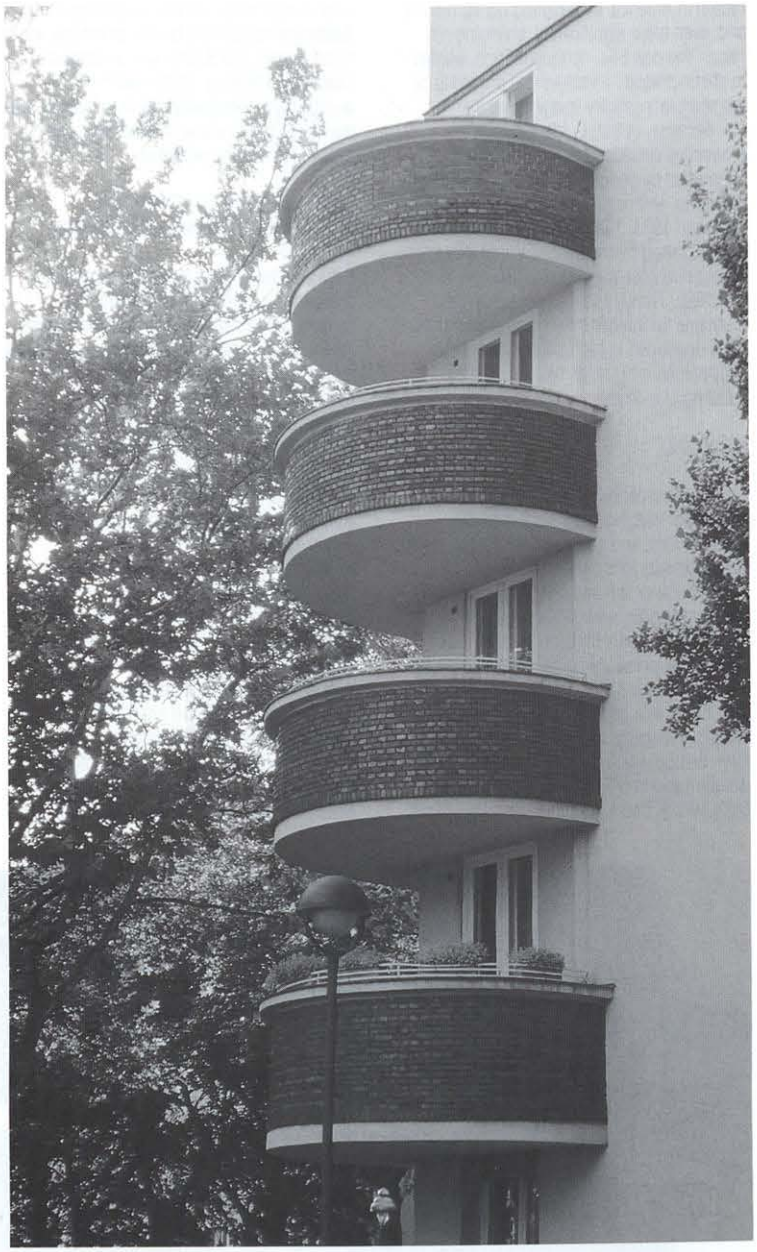
Tricks in the end, "learned" and transformed to the service of an "intuitive" and unknown form. It is the double scale of the present, near at hand and memory, and the future, in flight and being planned. The near-far temporariness that necessarily repeats itself in advance through experience, is translated into spatial terms in detail and the setting in which it takes meaning.

Figure-background and the corresponding relative value, form the scheme of the creative continuum of an architecture whose theme is almost indifferent to the norm imposed from type and poses above all as a prior question the notion of significant Form, and the expression of its own character - the character of form facing the form of character - the function of Form facing the form of the function. This dialectic inversion was disturbing and elegantly subversive. However, in the development of some themes, especially in the final stages of his exile, a pragmatic adjustment of themes to types had to be attempted. Something that he had already faced in his early career as an industrial architect.

In this sense, the American synagogues are of special interest. A convincing solution to the problem, however, was interrupted by his death.

Among the dominant motifs to which E. Mendelsohn dedicated special attention, applying his formal visions to the character of the building, industrial architecture occupied a leading position. Examples are the Leningrad and Lukenwalde textile factories.

The large stores built by Mendelsohn for Schocken, completed between 1926 and 1929 in Nuremberg, Stuttgart and Chemnitz, and for Petersdorff in Breslau, radically altered the type of building, until then conceived as "palaces" of fashion. A good part Mendelsohn's success and universal popularity was due to the modern interpretation of these types of building in which functional aspects and elegance went



hand in hand and displayed themselves in a decisive form in the horizontal sides of windows of indefinite length and those of the blind pane walls of intermediate brick. The round signs with solid, practical print together with the staircases, were the elements with which he completed and created the plating strips of these fantastic façades, in which movement was reflected at both day and night. The night show of the illuminated strips caused an unprecedented sensation among the population who felt they could not escape from the suggested consumerism.

When Mendelsohn took up the theme again in the United States he only had to adapt the staircase of the European model without making any other significant changes.

E. Mendelsohn's religious architecture was first produced in Könisberg's Jewish cemetery. Savagely destroyed by the Nazi fury, all that remains of this creation are period photographs. The idea of its volume resulted from the much studied creative schemes present in his drawings based on opposed objects placed in balance that reinforce the notion of hierarchy and immutable order. In his American period, however, religion became an almost exclusive subject. Then he planned up to seven synagogues and community centres, of which four were built, apart from the unfortunate monument to the victims of the Jewish Holocaust.

In the synagogue series he ended up producing a model that apparently had no precedents in the United States. The basic idea attempted to reconcile two opposites. On the one hand he created a fixed hierarchy according to a symmetric and axial design, with a final formal climax of the visual and ritual experience, producing a dominant vertical element in the composition, and the flexibility of a floor that served for both everyday use as well as for large meetings. On the other, a closed community centre around a common open space constructively introduced variability on the dominant axis. The organisation of the floor plan in sequence towards the altar in such a way that the successive spaces could be rearranged for assemblies, was a novelty in these type of buildings that since then have become standardised plans. Among the possible precedents, I think one would have to look at the open-air Mexican chapels that he probably saw during the inactive American years between 1941 and 1946 when he was named honorary member of the Mexican Architects Society.

The flexibility of the floor plan was achieved thanks to clever mobile wall mechanisms and the use of fabrics and panels that like in early temples or theatre stages are able to divide space in a way that is the most required.

It was precisely in these temples that Mendelsohn's understanding of the perception of space became more evident than elsewhere. The changes of altitude and the tricks of light (whether through a skylight or from above) allowed him to produce some emotive ideas without leaving aside cold reason, far removed from the effects of primitive religion. He seemed to place greater emphasis on faith in reason than in mystery. Anyway, the series of his American synagogues whose colophon was the first project for the six million Jews exterminated by the Nazis, deserves greater attention than it has been given so far, eclipsed no doubt by the brilliant German period. The synagogues and community centres in St Louis and Cleveland (both 1946), and that of Washington (never built), Beth-El in Baltimore (only partially built), Emanu-El in Grand Rapids, Michigan, (all from 1948), Mount Zion in Saint Paul, Minnesota (1950) and Emanu-El in Dallas, Texas, not built either, and the Riverside Park monument in New York (1951), constituted a sequence of variations on a theme that has rarely been seen in the work of a master, and that was built moreover in a very short time.

E. Mendelsohn's work seems to centre on his different periods, on dominant themes and their variations among which literally atypical works stand out, such as counterpoint , that also display the possibilities of the application of the basic motif to diverse themes.

The most characteristics aspect of Mendelsohn's creative drive can be understood as movement, the continuity of surfaces, the unification of the parts in a unity of a higher order; the counterpoint of the elements on a continuous structure, underlying both the complexity of visual relationships as the establishment of the limits of the figure on an urban background and on the base of the surface plan. Getting to the bottom of each case, a motif of identification is superimposed. The symbolic nature of certain conventional elements in the religious buildings (the tables of the Law and the candelabrum, joined as light and spiritual guide) is adopted by the posters and the illuminations (in a night view that makes the presence of the buildings be sleepless and resolves the passage of day-night in continuum) in the shopping centres without any particular expressive Form, in an anonymity that permits its use as an incipient massive container, indifferent to the merchandise (the Stocken buildings), against the expressive form of the factory (Mosse) and the laboratory (Einstein, or Herpisch) that aspired to transmit the idea of the New as opposed to the novel.

Fascination with unique Form and the "anonymous" packaging, sparked a struggle to define the Idea underlying the initial drawings that were to some extent expiatory.

If his "continuous" façades tended to appropriate the borders with an urban, and therefore, infinite touch, the laterals also proclaim differences with a deep sense of "distinction". The Berliner Tageblatt building is probably the best example of the ability to include previously existing elements and adapting them as a "distinct" part of a whole that "surpasses" them and produces an increase according to a "stratified" generic image.

The corner presents the rupture of the two levels in which it is contained. The various possibilities for its treatment, either as a limit or an element that articulates the adjacent levels and the presence or absence, in negative or positive, of their uniqueness, were explored by Mendelsohn with unprecedented success. In this way continuity was established without ruptures towards the borders. The treatment in strips, in layers, of the façade plan, increased the sensation of flight and accentuated the ascending prominence of the virtual corner-façade. The Columbushaus building and Schocken apartments were the climax of this experience.

At the other extreme, the accentuation of the corner element as an ascending tower, was contrasted with horizontal elements that, on lateral levels, were extended in an attempt at impossible continuity. This solution, that can be seen in the Schoken stores, was probably his most enduring endeavour. In the Einsteinturm, he established the balance between opposites, Mendelsohn's strongest formalised vocation.

THE DESTROYED WORKS

Many of E. Mendelsohn's major works were destroyed. Apart from the Mosse Pavilion (1927) whose original destination was transitory, soon afterwards the 1920 Lukenwalde factory would disappear in 1925. The existence of the Könisberg cemetery (1926) did not last much longer and it was destroyed by the Nazis in 1938.

Victims of the Second World War were the Helpirch Furrier (1924) and the Deukon Haus or Columbushaus (1929). The latter, however, was reconstructed but finally demolished in 1953, the year that its creator died.

The Woga complex and its Universum cinema, reconstructed after being destroyed, had a different fate. In this case, the old cinema, now an experimental theatre, suffered another kind of destruction, its probably irreversible alteration.

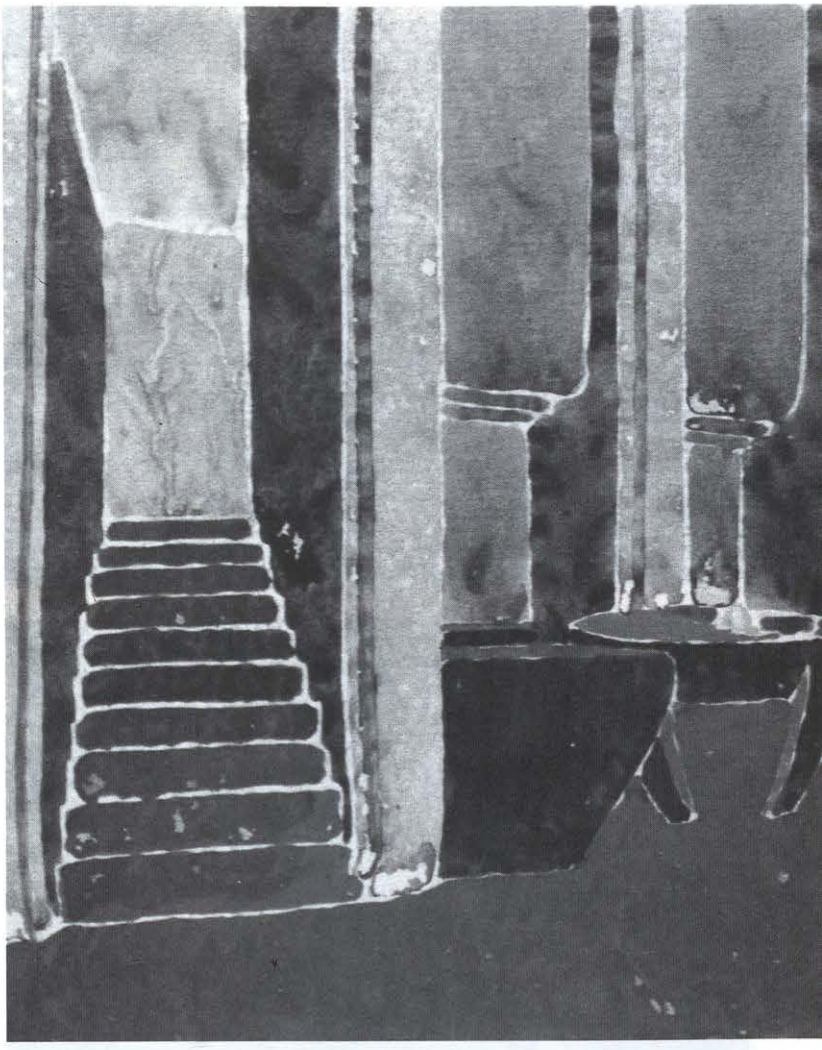
Deserving special mention are the disappearance of the possibly most important Shocken constructions in Stuttgart (1926), destroyed in 1960. Also lost because of substantial changes are buildings in Nuremburg (1926) and others demolished Duisburg.

If the radical transformation of the Maimónides Hospital (1946) in the United States or the unfinished Berlin work for the Metalworkers Union is added, it can be seen that little of Mendelsohn's planned work remains. The value of what is still standing has multiplied because of its scarcity and, therefore, urgent and global protection is needed for these monuments.■

The man who enclosed space in an arch in the sky

The drawings of Erch Mendelsohn

Helena Iglesias



There is probably no graphic work of architecture that is so recognisable, so identifiable, so often published and apparently so well-known as the work of Erich Mendelsohn.

The eyes of architects and architect students around the world are certain to be able to recognise and attribute the authorship to those clear ink lines that stitch the paper with dots; those tight curving pen strokes that leave accumulated ink at the extremes; those enlarged and black stains like charred photos that shape compact buildings; and, especially, those pencil, carbon or pastel scribbles that mark the architectural form where they have crossed the paper, so definite and precise as though they were sealing the building. These scribbles that have filled books dedicated to the architect with thousands (literally) of plans for buildings and threaten to invade others books of his time in which he is included among many other architects.

"It seems" that we know everything about these drawings, "it seems" that it would be impossible to add anything new to what is already known, whether the graphic technique itself or the relationship with the architecture produced is being referred to.

"It seems" that we can define this production in a few labels available to all the enlightened. They are "small sketches", layouts of types or models of buildings; preferably they are linear and perspectives and are closely related to the form of architecture from which they derive. Furthermore they are spontaneous and symbolic.

"It seems" also, that their huge number (are they a legion?) and the countless variations of the curving bodies that they reflect can include many other alien and later architectural shapes from which they derived, and are thus the seminal seed.

Visual game enthusiasts, a breed that currently proliferates among writers of architecture, have more or less accustomed us to their ability (purely visual and often not even that) to discover Mendelsohn influences in Ronchamp, in the TWA Terminal, in Sydney and in many more places.

So all this and much more is "apparent". But, of course, what is most "apparent" is what we all know are those little sketches that we all recognise each one of these little sketches and don't have to consult an archive because they are available in Bruno Zevi's book.

It's a marvellous book, because along with the biographic details there are many precise references to conserved letters, posters, plans, and so on, including Louise Mendelsohn' collection of 1,482 drawings and, in the Index of Illustrations and Catalogue of Mendelsohn's drawings, a description of 707 plans or photographs reproduced in the book, the majority of which belong to the widow, but that also come from other very-well identified sources. And all are accompanied by technical illustrations and measurements.

As I say it is a marvellous and essential book that provides more details than any other previous or later work. And still it is a relatively confusing book, a book that includes errors not exactly through the author's fault, in my opinion, but because of very different reasons.

This book contains its own section of pictures, a graphic discourse, that forms pages (and consequently selects information) by virtue of the apparent whim of a designer who pays greater attention to the page than to its contents of drawings, plans and photos.

This is done in such a way that the neatly ordered pages, chronologically arranged, are made up of graphic "bits and pieces" that are very different from their relative measurements and presenting a formal account that is more invented than factual.

As examples I will take a couple of pages at random (as the problem exists throughout the book). Pages 38 and 39, headed Projects, Russian Front (1917), gather 17 drawings of varied forms in an ordered puzzle of container rectangles, none exactly equal to others, but similar.

The index that has already been mentioned, informs that all the drawings are done in pencil, except for three which are drawn in ink, and that they measure between 12.4 x 12.4 centimetres (the size of seven of them) for the largest and 3.8 x 6.3 centimetres for the smallest

So the smallest drawing, number 17 in the pages under consideration, is in reality reproduced in the largest size, 7.5 x 11 cms., that is double the original, while the drawings that in fact are the biggest, are reproduced in the smallest size. But there is even greater confusion in this artistic puzzle of rectangles because drawings of the same size are reproduced together in different sizes.

This is just an example, but it is constantly and repeatedly noticeable. Throughout the whole book, drawings have been reproduced in the size that the graphic designer seemed to consider convenient, whether they were big or small, without any apparent proportional connection between them. They have been presented capriciously so that only constant and tiring checks with the index, harmful to the binding, allows researcher to get a complete picture of the formal relationship that exists between drawings on the same subject.

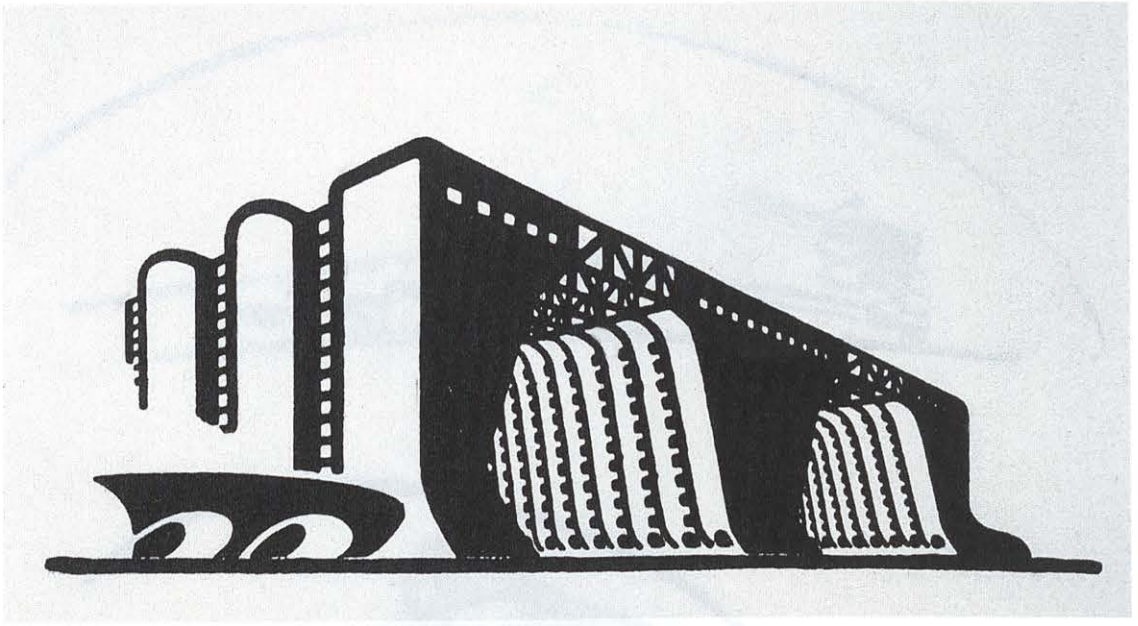
The pages themselves explain in notes to the text by Zevi the difficulty of arranging the formal relationships between architectural bodies collected in the work, and the determination of the author to complete this task from the point of view of the architectural forms. And this justifies the carefully considered decision, taken because cataloguing done in the 1960s with drawings followed an arbitrary and not a chronological order, and therefore non-correlative numbers at times correspond to "consecutive" drawings (belonging to the same formal series) which made the ordered structure of graphic work extremely difficult.

Added to this cumbersome arrangement, distorted perception and the understanding of the book, are other snags regarding the drawings. For example, the graphic "recklessness" of displaying them as negatives (white lines on a black background), when they should be black on white as should be the case with those on page 19, numbered 1, 2 and 4.

And the most irritating, but forgivable, muddle, that of reproducing in black and white drawings that are really of several colours, is understandable in a age when the development of graphic arts was not as easy, as excellent nor as economic as at the end of this century. And this problem is not cleared up in the Index of Illustrations, since the bare word "pencil" does not include any explanation on colour or the number of different pencils that have been used in a particular drawing.

And the most inexplicable difficulty also almost impossible to clarify, centres on the inverted positioning of the drawings, that is looking leftwards or rightwards, although they are apparently not only of the same architectural form but of the same drawing. And it is not easy to decide on whether one is dealing with several or a single drawing that has been "treated" graphically in various publications in a different manner, especially if it is taken into account that some had been published previously in various places, and with different graphic treatment.

All this attempts to show what was said at the beginning: that "it seems" that we know very well a graphic work that is in fact difficult to know in depth, and therefore not too well known in its true dimensions, techniques, relationships and meaning. We contemplate the features that are traditionally understood as the most apparent of these works, the most frequently mentioned and the ones that have



been the objects of our greatest attention. I refer to those that define the drawings as spontaneous and symbolic.

It is impossible to measure the quality of the graphic expression without strictly assessing the size of the drawing. It is even more impossible to understand the expression made by hand when the drawing is double, triple and even quadruple its original size.

The 1915 drawing of a silo that is in red, blue and yellow and magnificently reproduced in Erich Mendelsohn, Gebaute Welten, serves as an example. There it is reproduced in 20 x 17 cms., compared with the 15.4 x 11.4 cms. and blurred black and white image of Zevi's book that accentuates the sky tone (that we know to be blue). Its real dimensions of 12.38 x 11.75 cms. makes one believe that there exists greater precision in the stroke as it is much finer than in the great reproduction, that has been completely lost. And it has been lost in both reproductions, in one because of the increase of size and in the other because of the graphic loss of colour and tone, so the real expression of the hand has certainly not been understood from these details. And the same has occurred with a significant number of drawings.

Size, another of the features seen as traditional, must be contemplated in precise and exact conditions. This is usually represented in little sketches, but not always. And precisely those that, for historic reasons or for being published more, have become better known are often drawings of sufficient format, or reworked drawings completed specifically for the Berlin 1919 Exposition and that are, therefore, outlined or projected from earlier drawings with the consequent non-symbolic and graphic concentration that goes with tracing.

They are not odd formats of 20 or 30 cms. in any direction, which anyway are not enormous dimensions, but they are a long way from the traditional size of these drawings that are about postage stamp size.

However, the great majority are little sketches of small format, or little scribbles, whose theme or subject is generally the volumetric form of different compositions of interrelating elements, very often establishing themselves in series that usually have as a beginning or "motif" that special generic building, or some particular type of building (when they are fantasies). And they are drawn in perspective.

Two points are immediately clear: the vast majority are drawings of exteriors (or what comes to the same thing, a lack of drawings of interiors) and there is a fairly radical discontextualization that limits the support ground of these volumetric compositions to some simple line, if it exists, and thus vegetation, the lie of the land, and what we could call the boundary, are left out.

Regarding this marked absence of interior drawings it should be noted that some of the pictures that have been published most often (and even been better published) make the interior/exterior drawing relationship of the collection appear different as they have been set out with a good number of pictures of interiors.

I am referring to the 1915 Becker House in Chemnitz watercolours that exist in four versions and are drawings of interiors and that, together with two more pencil drawings of interiors and four drawings of the exterior, make up the total plan of this house.

These watercolours of interiors have medium-sized formats from 29.2 x 27.3 cms. for the largest to 23.2 x 23.2 cms. for the smallest, and a very colourful formal layout of great impact. They have been widely distributed in practically all the Mendelsohn bibliography, to such an extent that their images have contributed to weaken the "almost all exteriors" conception of the collection. But the presence of exteriors is overwhelming in the collection of drawings, and is probably related to the concept of space in Mendelsohn's architectural thinking.

In the two Mendelsohn conferences that form the bulk of his architectural thought and best summarises it, space was always upheld as a desired value and a necessary end. However, the particular understanding of this space would be what could shed some light on this way of projecting "from outside".

In the 1919 conference, the first, after criticising other architectural ideas that he disliked, especially those concerning "crystalline" forms and concepts, he said: "Intention is an illusion even when in the Czech Werkbund's exhibition, the transformation of architectural elements into spatial geometric forms is transported to bare essentials and crystalline expanses". He made part of his thought clearer when he said: "the architecture of 'sketched representation' is no substitute for spatial truth".

Many references to the double concepts of "mass and light" were quoted: when there was "the satisfactory relationship", when in bad company because light was an insufficient element to emphasise the "energy" of "tension" of masses. But while he analysed the architectural direction that he believed dominant at that time ("the disciples of the world of glass", "the analysts of the elements of space", "the seekers of material and construction forms") it became clear that all these analyses were being carried out with the use of concepts that led to one conclusion: for Mendelsohn, space was "depth" (meaning volume or deep mass that is developed in three directions) rather than "emptiness" (interior space).

As evidence of this repeated sentences can be taken in which the "spatial body" concepts are used in the sense that has just been explained, and the fact that throughout this first conference there were no mention of buildings used as examples where concepts of interior space were included. All such comments were limited to the consideration of the nature ("heavy", "tense", "unbalanced", "transparent" and many other terms) of the mass and construction elements, and to the inclusion of the concept of function.

In the second conference of 1923, there were also many mentions of this peculiar conception of space, and even allusions that can be read as a statement of what the deep

understanding that Menelsohn was juggling with is.

Regarding this matter I would like to draw attention to sentences like "this theoretic form only has external relationships with space, even though its representation in perspective concerns itself with it" that strikes me as being revealing of the particular and very personal association that Mendelsohn established between what in our present conception is understood as space, depth, perspective, and even volume and form.

But whether this is the reason that Mendelsohn's drawings are mainly of exteriors or not, the case is that they are. Only about 100 of interiors out of a collection of 1,500 makes an approximate proportion of five per cent, and that is really a very low amount.

And one still has to bear in mind that in the final American stage, the group of drawings contain a great profusion of interiors, some that could have been "presentation drawings" that are fairly well formatted . But there are also many procreative little sketches, with the same style of a plan or suggestion that we had become accustomed to in previous productions, but now with many more interior views.

The far-sighted Zevi, so precise with details as he was radical in interpretations, provided an explanation for this occurrence, saying: "spatial flexibility is an American conquest that applies as much to grandiose community complexes as it does to domestic scales," when commenting on the sketch of the interior of the Russell House, that in fact is a drawing that does not in the widow's collection.

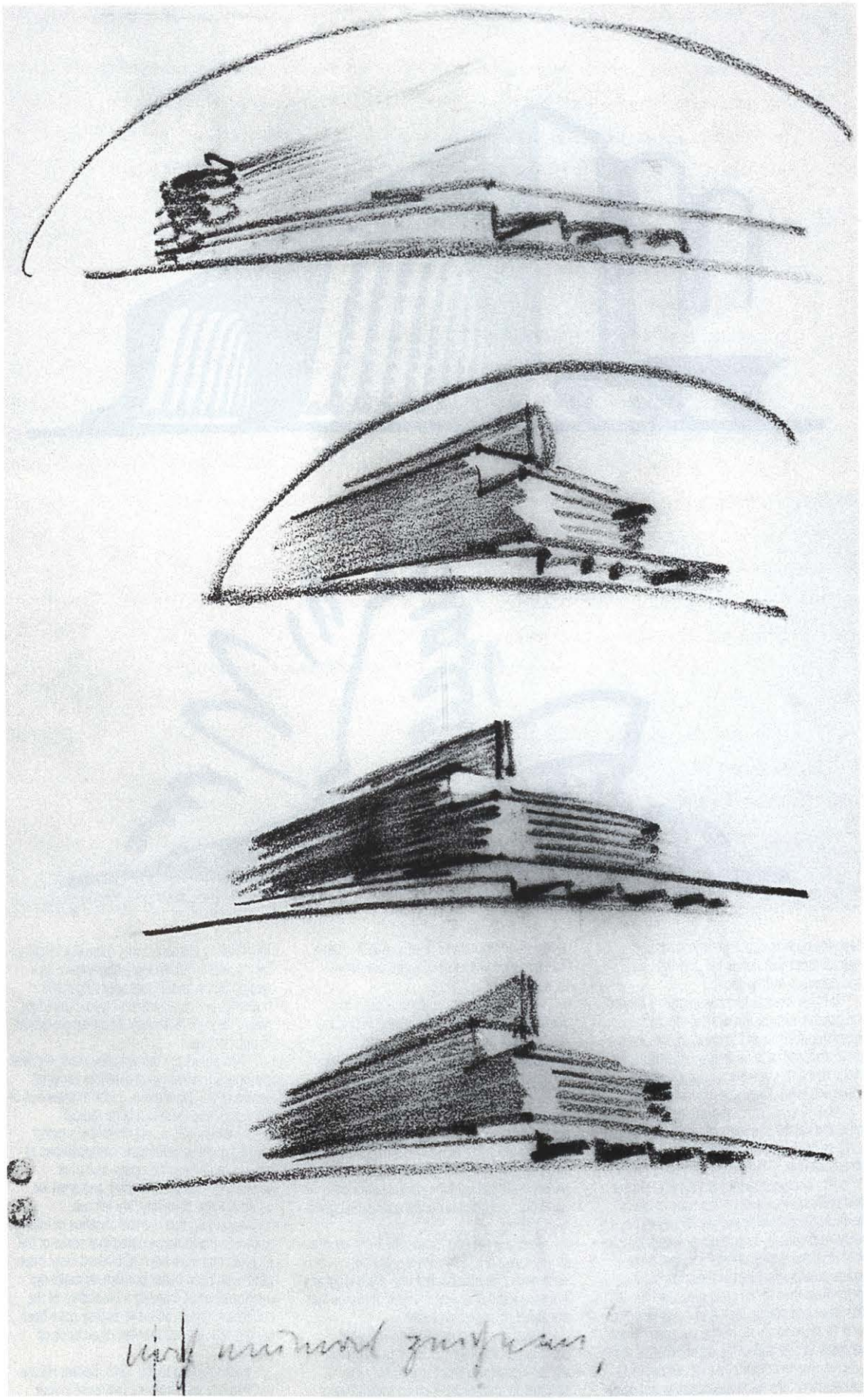
And Zevi clinched the American spatial fluidity "apprenticeship" argument, adding: "In that first journey he had looked at the great factories, the silos, Chicago skyscrapers, but the flowing spaciousness of domestic architecture had not been an object of his attention then".

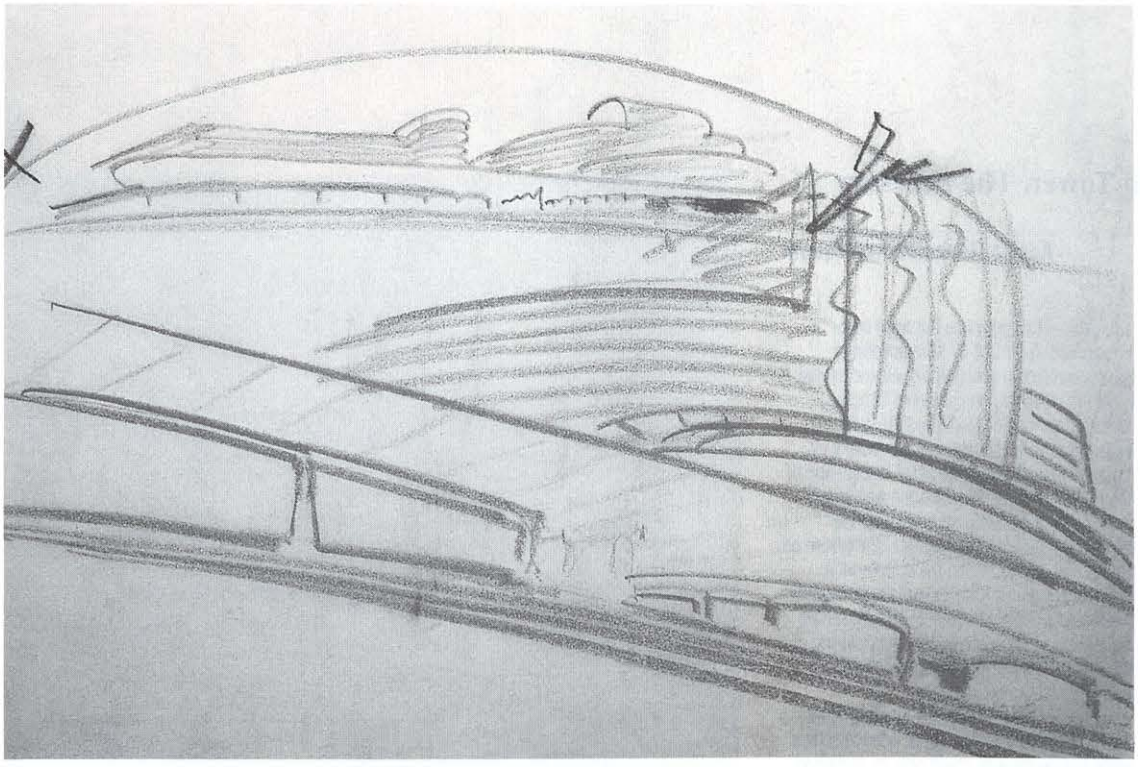
As to the the other characteristic already mentioned, the "discontextualization" of drawings of exteriors, barely supported on some line that represents the ground, other considerations that I find interesting must be added.

Above all, this fairly radical absence of any ground or boundary irregularities whether they were alterations or folds, urban streets, any type of vegetation, or even "projects" of alterations destined to establish the transition between the projected architectural body and the pre-existing support of the ground, have a chronological place in Mendelsohn's activity that is understated and contradictory.

I am referring to drawings completed during his stay in the future Israel, that are drawings that are nearly always contextualized, and contain inclined ground, gardens and vegetation, vegetation that at times is more dreamed of than real because its the vegetation of an oasis rather than that of a desert.

The trees of Jerusalem's Hebrew University, for instance, that change into palm trees in some other project of the Palestine





period could possibly form part of a desired imagery, the characterisation of a promised land that could respond with cheerful expectations to the depressions of the terrible situation experienced previously and confirmed in the disappointment of his stay in England.

These general characteristics of "absence of surrounding" should be considered further, given that in his mature work (which is, as is known, an very ample urban work) the graphic isolation of the architectural forms contrasts sharply with the very shape of these forms that are conceived from the point of view of their position in the city.

Paradoxically, the corner curves that he calls "dynamics" conceived and projected to "follow" the urban traffic flow and give character to the structure of the city have been drawn on an isolated document, without any apparent interaction with the context that defines them and, consequently, excluding the possibility of deducing from the drawings any cause or origin for these particular formal selections. In Mendelsohn's own words, the character of the city converts "the street, depending on the speed of traffic, into a horizontal directional track that goes from centre of gravity to centre of gravity and, therefore, the future city is also a centre of gravity because, if it is viewed with a stronger magnifying glass, it is really a tridimensional system in the strict sense".

This suggests a sophisticated method of projection, a method of absorbing previously all kinds of data (situational, functional and constructional) that are later used for the creation of architectural forms, but are not reflected in their graphic illustration, because they belong to the dark substratum of primary motivations and not to the most superficial levels of apparent formal relationships.

The little experimental sketches acquire a very precise significance once this explanation is accepted. They attempt to graphically define what could be the best, most significative or most expressive image of the project's details, and for which it is necessary to find the exterior form that could be the best or most characteristic.

And in this same sense some of the sentences of the conference can be understood; those explaining his or other works of architecture from formal and exterior assumptions, handling concepts concerning bigger and better expression of tensions, forces and masses, and so forth.

The placing of these "little sketches" help this understanding, because they often accumulate in large numbers on only one piece of paper, adopting completely independent relative positions, without the ground lines maintaining respective parallel directions. This gives a chaotic appearance to the ensemble because the different little sketches appear upside-down or downside-up, or lying on their sides.

A theme has emerged that has provided a title for these notes from looking at and observing this collection of drawings: the theme of the arch that encloses some of the drawings, an arch traced on paper over the graphic image, that is an arch in the sky.

The first arch that I found belongs to the so successful mature period, the time of the town buildings in Germany and, more precisely, to the time of the drawing of an interior of the Berliner Tageblatt that Mendelsohn constructed in Berlin between 1921 and 1923 that turned out to be an isolated act.

There is nothing like it in previous drawings, except perhaps some scribbles "in the sky" like rays or light projections that appear in imaginary projections from the German period after the war and, therefore, very close to the time I am considering.

The same rays or scribbles in the sky are found in some well-known drawings belonging to different phases of the Einstein Tower period. But in any case, I believe that there is an important difference between these expansive rays traced in the sky and the enclosure suggested by the arch in the Berliner Tageblatt drawing.

The thing is that the arch presented like this began to appear with some frequency and seemed to adopt a signposting role in these first appearances. Some of the drawings that are assembled on a piece of paper appeared to indicate by way of choice with this arch, or segment of a circle, to the corresponding formal volumetric plan that the drawing represents and that was thus the plan selected.

This also appears to be the meaning of the arch that appeared in some imaginary projects of 1923, that are understood to be musical scores, and this interpretation is reinforced by the lateral positioning of the arch whether to the right or left of the drawing and not in the upper part.

The arch could be understood as associated, in some way, to the formal change that took Mendelsohn from the completely free and fluid curve forms to the massive facetted, jagged and stratified forms that characterise his town constructions, precisely around these years and until the end of his German period.

So, the arch was to become a signalling or selecting system to be able to pick one or several of the little sketches that would be needed to the same extent that the new volumetric forms were much less well known and, therefore, required a different kind of selection.

But the arch rapidly came to be seen as the author's signature, first drawn without closing on the ground line in the shape of a border curve, and even occasionally treated artistically as it appeared in the drawing for the C.A. Harpich Furrier in Berlin (1924) that contains an ink stain placed almost in its centre. It begins immediately to support itself on the ground line before gradually enclosing the whole drawing in a half bubble of isolation, and is accompanied in the lower right corner by a scribble of a signature thus converting the whole into a closed system that is signed.

Tracking this arch in the sky throughout Mendelsohn's graphic work produces many interesting facts, some of which are open to deep psychological interpretations.

I have already said that its emergence coincided with the start of the period of constructions in Germany, a golden age that in four or five years (by 1926) converted Mendelsohn's studio into a complex where 40 people worked and the architect himself spent part of the night at the drawing board while Bach music played at full volume. So, the arch could in some way be associated with professional success.

But tracking the arch produces many surprises, one being its total absence from a very personal project that very dear to him - the house that he built in Berlin for himself and his family.

A wish finally fulfilled, that of possessing the house he had built after so many years of owning dream houses and presenting Louise on her birthday every year a plan for a house. Perhaps as this construction was a calm and meditated undertaking, neither disturbing nor troubled by doubt, it could be understood that the isolating arch that could have appeared as an affirmation, was not needed here. But in fact, the Berlin house would be practically the only project without an arch in the sky. The drawings began to become more and more enclosed within themselves until the American period when they consisted of isolated bubbles sharing paper and the technique of completion, but with each one showing a voluntary affirmation of unity and authorship, reinforced by the signature that followed the trace of the arch.

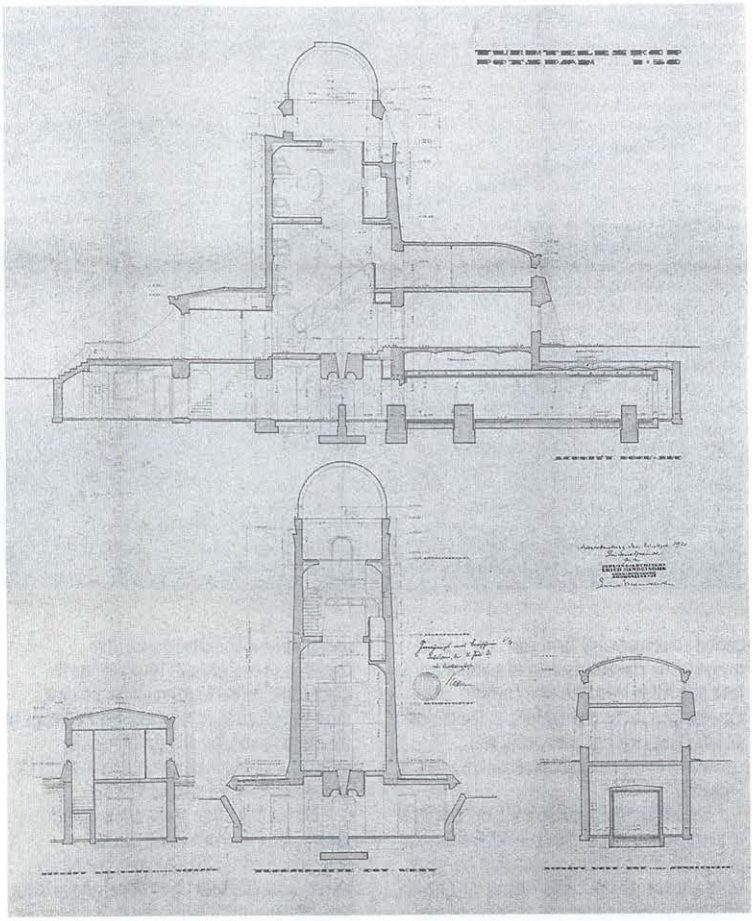
And furthermore, at the foot of this signature in the right-hand corner, inscriptions explaining characteristics of the project appear in a tidy rectangular bloc that forms a graphic "blot" and completes the drawing.

Even Mendelsohn himself, the nomad who retained sufficient will power to move from one exile to another to repeatedly start and finish his work, became as wrapped up in these bubbles as the forms that he designed. Just before his death he told Hans Schiller, his assistant in the United States: "Look at my drawing, everything is in it".

This was so true that the dynamic volumes that were his primordial architectural interest, the tensions of mass and light that were necessary for his conception of the architecture of the future, ended up so enclosed in a piece of space as he himself was in different residences and countries, following a forced and dramatic destiny, from freedom of expression to self-absorption.■

Mendelsohn and the Einstein Tower. The necesary nightmare

Adolfo González Amézqueta



On September 4, 1921, the Berliner Illustrirte Zeitung, then one of Germany's leading and top-selling publications, printed on its cover one of the first photographs of Potsdam's Planet Observatory, already named the Einstein Tower. The basic final external parts of the building were near completion - they were finished in October of that year - but the interiors that were to be done in 1922 still remained incomplete as well as the scientific equipment that did not start operating until the inauguration in December 1924. However, the building immediately became one of the emblems of the "new architecture".

The powerful and surprising image of the new observatory aroused considerable attention, directed to some extent towards its creator, Erich Mendelsohn, a young, 34-year-old architect who was practically unknown except in some closed avant garde circles of those years. The extravagance of the unusual form of the new construction, transferred to its extravagant creator and an alleged member of the eccentric new art groups, was combined with a similar show of extravagance by the young scientist Albert Einstein for whom the building was named and by his new scientific theories on relativity that in previous years and in the future would stimulate the highest level of both scientific and popular discussion. Furthermore the Einstein Tower was in fact practically the first monumental work of any significance constructed by the new Republic after the war.

At the time that the external work on the tower was being concluded, Mendelsohn, who would be repeatedly identified as the builder of the Einstein Tower, was practically just beginning his professional life and receiving orders that would increase and come in faster after the tower. The Einstein Tower was his first major constructed work, but it was also a real turning point and, in a certain sense, marked a time of crisis in his work.

Apart from a temple in the Jewish cemetery of his hometown Allenstein (now Olsztyn in Poland), significantly but not literally, the only work that Mendelsohn saw completed before the Einstein Tower was the Hausleben Insurance Company building in Berlin, built while he was working almost obsessively on the observatory. When the basic plans for the Einstein Tower were finished and published, Mendelsohn had the Luckenwalde Steiberg-Herrmann hat factor project on his hands, the last of a series of assignments carried out originally for Gustav Herrmann before the latter became an associate of Steiberg and the final project arrived. These assignments, undertaken from mid 1919 for Gustav Herrmann, the first of his important Jewish clients and one of the Einstein Tower's financiers, were: a collection of working men's houses that were built and still exist in Luckenwalde but were never considered important by Mendelsohn, a garden pavilion that was built without having anything to do with the series of famous fantasy drawings of 1920, and the first expansion works on Herrmann's factory in Luckenwalde. At the time of the completion of the Potsdam tower, Mendelsohn was also working on a competition project for the building in Berlin's Kemperplatz, completed on September 30, 1921, on the double-villa project for Berlin's Karolingerplatz, finished in 1922, and possibly beginning to concentrate on one of his obsessions, the restructuring of the Rudolf Mosse publishing building on Berlin's Jerusalemerstrasse.

Until the unveiling of the Einstein Tower the little that was known about Mendelsohn's work and personality could only by glimpsed at in some brilliant and surprising drawings that were displayed in an exhibition at Berlin's Paul Cassirer Gallery in November/December 1919, under the title Architecture in Steel and Concrete [Architektur in Eisen und Beton].

That exhibition of drawings by Mendelsohn, now very famous and considered as one of the pillars of modern architecture, only attracted a few visitors and little attention at the time. This was probably due more to an accumulation of similar events than to the specific value of Mendelsohn's drawings. Mendelsohn's exhibition shared the same Berlin stage and with little difference in time the now famous (which it was not in its day as was the case with Mendelsohn) Unknown Architects Exhibition organised by the Arbeitsrat für Kunst (AfK) group headed on its foundation in the immediate post-war period by Bruno Taut, Adolf Behne and Walter Gropius. A little later, in May 1920, the second major AfK exhibition, announced as Neues Bauen and translated in the Ruf zum Bauen publication, was seen as a sort of "before and after" with reference to the Mendelsohn event.

Frequently, if not systematically, observers have recognised identical objects and contents in the Mendelsohn and AfK exhibitions, or at least coincidences, such as two equivalent manifestations of the exalted, Utopian and ecstatic fantasy of the avant garde described as "expressionist". Although the two had points of encounter and similarities, Mendelsohn and the main members of the AfK were, however, really different and even opposites. Mendelsohn's graphic, or non-graphic work, his ideological constructions, on the one hand, and those of Taut, Finsterlin (who was often compared with Mendelsohn), Goesch, Golyschef, the Luckhardt brothers and other "unknown architects" and later members of the "crystal chain", had little more in common than a way of expression (imaginary and imaginative drawings) and a strong ideological commitment to researching and elaborating a new architecture for a new world.

As Norbert Huse has rightly pointed out in analysing post-war German architectural modernism, "one of the few to show concern for a serious confrontation with Utopian idealism was Erich Mendelsohn. . . . Mendelsohn did not consider that fleeting Utopias were necessary, only confrontation with reality. Because [for Mendelsohn] new forms should not arise from collective decisions, nor from a new religion, nor from a new flight to the heights of architectural fantasy, but from modifications that are made objectively."

This attitude, so accurately described by Norbert Huse, was already evident in Mendelsohn's conduct in 1919 and, as contradictory as it may seem, in his series of drawings and in the disturbing Einstein Tower project itself. It consisted of the basics, the confrontational and the integration of intuition or "artistic" vision with the concrete facts of a functional programme and, in a very special way, with those of real constructions.

For its content and repeated later publication, this attitude is clearly expressed in the relevant text of the AfK-organised conference held in the Kunstgewerbemuseum in the winter of 1919, coinciding with the Cassirer exhibition, under the title: The Problem of A New Art of Building. Mendelsohn's inclusion in the gallery of participants in AfK activities was probably due to the group's obvious desire to convert, especially at that low time for the group when it was in retreat, rather than a strict understanding between them. In the same conference, Mendelsohn exposed his ideas of the moment and pointed to the distances from and objections to the visionary Utopia of Taut's circle.

In a paragraph that is now fairly well known and quoted, Mendelsohn gave a sort of balanced summary of the innovative architectural currents of the time. He cited three main groups: "disciples of the world of crystal", "analysts of the elements of space" and "seekers of material and construction forms". The first were visionaries of Taut's circle with their symbolisms of crystalline and crystallographic structures. The second were the "artists" who, following the break with cubism, futurism and initial expressionism, were exploring the definition of a new figurative language. And the last, more in tune generally with Mendelsohn's own line form a long tradition of architectural revival with which some of Mendelsohn's "favourite"

antecedents are linked. Firstly there is the Werkbund legacy seeking "technical form" and discussion on it, but also his admired Olbrich and Van de Velde, Otto Wagner, Poelzig, Behrens and, somewhat apart, Wright. He submitted all of them to rigourous criticism, underlining the insufficiency or fragmentation of their results.

The thesis that Mendelsohn upheld was the need for convergence and accord, in short a synthesis, between the characteristics of these progressive tendencies and their significance. But, at the heart of his argument , the proposed accord looked towards a synthesis between "artistic form", and therefore was autonomous and self-expressive and, to a large extent, subjective and emotional, and "technical form" or "functional form" with its specific expressive and symbolic potential.

Shortly after, on May 13, 1920, Mendelsohn wrote one of his usual letters to his wife Louise in which he said "The Arbeitsrat has asked me to contribute something additional to the Neumann exhibition. I have turned them down.

. . . Undoubtedly, you would take the same point of view. You cannot construct a new world with words and pictures."

Development from the initial intuitive concept of the "visions" expressed in his drawings to the determinant, but not exclusive, commitment to "functional" facts can be clearly appreciated in the period before the Einstein Tower and which reached a certain "climax" with its arrival.

Very shortly afterwards, early in 1920, an old idea that until then had been little more than a wild dream began to take shape: the building of Potsdam's planetary observatory.

From about 1914, Mendelsohn had got to know and deal with Erwin Findlay Freundlich on a fairly regular basis. He was an astronomer of about the same age as Mendelsohn and had worked since 1913 in Potsdam's Babelsberg Observatory, being one of the first and most enthusiastic supporters of the theories that Einstein had begun to circulate with considerable commotion. Freundlich, whose relationship with Louise and Erich Mendelsohn was rooted in music (he was a cellist), introduced Mendelsohn to the theories of new physics and thus aroused the architect's interest in a new concept of the world. His scientific background helped with the translation of the performance of the form of "matter" from which architecture is created, an idea that generically runs through a good part of architectural and even the artistic philosophy of those years. Mendelsohn's writings (and drawings) between 1914 and 1920 contain plenty of references on the meaning of relations between "mass", "space", "time" and "light", among other similar questions.

The idea of a "structural principle of elastic continuity . . . derived from the nature of continuity of form made possible by the elastic nature of steel and reinforced concrete", as Mendelsohn would later state, would integrate itself with an "organic" concept of form in which mass, matter, energy, space, time and light would mutually overlap. "The Einstein Tower is a clear architectural body. Having said that, there are reasons why it is not a purely functional body. But it seems to me that no part of it can be removed, neither from its mass, nor from its movement, nor even from its logical development, without destroying the whole," Mendelsohn would explain in his 1919 text. The well-known story about the only brief comment Einstein made when asked about the tower should be added to Mendelsohn's statement. "Organisch," Einstein replied..

All the complicated processes of the Einstein Tower's elaboration could be summed up simply in two expressions. The first: the concept of an image, of a "vision" in the usual Mendelsohn terminology, in harmony with the deep sense of the building's functional programme. The majority of the first sketches made on the Russian front in the second half of 1917 and the first half of 1918 on the observatory theme, inspired partially by Freundlich with whom he exchanged comments by letter, presented an accumulative form of compact domed volumes, some labelled by Mendelsohn as "tellurisch" or "planetarisch". From the now famous Freundlich letter of July 2, 1918, in which he included a description of the "programme" which he intended to carry out, there appeared in the later drawings of the French front, the basic scheme in an almost definitive way: a basement partly buried and an elevated vertical tower, now labelled "mit unterirdischen Laboratorium" or "über der Erde". Almost to the end, Mendelsohn continued to polish, retouch, and experiment with the definition of this basic form that has been maintained; the form, to put it metaphorically as has in fact been done, of a submarine and its periscope. "There is a structural correspondence between the Einstein Tower and a submarine; in both cases the spatial configuration of the whole is adapted to fit with the optical arrangement. . . . So just as the submarine does not float on the surface of the water but in it, likewise the Einstein Tower is not on the ground but in it.

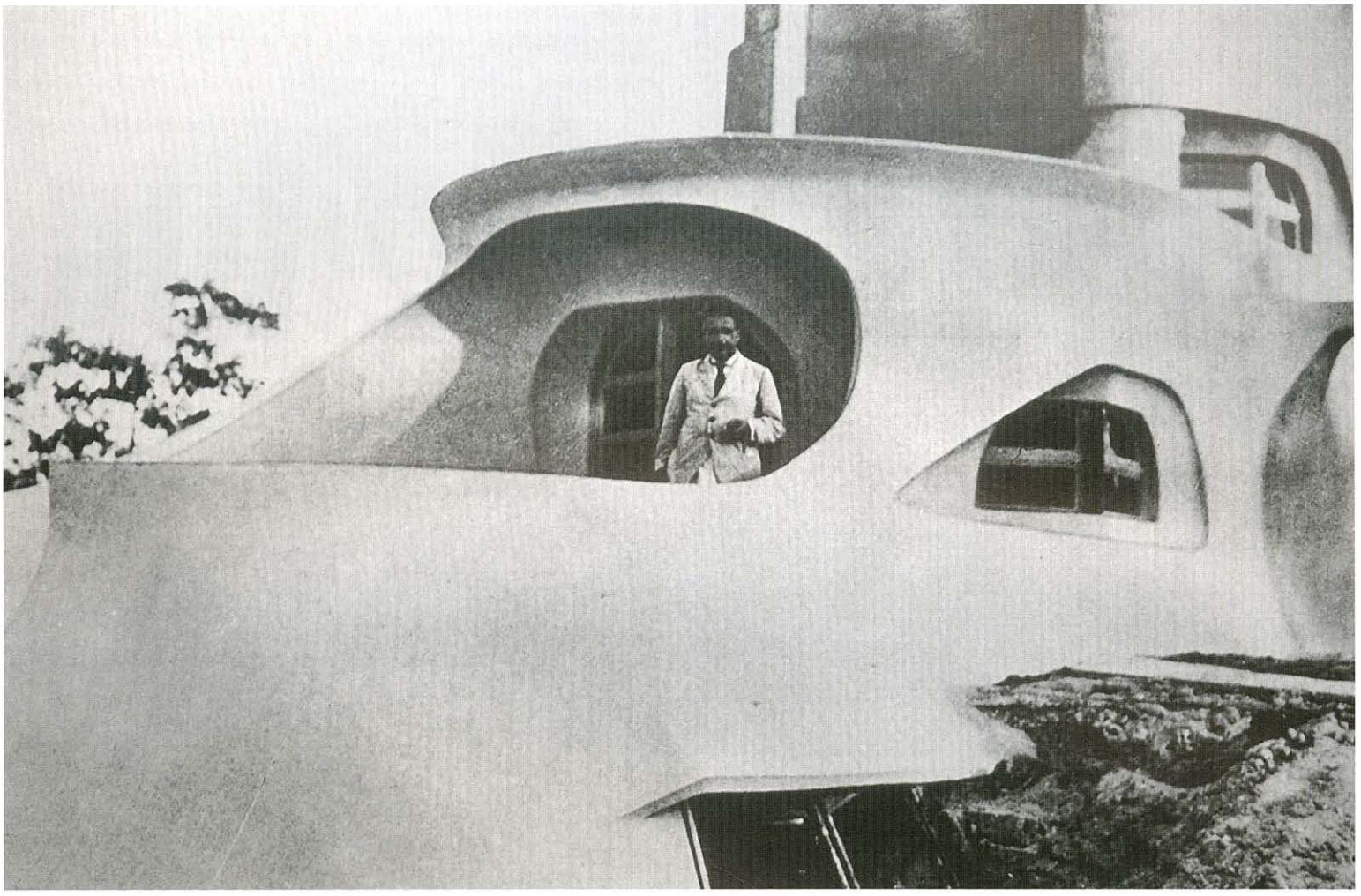
The other expression, dialectically opposed to the first, would be the determination of form through its constructive "system": in principle reinforced concrete, the new system that for Mendelsohn contained in its interior all the tensions that act on two materials, steel and concrete interacting jointly. This system would have to regulate the exterior form as long as the material of dynamic and elastic performance continued.

The idea of a form that in the construction of its lines expresses a "dynamic" behaviour of the material of which it is made and which structures it, was fairly frequent in the years in which Mendelsohn applied it. In fact, it was a typical idea of modern architecture. One of the best known and often quoted cases was that of Sant'Elia that in the "declaration of futuristic architecture", advocates the use of curves and diagonals. But in Mendelsohn's case, much more significantly (and earlier) was the experience of artists of the Skupina Vytvarnych Umelcu group, now known as the Czech cubists who, starting from Hildebrand's base theory and the figurative discoveries of the new artistic progressives, initiated a renewal of architectural language. Mendelsohn was one of the few who showed interest in and knowledge of the first experience of architecture linked to the artistic progressives. He referred to them in the 1919 conference as the "analysts of the elements of space", his greatest objection being that they had not emerged from the field of pictorial figuration, having an " ignorance of the completely different formal conditions that predominate in each of the plastic arts". For Mendelsohn the symbolic conception of material form, as shown by the Czechs, had to be confronted ("synthesised") with material and technical reality, with the reasoning of specific constructive processes.

In his theoretic formulation, Mendelsohn would denominate these poles as "dynamics" and "function". "I referred for the first time to Function and Dynamics as two opposites in the field of architecture. I owe this scientific notion to my frequent presence at discussions between Einstein and his collaborators. . . . What in 1917 was an unconscious emanation of my artistic nature, now I realise only revealed the architectural method of counterpoint, similar to musical counterpoint where one or several melodies join together to achieve the accompaniment of a given melody."

Mendelsohn's hypothesis regarding construction in reinforced concrete as a system that would correspond to a "soft" and "continuous" as well as "dynamic" form, was maintained until the Einstein Tower and abandoned after its completion. To be more precise, what was abandoned with resignation was the proposal to put the theory into practice.

The almost definitive form is shown in plans that were kept of the project dated September 30, 1920, although it is very like previous plans. Barbara Eggers has identified and classified up to seven stages in the elaboration of the project, seven generation of plans in her words. From the fourth stage, or generation, of July 1920, the general idea was practically established, especially concerning one of the decisions that possibly had more to do with that hypothesis of total continuous and fluid form: the abandonment of the articulated configuration of the body of the tower that had appeared in some of the first sketches from the French front and which characterised the version chosen by Mendelsohn himself for



publication, the one titled Vorprojekt and dated in 1919. This "vertebrate" version that appeared in several drawings, even in some that possibly came later, was eventually replaced by another final version, that of a tower of continuous vertical development.

The conflicts that accompanied a much worked and continuously revised and retouched project were much more immediate than conceptual. Mendelsohn's errors were largely errors of optimism. First of all, he found difficulties in getting the new observatory project under way; later his problem was obtaining official recognition as the architect of the work; next he had to overcome continuous obstacles over the acceptance and approval of his projects; and, finally and most importantly, he faced economic and supply difficulties that affected the construction of the building entirely in reinforced concrete. To all this must be added the weighty internal problems inherent in the design and the execution of the form. On the one hand, there was the problem of determining the geometry of this "free" form that was evident not only in the continuous modification of details but also in some of the detail plans that are known. Basically, it was a similar problem to many that have arisen in so many other works that have frequently been compared with the tower, such as Eero Saarinen's TWA Terminal, Jörn Utzon's Sidney Opera House, and even the more recent Guggenheim Building of Gehry.

The major difference centres on the availability of instruments at given times. On the other hand, and intermingling with that problem, was the actual construction work with its derived complications, especially the form work. Mendelsohn absorbed all this with resignation and altered his hypothesis somewhat in the later work.

After countless difficulties and the issue of a permit in the summer of 1920, the work was started that season. Around October of that year Mendelsohn had to face, or rather had to suffer, a traumatic decision that gave rise later to the greatest criticisms and disparagement.

He had to accept that part of the building would be constructed with cement covered brick, or imitation concrete as it is often described. A year later the main body of the building was completed and shown to the public. A summary of the experience is succinctly told by Louise Mendelsohn when she revealed part of her memories to Bruno Zevi: "The Einstein Tower was a nightmare".

That nightmare was clearly visible in Mendelsohn's next work, but it is not true that the tower was assumed to be an error or basic failure of his ideas, as an accident that should be forgotten or hidden, as so much later history claimed.

Naturally, Mendelsohn himself later gave his own evaluation of his experience with the Potsdam work. In 1948 at a student's conference at the University of Los Angeles's School of Architecture, Mendelsohn said: "As the man who created and supervised the plans and the building, I understand that the twisted shapes entail a special architectural treatment that should not be repeated. However, when I was asked years later if I would construct the tower exactly as I did then, I replied: 'Heaven forbid!' But I would be able to construct it again as well as I did before, I know that."

There is another reference, this time not first hand, from Julius Posener, on the occasion in 1925 when a group of students visited Mendelsohn. When he was asked what he considered to be his best building, Mendelsohn chose Luckenwalde and, noting the disappointment of the student who had expected him to say the Einstein Tower, he continued: "Dear fellow, never again! We had to call in ship builder to make its outer layer. However, and in spite of everything, it is good thing that this building exists."

Fortunately, the building does exist and is part of history. Today it is approachable, is still a "monument to relativity", and its controversial presence serves as a witness of the rich experiences that marked the committed quest for an architecture of the modern world. It is to be hoped that with the passage of time and the disappearance of many simplistic beliefs that such oversights as Mendelsohn's exclusion from the index of Gideon's Space, Time and Architecture (and with that title!) will be avoided, because he is not mentioned in the text, and only vaguely referred to in a sentence that reads: "others considered raising towers of reinforced concrete, pliable like jelly".■

Gropius and Mendelsohn, symbols of hope

José Laborda Yneva

Eighty years ago in April 1919, Walter Gropius was circulating the Bauhaus manifesto in Weimar. That same year, Erich Mendelsohn was exhibiting the drawings he had sketched in the years that he had participated in the Great War. These two events were almost certainly unrelated, but both are representative of the creative tensions that gripped Germany in the immediate post-war period. Already in the years before the conflict, Germany had witnessed the emergence of disconnected movements of architects and artists, anxious to show their disapproval of the plastic results of the Jugendstil. Its obvious decorative formulation and its implicit decadent attitude combined badly with moves towards the abstract understanding of form. Above all, the arts had to be capable of expressing themselves as vehicles of thought. There was no longer room for formulas sustained by geometric elation, by the latent perversion that the agreeable contemplation of undulating forms suggested. Plastic manifestation had to follow a path leading to an encounter with spontaneous expression, certain that the future of the arts lay in that direction.

This preference for spontaneity in fact prevented the so-called expressionism movement from establishing itself as a compact action group. Its unruly nature set it apart from the norm, from the effective discipline required by all militant groups. Those who shared the same intellectual uneasiness in an independent and impartial way could barely perform common activities. Their participation in the movement was characterised by absolute creative freedom, and they joined it sporadically with each member being tied to his or her own previous circumstances. Intention united the exponents of expressionism rather than the ties of a group. For this reason, when its results are examined, hardly one single expressionist example emerges; there were as many expressionisms as there were participants in this form of interpreting creativity.

In all of them the same intention of disconnecting the appearance of the form from the certainty of the function arose. Architects decided that their buildings had their own capacity to represent themselves, provided with an explicit exterior layout and capable of harbouring in their interior spaces that had never before been attempted. It was the almost extreme handling of the possibilities that the renewal of materials offered to the architecture of the time, explicit aggressiveness in the formal suggestions arising from the transfer of spontaneous ideas to constructed reality. It concerned ideas based above all on the exaltation of the organic, the unique, the plastic combination of objects needed to achieve the apparent link between volumes. This was the architecture of Mendelsohn, already set down in his drawings of 1919.

Despite their opposed plastic positions, it is symptomatic that Gropius and Mendelsohn should find their most notable themes of expression in the new typologies. They were manufacturing typologies still uncontaminated by habit, undefined options to achieve the advance of form through technique, suitable for the assimilation of new constructive procedures that displayed a conscious break with precedents, not only in the novelty of the function but in the expressive advance of form. It was the encounter of architecture with the basic significance of the machine, once the precedent productive processes based on craftsmanship had been assimilated and mechanic novelty had been assessed as a

hope for the progress that might be achieved in the 20th century.

After the war in which both Gropius and Mendelsohn had taken part, they also shared a feeling of identification with the intellectual avant-garde and progress. The virtual dispersion of expressionism as a channel of unification united them in their intention of forming a vanguard around the Novembergruppe, founded in Berlin in 1918 as a gathering of artists of radical tendency. "Radicals in the rejection of established forms of expression, radicals in the use of new techniques of expression," according to the text of one of the group's exhibitions organised in 1919.

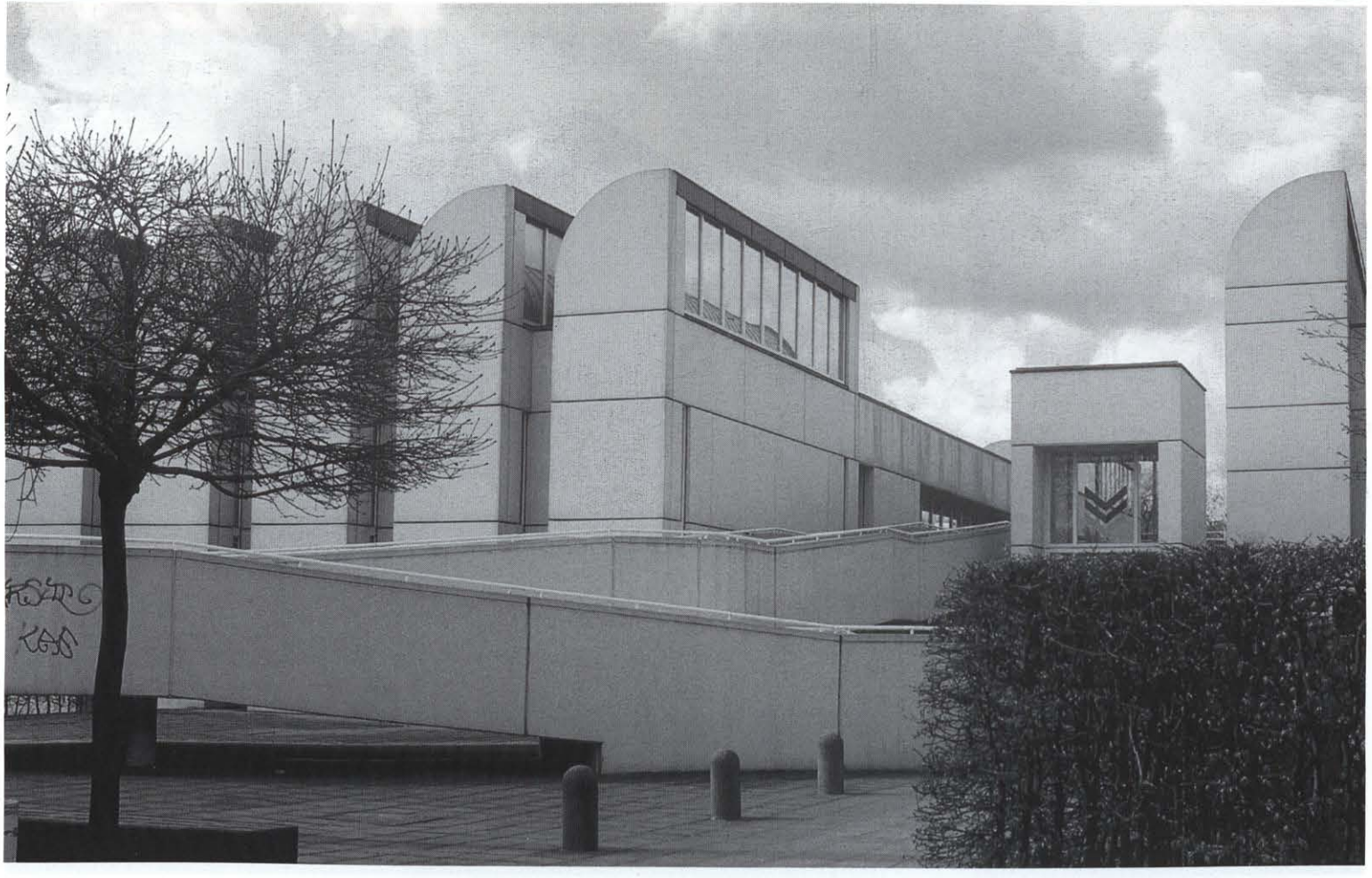
Germany had reached the apex prior to the final break with the past. Painters like Klee and Kandisnsky; architects like Bartning, Gropius, Luckhardt, Mendelsohn, Mies van der Rohe and Taut; and composers like Eisler formed part of the Novembergruppe, organised through an intellectual union of post war solidarity that expressionism never achieved. Architecture then became an efficient formula for the improvement of Germany's social drive that had been damaged by the war.

But perhaps Taut is the most singular example of the development of expressionism, an introvert and to a certain extent unsympathetic to the most reasonable realistic social attitudes. Taut was immersed in his initiation with lyrical expression and considered that architecture could not be linked with reality in his desire to precisely evaluate what exceeds the practical, removed from the relationship between form and its objective. After the war he had redirected his expressive capacity towards an attitude capable of blending his anti-functionalism with the need to arrange massive assertions, the Siedlungen, suitable for absorbing the demands required by the new social and technological order. Perhaps it was a re-encounter with a new Utopian idea, received with enthusiasm by those who were then looking for new intellectual arguments to continue along their way.

The Bauhaus was included, although in a different way. Its 1919 intention tended towards the recovery of the gathering of the arts and crafts in search of a common attainment of a systematic practice in benefit of the progress of design. "When the young man discovers love through plastic activity, when he starts his professional life, like in the past, the artist will no longer be condemned in the future to the incomplete exercise of art; his activity will be fulfilled now by craftsmanship", said one of the pamphlets of Gropius's founding manifesto. "Let us form then a new guild of craftsmen without the classicist arrogance that sought to raise a presumptuous wall between artists and craftsmen. Let us wish, invent, create in common the new structure of the future through a new unique structure". Magnificent, isn't it? But the reality was very different and exaggerated nationalism together with the inevitable internal tensions between those who formed the Bauhaus, took care of ruining this sensitive alternative for progress.

Certainly Gropius and Mendelsohn shared a short time together; but their origin was the same and their eagerness to find expression, each in his own way, in those difficult years in which practically everything remained to be done in the revival of European architecture. Their forms of expression differed. Mendelsohn, faithful to his plastic ideas, concerned himself with perfecting his ability to communicate his symbolic and energetic thought. He constructed remarkable buildings in Germany until his race was proscribed and, in more fortunate cases, expelled. He set up in London in 1933, then in Palestine and finally in the United States. Gropius, on the other hand, become more deeply involved in the belief of the standard, production in series, in the removal of adornment as a social form of finding progress, until he, like Mendelsohn, had to leave Germany. Both, arriving by different routes, were to find final shelter in America, paradoxically converted into an ultraconservative refuge for the progressive European avant-garde. There both continued their personal lives, Mendelsohn losing the creativity of his beginnings, and Gropius expanding his influence through his American buildings, together with his impressive activity in East Berlin.

Certainly few things were as they were in the difficult and promising times immediately after their 1919 meeting. Perhaps it was the natural rhythm of history, the change of pace that one day brought forth the hope of progress and managed to convert the immaterial idea projected by expressionism into the structured option that was enshrined in the Modern Movement.■



Discovering Eric Mendelsohn in San Francisco and Richard Neutra at the same time

Text and photographs: José Vela Castillo and Mariola del Santo Mora.

After the columns and marble beams of the Greek temple followed by the pillars and stone vaulting of the Gothic cathedral came the structural flexibility of the architecture or steel. After the balancing of weights in ancient times and their elimination in the Middle Ages came the powerful tension of steel and concrete building.

Erich Mendelsohn

Walking up Maple Street towards Washington Street in San Francisco's very peaceful Pacific Heights neighbourhood, under a clear blue Saturday sky you might spot the circular and slightly irregular shape of a large balcony that nonchalantly looks out over the assuredly blue views of the bay from the elevated incline of the street high up to the left. Flying literally over the thick vegetation, the feeling of surprise and yearning conveyed by the powerful construction seems to stir an urge to circle it, which we do without hesitating. Going around 3778,Washington Street to the left, guided by the heavy vegetation and then taking another turn, we go up some steps at the end of a white wall to enter a more or less square courtyard that suddenly reveals the Russell house. Built in 1950-51 by Erich (now Eric) Mendelsohn in his last American exile, this final effort curiously contains some of the most definitive images of the work of one of the greatest architects of the Modern Movement. His contemporaneousness seems to defy the relative oblivion into which his work has apparently fallen. Yet all the keys to his architecture are indelibly present here.

The house is arranged around the courtyard that is limited by the L of the dwelling and by a pergola that closes the other two sides. Divided into four levels, with a basement that contains a garage and which opens on to a rear garden terraced with the incline, the form in which it is related to the surroundings demonstrates all the care that makes his Berlin Am Rupperhorn house so attractive. The servants' quarter wing around the courtyard leads to the interior, shaped by a curved block. An elliptic stairway whose oval form leans over the rear façade (next to a lift and another stairway) connects the whole house; a very light steel structure with wooden steps that gives a sensation of transparency and movement from the access that is reminiscent of the resonant stairway of the Schocken Stores in Stuttgart. It is not, however, a self-appointed repertoire house constructed in wood in the bay region style.

If Mendelsohn's architecture had been a experiment through the manipulation of volume of lightness and transparency, like the curved corner of the Rudolf Petersdorff shop in Breslau that flies over the access level, or like the Chemnitz shops, this intention would seem to have reached its limit and most daring expression in this house on a slope. (The façade of the Chemnitz shop is supported 3.5 metres out from the line of supports to permit the maximum effect of flotation from an uninterrupted level of glass and illuminated pillars). So the main space of the house, consisting of two floors that contain a living room, dining room and bedrooms on the upper level, literally floats over the courtyard, only supported by three minimal metallic supports on three very thin planks that conceal a steel lattice in a particularly expressive display of structural knowledge (an examination of the section sends a shiver down the spine). From the courtyard and entrance the house is transparent and opens out majestically to the views of the bay. Beneath the constructed area, at another uneven part by the clearly defined balustrade curve of the gallery, a compact and horizontal space spreads out above which the murmur of balancing effects seem to be heard before they collide in a distinctly dynamic sensation. Standing in a corner the courtyard, over the service quarter wing in the direction of the entrance, it can be seen how a part of the cubic structure, again sustained by two minimal metallic tubes, produces an effect of maximum tension that a mass can be submitted without collapsing. This produces a maximum effort of flotation.

The aesthetic magnitude of the result is clearly evident in the image that contrasts with the sculpture standing still in the foreground. This is magnificent trick, involving a disregard for the sculpture of space that works on the opposites of lightness and heaviness.

Not far from here, his former draughtsman, partner and collaborator of the 1920s, fellow Jew Richard Neutra, had raised another splendid house on the crown of Telegraph Hill 10 years previously. Of equally grandiose dimensions and sharing a good number details, the building is called San Francisco's Lovell, the Kahn house (1940) at 66, Calhoun Terrace. Also standing on a pronounced slope with splendid views of scenery that Mendelsohn wrote reminded him of the Athens Acropolis or the Bay of Naples, it consists of four floors with a basement opening on to a garden where the butler lived. It also has a stairway that curves in part (curiously, this is not usual in Neutra), a lift, and spectacular terraces overlooking Bay Bridge. Similarly, the living quarters are not on the ground level but above it, in Neutra's case bedrooms being on the second floor and the grand living room with its bar one floor further up. Still, the very different atmosphere is just as masterful. Neutra's architecture concerns itself primarily with surfaces rather than spaces, and although the house is practically cubic in form, the intention of the Vienna master was to dissolve any sensation of mass into glass planes and white plaster, and acquire lightness, not by counterpositioning heaviness and air, but like a hang-glider through the absence of weight. Platforms ending in deep terraces that form the different floors, seem to want to ascend, and only the opposing effect of the metallic supports (also of a slimness approaching fragility) appear to prevent this movement, just like taught cables restraining a comet. Built at a precise time in his career from which point his exploration of transparency, light and reflection would bring him increasingly to deal with an architecture of surfaces, practically free of materials and generally with buildings of only one floor extending horizontally and not vertically, the Kahn house remains as a fine end of career monument to Neutra's work and as one of the city's most excellent architectural landmarks.

And although we can only speculate, it would seem natural that Mendelsohn in the years that he was building the Russell house and was teaching at nearby Berkeley, would pay a complimentary visit to the work of his former Berlin partner, if only in memory of the golden years of the 1920s. Even though Neutra and Mendelsohn apparently did not renew their acquaintance while both lived in California. This had probably something to do with destiny.■