Summaries

Gottfried Böhm, Gerhard Wagner avec Ulrich Kuhn, Cologne

Office Régional pour le Traitement des Informations et la Statistique à Düsseldorf

Le nouveau bâtiment du LDS a été conçu de manière telle que son aspect extérieur exprime ce qui se déroule à l'intérieur et ce faisant, il se subordonne au cadre urbanistique qui l'entoure.

Pour le LDS, le traitement des informations est la fonction essentielle. C'est pourquoi la salle des ordinateurs a été implantée au centre du volume. Autour de celle-ci se groupent les zones fonctionnelles propres aux programmateurs et spécialistes. L'administration et la direction de l'ensemble sont installées dans un volume vertical attenant.

Au plan formel, on obtient donc un socle étalé que surmonte un immeuble-tour. Au plan urbanistique, ce socle horizontal forme transition entre la tour et les volumes de quatre à cinq niveaux voisins.

Atelier d'architecture COOPLAN, Biel

Berufszentrum, Moutier

Das Gebäude enthält zwei voneinander getrennte Abteilungen, Werkstätten und Klassenräume, die miteinander durch eine Servicezone verbunden sind.

Die vorgeschlagenen volumetrischen und Flächenanordnungen erlauben jederzeit dank mobilen Trennwänden Veränderungen der inneren Organisation. Dieselben können sogar grundlegend sein, denn die Konstruktion erlaubt es, in den Werkstattzonen Klassenräume einzugliedern, und umgekehrt.

Das Projekt beruht auf einem Modul von 55 cm mit einer Spannweite von 1320 cm. Modul und gewählte Spannweite bestimmen eine grosse Zahl von Sekundärrastern (110/165/220/330/440/660), die für die Koordination der verschiedenen Elemente der Bebauung nützlich sind. Die Tragbleche der Decken weisen eine Spannweite von 3,30 m auf.

Franz Füeg

On the means and limitations of architecture

Flexibility as a problem of freedom

Has man ever altered his buildings since he began to construct? In Çatal Hüyük, one of the very first settlements possessing an urban character, the mudbrick houses were pulled down after one hundred or one hundred and twenty years and rebuilt in the same style on the debris of the old houses. Round huts, trulli and even the early Greek megaron house, with only one room, were too small for meaningful alteration; they were not modified on the inside, but were enlarged, if at all, by the addition of annexes. If constructions are to be altered on the inside using structural means, two prerequisites must be met: there are required the technical means making possible the construction of large volumes, and there is required a certain degree of economic prosperity. This has always been true and remains true to this day.

There has grown out of the awareness that the structural alteration of interiors is necessary and economically and technically possible a "philosophy" of flexibility, the slogan running as follows: Flexibility is modern, progressive, intelligent, logical and economic. This approach has had as a consequence that flexibility has been promoted even where it was not at first necessary; the need for it was simply created.

Unfortunately the theory of flexibility has remained a superficial one. Its objectivity and logic are often controlled by a purely emotional and one-sided belief in progress, and anyone who restricts himself to it alone runs the risk of merely playing about with building instead of creating architecture. Only the architect who does not assume flexibility to be the dominant element in architecture, but merely part of a wider assignment, can transcend purely mechanistic architectural designs.

The large-scale installation as an overlooked architectural problem

Wherever the large-scale installation is the architectural work itself, like oil refineries, for example, something entirely new has come into being. However, where the large-scale installation is packaged within a building, it has had strangely little influence on architecture. There are, to be sure, exceptions, such as the power centrals of large building complexes, the Sainsbury Centre for the Visual Arts of East Anglia University in Norwich or, above all, the Centre Pompidou.

Architects have adopted different attitudes toward the large-scale installation. Those who are suspicions or technology in architecture – and always, not just recently – take the technical installation as a necessary evil that has nothing to do with architecture. They make the big plan without taking the technical conditions sufficiently into consideration, and leave it to the specialists to pack the lower lines, ducts and apparatuses into the building as best they can. The consequences are difficulties during the planning and construction stages and higher costs.

Large-scale buildings and the limitations of architecture

There are constructions, and I have suspected this for a number of years, which, owing to their exceptionally large dimensions, cannot be well designed even by the best architects.

There is always a feeling of uneasiness with buildings that are very high and very long and also possess great depth, or which produce this effect; in such cases, the best architectural appearance in matters of detail is not capable of mitigating the uneasiness. The unpleasant confusion (there is also such a thing as pleasant confusion) is especially great if such a building, both in plan and in elevation, displays many spatial displacements and the eye is no longer capable of grasping with sufficient certainty the cubic shape of the building, not even if one walks around it. This gives rise to a kind of confusion that triggers an unpleasant feeling. Three processes are involved here: the eye attempts to read, the intellect attempts to grasp and to classify what has been seen, and if this does not happen, or inadequately so, there arises the feeling of antipathy.

The enormously large constructions which are planned and built all in one go lead to limits where even the best planners and architects can no longer create pleasing architecture.

Richard Rogers and Partners, London

Project for Lloyd's, London

Lloyd's has built new underwriting space in Lime Street twice during the last 50 years. On each occasion this space has proved to be inadequate to meet the market's requirements within 25 years of the initial decision to build.

Lloyd's have decided that their current need for increased underwriting space and for flexible space to satisfy longer term growth can only be achieved by redevelopment of their 1925 site on the West side of Lime Street.

An approach that could provide for the expansion of Lloyd's was summarised by the design team:

1. Satisfying the needs of the market into the 21st century whilst retaining a single underwriting room up to three times the size of the existing room.
2. Providing adequate usable space for ancillary activities and essential tenants.
3. Maintaining full continuity of trading with minimum disturbance.
4. Facilitating the flexible expansion and contraction of the underwriting space in line with future market trends whilst creating a commercially viable office development.
5. Creating a building of quality which not only contributes to the environment of the city but also maintains Lloyd's position as the centre of world insurance.
6. Optimising the use of available land allowing for a high degree of flexibility and choice of alternatives uses during design, construction and occupation of the building.

It is proposed that the future Lloyd's will maintain the varied closely knit quality of the existing streetscape. From a distance the skyline will be marked by a series of serrated articulated towers and the large glazed atrium vaulted roof which place the building in its City context. The building is designed as a series of 16 metres wide concentric rings overlooking a central atrium. Each ring may be used as either part of the underwriting room or as optimum office space. All normal fixed obstructions i.e. toilets, stairs, entrances, lifts and columns have been moved to the outside of the building in six vertical towers so that the rings offer 100% unobstructed usable space.

Theo Hotz, Zurich

Zurich-Herdern Telecommunications Center

This telecommunications center handles domestic and international long-distance telephone calls.

The actual telephone installations take up nearly 70% of the total area. The various automatic devices and apparatuses have to be accommodated in large contiguous zones which guarantee as flexible operations as possible. Flexibility is an absolute prerequisite owing to the nature of telephonic technology, which is constantly undergoing change.

The telecommunications machine can be adequately thought of as a big mechanical device in the shape of a building. The building technologies employed – modular construction, serial prefabrication, deep-drawing, electrostatic powder coating, laminated aluminium sandwich panelling, the salvaging of exhaust air and exhaust heat, heat recovery, fully automatic emergency power plant, etc. – represent the

most up-to-date stage of development, and at the same time demonstrate that architecture is also capable of appropriating the most complex and most highly evolved technologies and of mastering them without ending up by designing buildings that look like tins and railway cars.

If we proceed purely from the postulate of maximum flexibility in building, the plan would have to be conceived as loft space, as a support-free field with all kinds of subdivision potentialities and peripheral supporting structure. However, the large dimensions and thus the costs of this supporting structure militate against the economic limitations imposed and make the domino plan with a support grid of 8×8 m appear to be more advantageous. Service cores are installed at every narrow end and corner of the rectangular plan; two passageways run along the long side and are also utilizable as working areas.

The different vertical service installations: ventilation, electric power lines, stairs, lifts, etc., are sited on the periphery of the plan and visualized by means of architecturally autonomous elements: tubes, smokestacks, shafts, towers.

Outer skin

In contrast to a transparent glass skin, the aluminium-panel elevation represents the type of an impenetrable, almost scale-like protective membrane pulled over the inner skeleton structure like a skin. Thanks to the integrated deep-drawn structural analysis, it closely approximates the phenomenon of a self-reinforcing and self-supporting metal box. This impression is intensified still more by the various, minimally dimensioned «stencilled» window openings.

All metal panels, thanks to the deep-drawn knuckles and bent edges, are self-supporting and self-reinforcing, this rendering unnecessary an interior substructure.

Gottfried Böhm, Gerhard Wagner with Ulrich Kuhn, Cologne

Regional office for data processing and statistics in Düsseldorf

The new construction for this organization was conceived as a building whose external appearance expresses the activities going on inside it and at the same time harmonizes with the surrounding building substance.

Data processing is the basic function of this building. Therefore the electronic data processing plant has been accommodated in the centre of the construction. Grouped functionally around it are the areas for programmers and specialists. The administration is housed directly above.

What results is a building shape consisting of a broad foot surmounted by a high-rise. The spreading foot constitutes the architectural link between the high-rise and the adjacent four to five-storey blocks.

COOPLAN Architectural Workshop, Biel

Occupational training center, Moutier

The building comprises two distinct sectors, workshops and classrooms, articulated with each other by a service zone.

The volumetric and surface arrangements proposed, thanks to movable partitions, at all times permit changes in internal organization. These modifications can be fundamental, the construction permitting the mapping out of classrooms in the workshop areas, and vice versa.

The plan is based on a module of 55 cm with a primary structural span of 1320 cm. The module and span selected define a wide range of secondary grid dimensions (110/165/220/330/440/660) useful in the coordination of the different elements constituting the constructed complex. The secondary span attained by the floor plates is 3.30 m.