



NICHOLAS GRIMSHAW & PARTNERS: LICHTWAND — LIGHT AND ARCHITECTURE

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Source: *AA Files*, No. 28 (Autumn 1994), pp. 74-80

Published by: Architectural Association School of Architecture

Stable URL: <http://www.jstor.org/stable/29543926>

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Nicholas Grimshaw & Partners: Lichtwand – Light and Architecture

AA EXHIBITION GALLERY 24 MAY – 21 JUNE 1994

ARCHITECTURE AS A STRUCTURAL GESTURE

The exhibition of Nicholas Grimshaw's design for the Berlin Stock Exchange and Communications Centre which was held at the AA in May 1994 was subsequently moved to the foyer of the Berlin Chamber of Trade and Industry. The installation, which showed work in progress, consisted of a large glass 'wall of light', and 3D-viewing devices — 'field glasses' that allowed you look into the future and try to gain an understanding of what the completed building will be like.

Considered at the level of visual presentation the installation was highly accomplished, taking advantage of the latest techniques in computer simulation. But its content was harder to fathom. Most striking was the slickness of the scheme, its carefully wrought details. An initial enthusiasm for the presentation and the innovative use of technology gave way to questions, and ultimately scepticism.

Any discussion of a building as significant as this must take into account the context for which it was conceived and the factors that will influence its construction over the next two years. The strengths and weaknesses of such an expressive architecture, which relies on striking effects, will only become evident when these have been investigated.

Over the past two to three years Berlin has been experiencing an enormous building boom. The debate on architecture and urbanism has grown at a similar rate, rapidly splitting along ideological lines. As a consequence, it is sometimes little more than a bad-tempered slanging-match between architects, critics and newspaper columnists. There are many reasons for this polarization, most notably Berlin's long geographical isolation from the West, and the course of German history from 1933 to 1945.

Throughout it all, Berlin's Senator for Building, Hans Stimmann, has been acting as a kind of aesthetic arbiter on behalf of the public authorities. It was Stimmann who introduced and popularized the controversial idea that all new buildings should adopt an eaves-height of twenty-two metres — the standard which shaped nineteenth-century Berlin. Regardless of intent, it would be impossible to make this a universal standard. Exceptions can be seen all over the city: an obvious one is Renzo Piano's scheme for a gigantic inner city arena at the (in)famous Potsdamer Platz, which includes towering new high-rises by Hans Kollhoff and by Piano himself.

In addition to the issue of height, there are also the arguments about what constitutes a truly urban architecture. There are two opposing strands of thought. One view is that urban architecture must adhere to a canon of rules derived from precedent, from the existing urban fabric (Berlin is essentially a nineteenth-century city with some twentieth-century interventions), and from the established tectonic vocabulary. An urban build-

ing should therefore conform to the street line and be mainly of stone, reticent in appearance, and sparing in its use of materials. In short, it should be based on the traditions of the nineteenth century (which in Berlin invariably means Schinkel) and the early twentieth century (Hoffmann, Behrens, Messel, Taut). Proponents of this view claim that there is no need to reinvent the city and subject it to continual experimentation, that enough damage has been caused over the last decades by war, reconstruction and traffic planning. They hold dear the idea of Berlin as a 'European city'.

The other view is that the new era calls for new forms and methods of design. Architecture should respond to the challenge of the present: it should address the issue of declining natural resources and take into account new methods of construction, new materials, and the new media which are transforming our lives. This would give rise to truly modern buildings unfettered by issues of style. Moreover, Berlin has always been a place of architectural experiment, as shown by the development of the *Siedlungen* in the 1920s and the building exhibitions in the 1950s and 1980s, and therefore the city should maintain this character of a 'laboratory' in order to ensure a plurality of ideas and built forms — and above all it should commission work from foreign architects, who are more advanced in this field.

This is merely a summary of the situation, and inevitably inadequate. However, while the arguments are frequently more subtle and refined, it is always possible to discern within them the elementary oppositions of stone versus glass, high-rise versus eaves-height, contextual building versus free-standing formal statement, traditional versus modern.

Berlin has become a free-for-all for architects, developers and the building industry as a whole. Many have been drawn to the city, keen to compete for work. The major obstacle they face is the Berlin 'mill': the probability that they will have to go through the gruelling process of having to present to all interested parties an aesthetic rationale for their proposal — and in the case of important public schemes this includes the Senate Department for Building. This process often turns into a battle, with the architect or developer having to fight to prevent every spark of originality from being extinguished as a result of the many conflicting demands, wishes, additions and interventions imposed by the planning authorities.

We have to assume that Nicholas Grimshaw has been through this Berlin mill. The winning design has been much altered, and the present scheme represents a fundamental departure from the logic of his design: one could also describe it as a total dilution of the original concept.

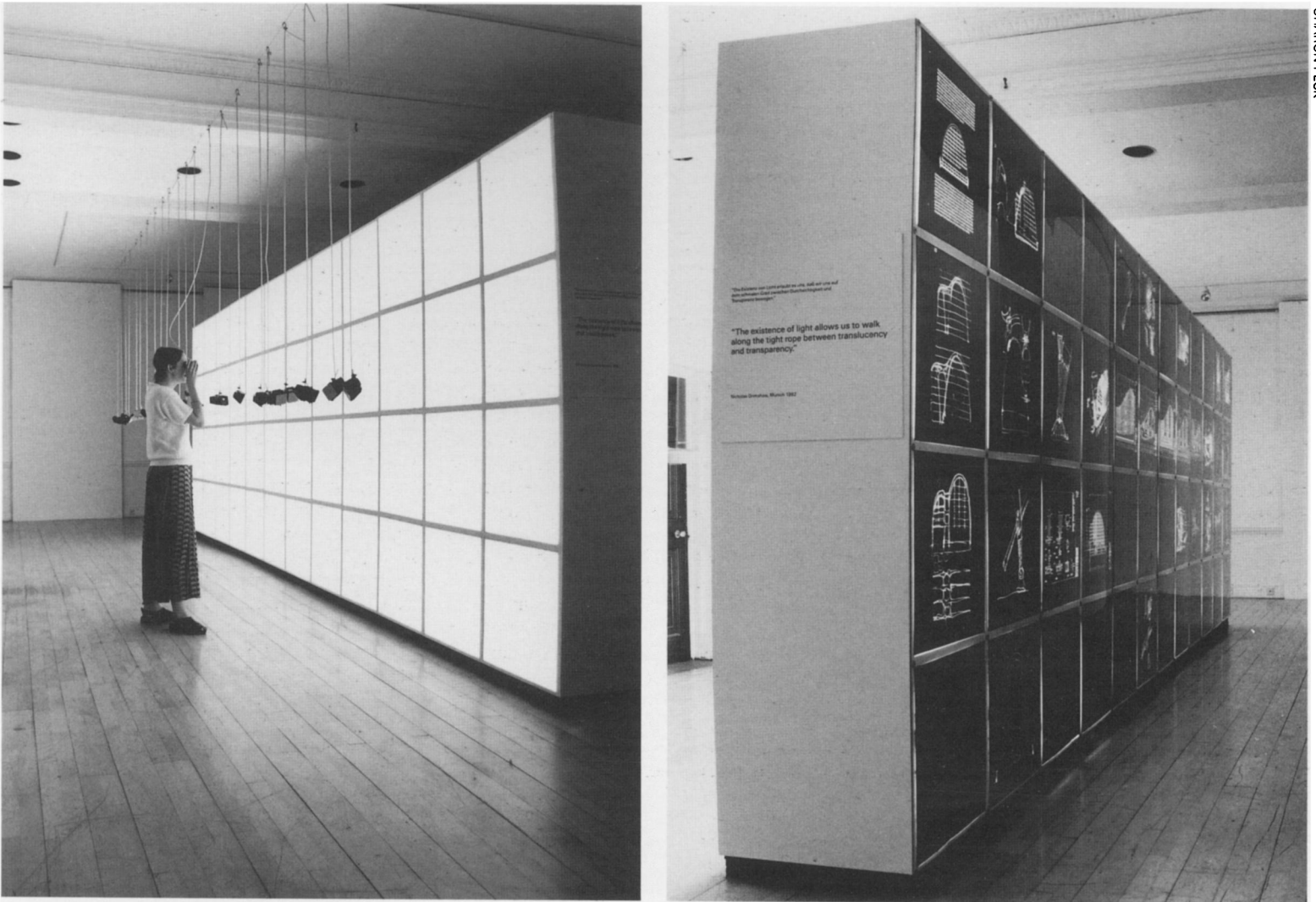
The first design of 1991 proposed an unusual form for the site — a gigantic steel arch structure with suspended spaces containing services, offices and large atriums, together with a subsidiary

street-front structure containing offices. The building's most distinctive feature was the huge, skeletal steel arch, which allowed for impressive spatial effects. Also notable was the layered street façade, with its transparent public zone on the ground floor, regular intermediate floors, and dissimilar attic storey, which is fully glazed.

In this design we clearly perceive the interplay of the three fundamental elements of Grimshaw's architecture — structure, space and skin — with its use of the arch as both an aesthetic and a structural element, its column-free internal spaces, and its largely transparent glass enclosure. However, the architectural results seemed inadequate in relation to the expenditure of effort. The virtuoso gesture of the basic arch structure was visible only from the rear courtyard of the building, and not from the street, while inside the building the large unobstructed space seemed also to have been achieved against the grain. Unlike the ice rink in Oxford, where Grimshaw first developed and applied this logic, the Berlin project did not call for a single, large, open space, but for a programme of differentiated spaces with explicitly defined functions. Still, the subsidiary structure fronting the street, with its projecting pylons, suspended façade and attached offices, allowed one to hope for a modern building that would transcend the purely striking spatial effects which often arise from technological innovation.

The building as we now see it under construction destroys this hope. Grimshaw allowed the planning authorities to destroy his design and, despite his protestations to contrary, I do not believe that he still relates in the same way to the project, in particular to this reworked scheme. The façade has become a bold variation on the commercial aesthetic that can now be found all over Berlin: a sheer vertical elevation with the prescribed eaves-height of twenty-two metres, horizontal bands of windows in the style of 1920s modernism, bright metal cladding, and a full-height shop frontage.

In place of the well-considered attic storey of the first design, a stolid edge now terminates the façade. Behind this edge, one part of the building rises up behind the eaves-line, but it is a purely formal gesture — the idea of a shell defining a space. The rhythm of the somewhat overstated sequence of arches no longer develops logically out of the building, and therefore lacks any real power. But the structure is most farcical of all on the front elevation, where a gigantic arch steps out of the building line, abandoning its *structural* function in favour of a *figurative* role. This arch is an effective solution to the problem of creating large, unobstructed internal spaces; it merely *simulates* them — an effect that could have been achieved by a variety of other structures. The once apparently essential structural frame has become simultaneously a skeleton, an architectonic structure and a skin. The structural form has taken on characteristics of gesture, of mimesis.



The installation in the AA Exhibition Gallery

To mark the opening of the exhibition, Grimshaw gave a lecture about the project. The audience learned little about how the new building will relate to the existing physical and spatial context, nor was its formal imagery discussed. Moreover, Grimshaw seemed very reluctant to explain the aesthetic principles underlying his concept — even though this issue is of particular interest to the Berlin public (for the reasons outlined above). Instead, his talk started with fulsome praise for the city of Berlin and for the idea of the ‘organic’. He then dealt very thoroughly with the construction details — their function as well as their form. But the problem with this approach is that you cannot make an urban building solely out of a collection of fine and functional high-tech details.

Grimshaw evidently places particular value on the detailed solution of technical problems. One often wonders why he sets himself such complex ones which entail a proportionate expenditure of effort and funds in their solution. A justification might be the idea that architecture ultimately

consists in the resolution of technical problems (construction, ventilation, lighting), and in providing aesthetic solutions of its own invention (creating spaces free of columns or any supports, and glass screens where there is no practical requirement for either continuous space or transparency). But the claim that building in an urban setting is no longer an issue of strategy or of representation implies that one solution can be applied to any context; moreover, this comes close to implying that existing urban space has no real identity, and can be refashioned arbitrarily.

At a press conference before the exhibition opening I had the opportunity to ask Nicholas Grimshaw — who has a most amiable and lively manner — whether the primary concept behind the design was architectural, or engineering-based. He replied that he always develops the two aspects in parallel with each other — a predictable response, but hardly a convincing or satisfactory one. For it is apparent in this design that the architectural idea stands in the way of the technical solutions — and vice versa. The old

functionalist dream of achieving a balance between the two remains unfulfilled: the architectural requirements of the site are not fully satisfied. The compromise is all too evident, for example, in the way that the steel arch at times merges with the form of the roof, dissolving the volume of the building. Although the design contains many good, appropriate and useful ideas, they do not relate harmoniously to one another, as if part of a single organism, but are joined together to form an additive whole. Unlike the original design, the building now under construction seems to lack clarity. However, one thing that was clearly evident in this exhibition was the mind-set of the city of Berlin, which chose to employ an architect of international reputation, in the hope of getting a new Stock Exchange and Communications Centre of equivalent stature.

Martin Kieren

Translation by Pamela Johnston

LUDWIG ERHARD HAUS (STOCK EXCHANGE AND COMMUNICATIONS CENTRE), BERLIN, 1992–

Nicholas Grimshaw & Partners were appointed to design this project by the Berlin Chamber of Commerce after winning a limited competition in 1992. The brief called for the fusing of the Chamber's functions with those of the Berlin Stock Exchange and the local Federation of Industrialists, into a single 'Communications Centre' that would include lettable office suites, a conference centre and catering facilities.

The competition design was based on three precepts: firstly, that the considerable amount of accommodation required by the brief should not result in a tall building (as suggested by several of the other competitors) but should be spread right up to the irregular rear boundary of the site; secondly, that there should be a rapport between the building's internal life and that of the city; and, thirdly, that its public functions should be arrayed along a gently curving internal 'street'.

After being subjected to pressures that were not explicit in the competition brief, the project has undergone a period of metamorphosis. On the one hand, the city planners insisted that the scheme conform to their strong ideas about closed urban blocks, the result being that the gentle curve of the street façade was squared up to the pavement line. On the other hand, the client insisted that the project be completely self-financing, the result being an increase in some of the spaces that would earn higher revenues, such as the lettable offices.

However, what has emerged from all this in no way compromises the aims of the earlier scheme. In fact, the rapport between the city and the facilities along the internal street has been strengthened by the simplification of the structure, with all upper floors now suspended from fifteen elliptical arches of depths that vary according to the outline of the rear boundary. As well as making the ground floor lighter and more open, the absence of columns creates complete design freedom on these levels, both now and in the future. Office accommodation on the upper levels is organized around a pair of three-sided unheated atriums that moderate the harsh climate and bring daylight into the heart of this deep plan. Although the atrium floors are one level up from the inner street, the three spaces are linked, giving spectacular views through the building's interior.

Work on the scheme started on site in June 1994 and is scheduled for completion in 1997.

Structural Engineers: Whitby and Bird

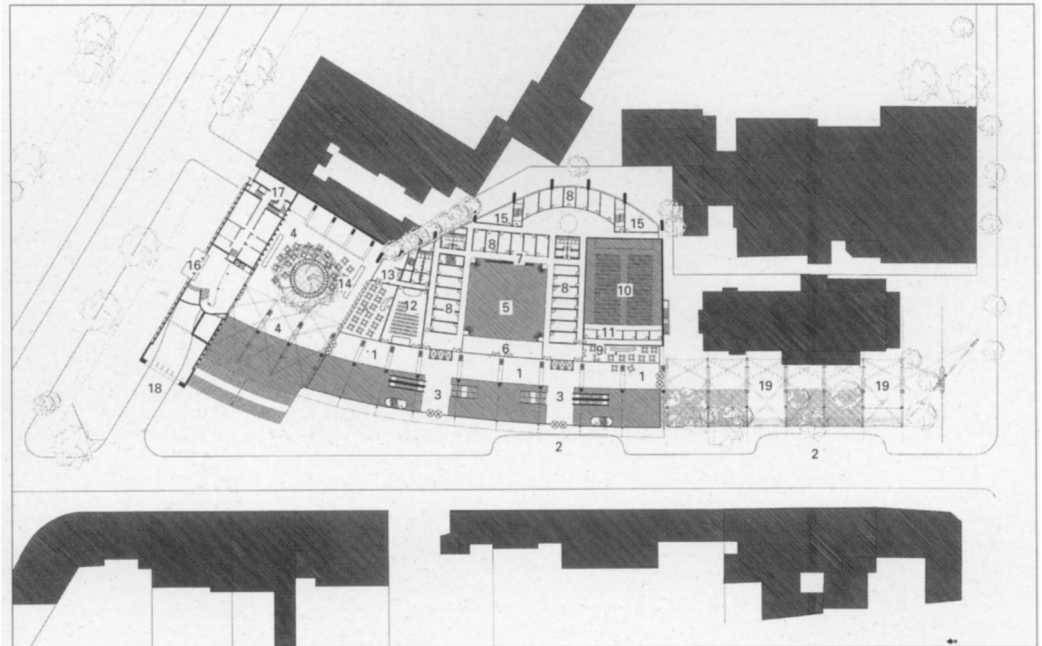
Services Engineers: RPK

Quantity Surveyors: Davis Langdon and Everest

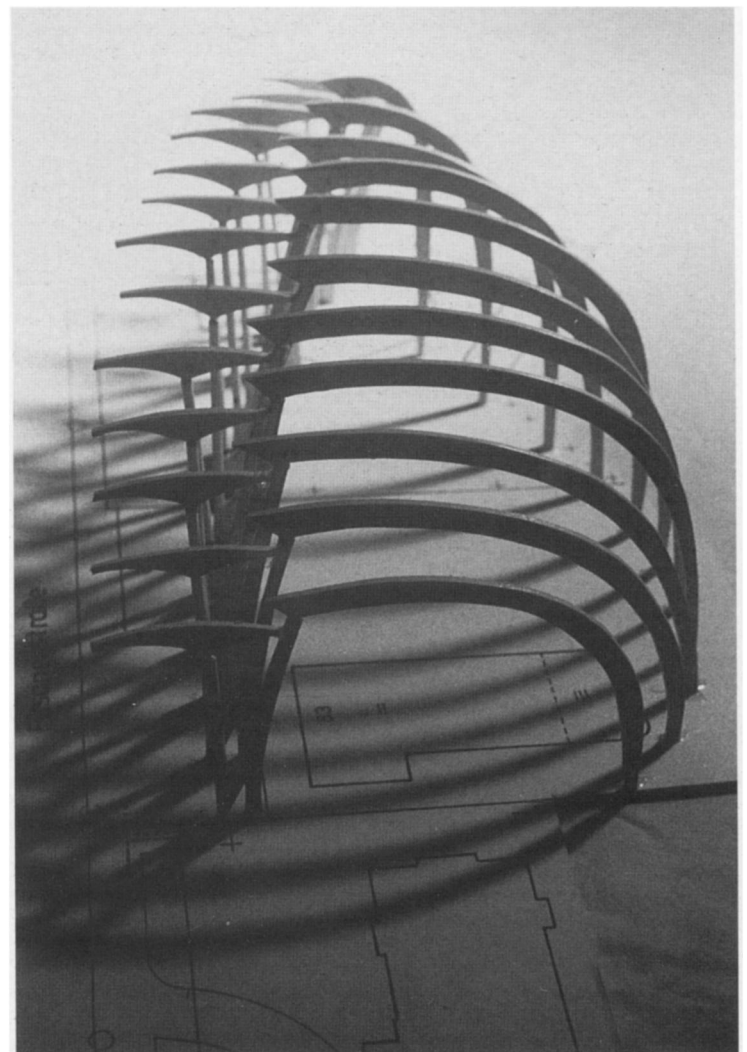
Quantity Surveyors (Services): Mott Green and Wall

Project Managers: Buro 4/SMV

Bauleiter: Michael Weiss and Partners



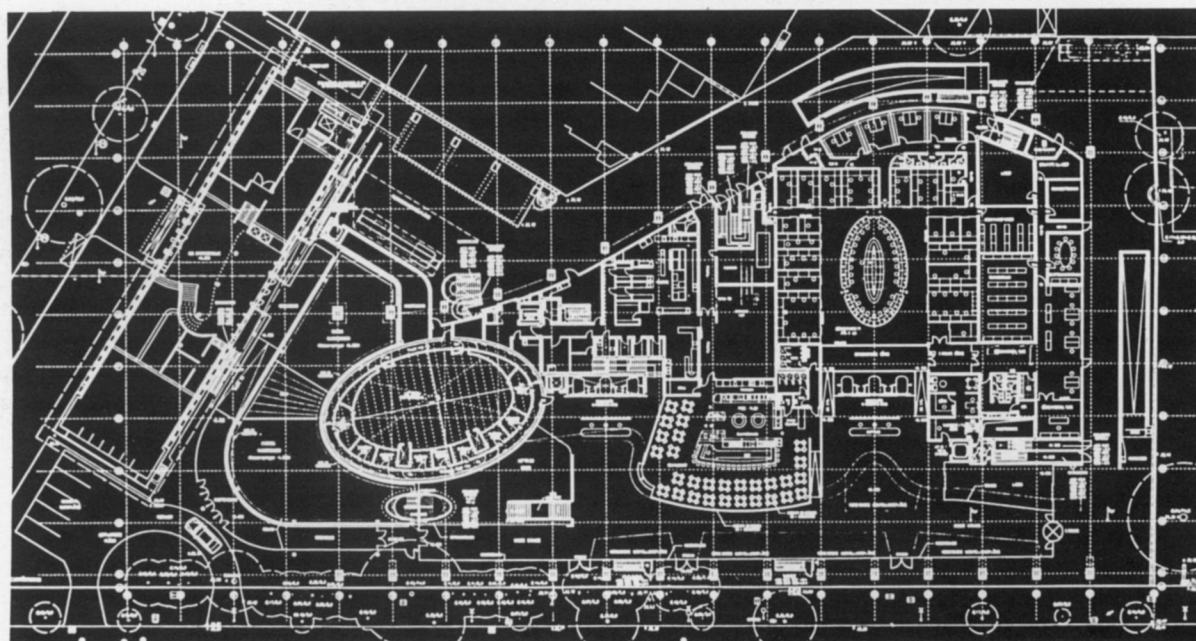
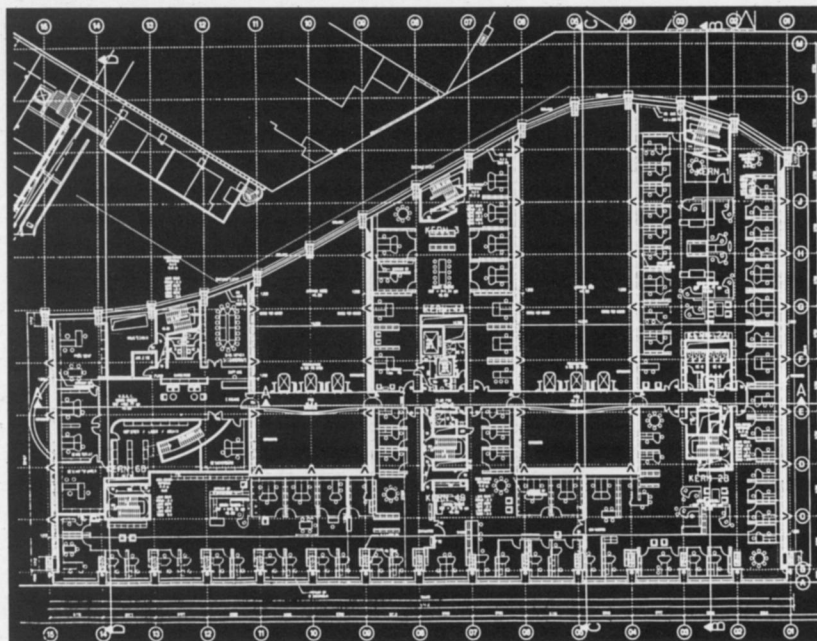
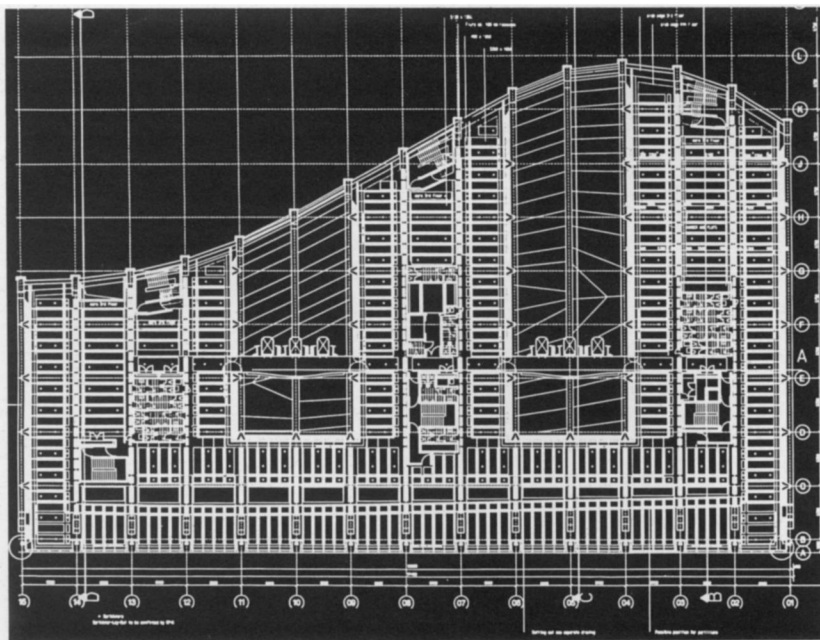
1. gallery
2. entry
3. entry bridge
4. piazza
5. trading hall
6. visitors' gallery
7. securities display boards
8. Stock Exchange offices
9. business club
10. congress hall
11. interpreters' booths / sound control
12. lecture hall
13. satellite kitchen
14. restaurant
15. plant room
16. entry to existing Chamber of Trade and Industry
17. goods entry / lift
18. entrance to underground parking
19. Delphi Palace foyer

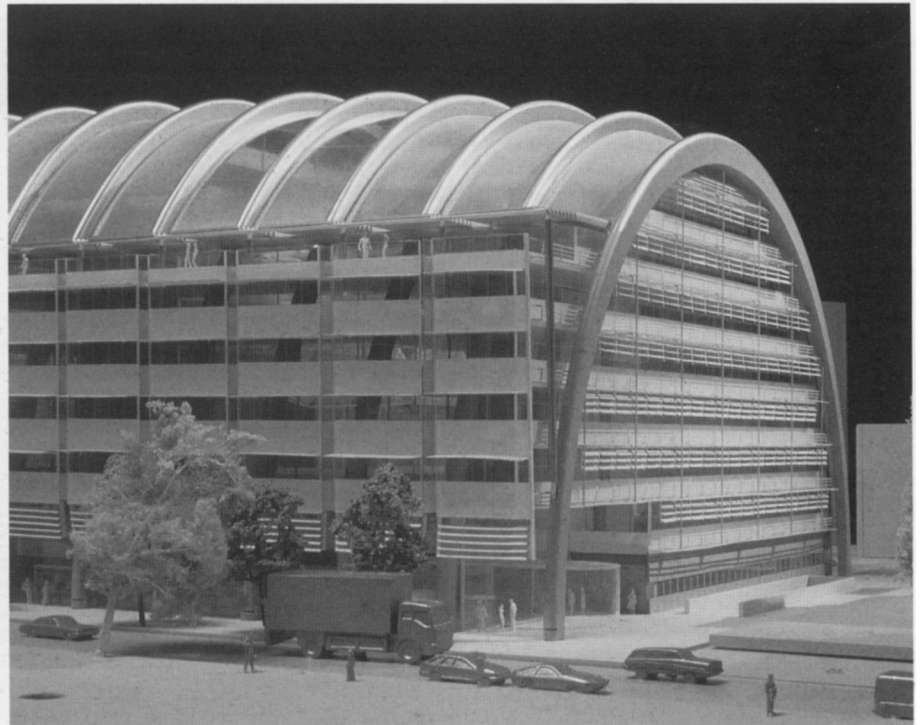
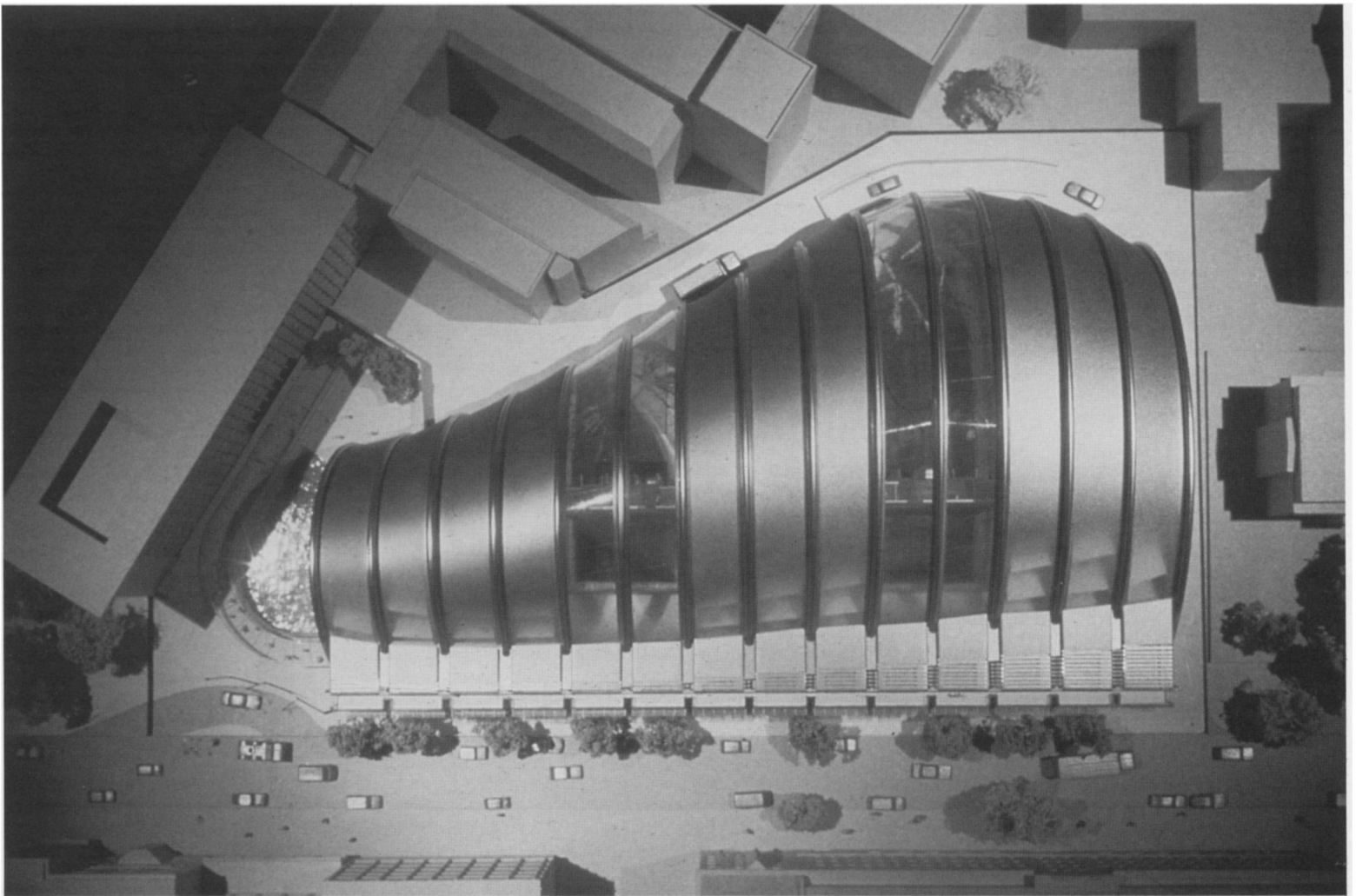


The competition scheme. TOP: Ground-floor plan. ABOVE: Model of structural concept. OPPOSITE PAGE: Night view of model.

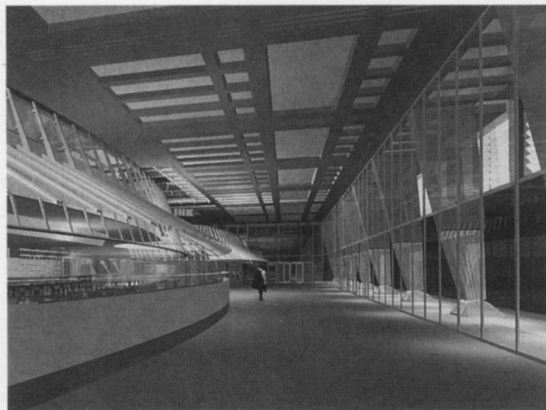
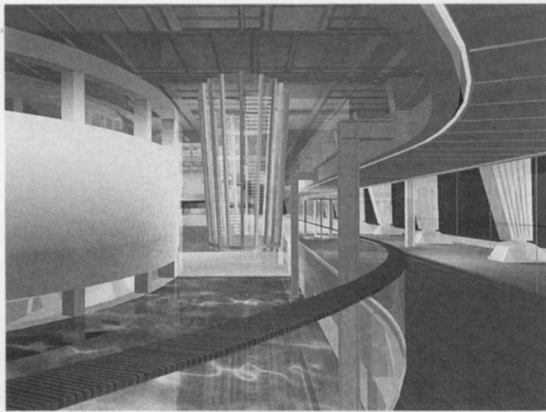
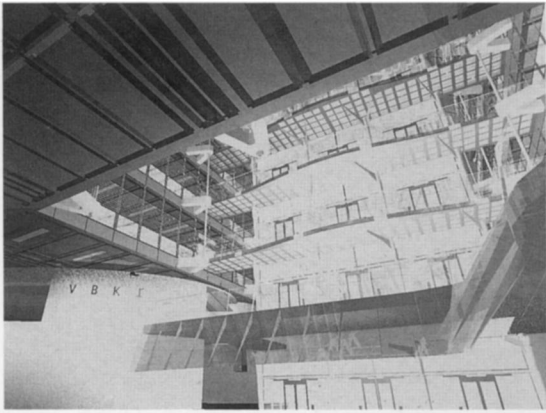


*Stock Exchange and Communications Centre,
Berlin: Revised scheme. Typical reflected ceiling
plan, typical office plan, and ground-floor plan.*

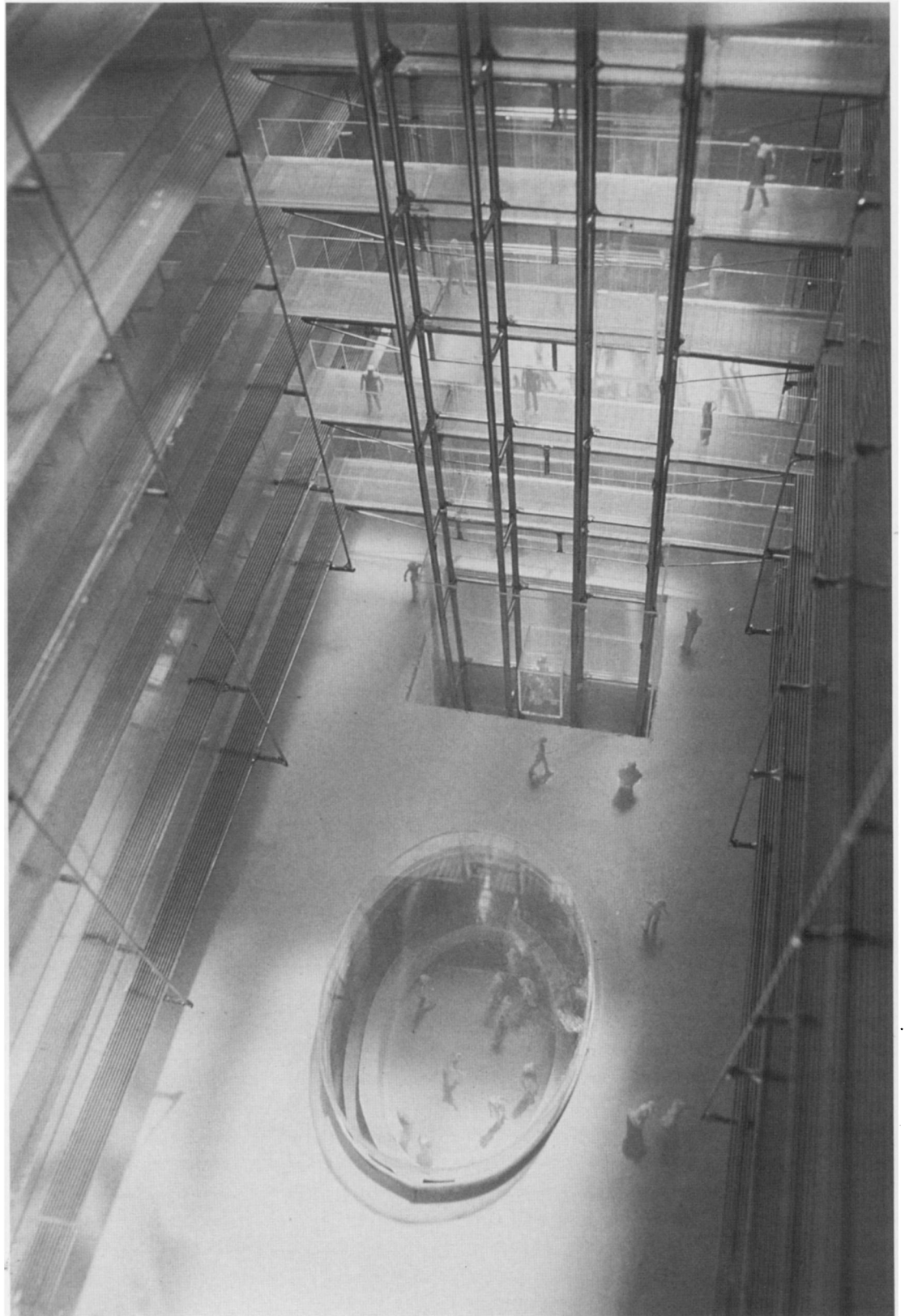




Model of revised scheme.



*Stock Exchange and Communications Centre, Berlin:
Computer renderings of (top to bottom) view looking
up small atrium, link building over water feature,
and internal 'street'.*



Model view of atrium.