Zeitschrift: Bauen + Wohnen = Construction + habitation = Building + home : internationale Zeitschrift

Herausgeber: Bauen + Wohnen

Band: 22 (1968)

Heft: 9: Raumwahrnehmung und Raumgestaltung = Perception visuelle spatiale et configuration volumétrique = Spatial perception and volumetric configuration

Rubrik: Summary

Summary

Gunter Nitschke, Kyoto, Philip Thiel, Kamakura

Anatomy of the Lived Environment

(Pages 313–320)

Notes to problems of isolating, describing, scaling and scoring of the various perceptual and cognitive parameters of motion-, time-, and association-structured environmental experience and environmental design.

Part A "Structure of the Lived (concrete) and the Mathematical (Abstract) Space" outlines in summary fashion our present concept of abstract and concrete space, works out their respective attributes, and defines the terminology relating to these two concepts for the whole thesis. A short survey of the historical development of these two different types of space concepts seems to show in both cases a return to a vision already existent 2000 years ago. This justifies, – since this thesis is mainly concerned with the concept of concrete space and its possible notation systems –, the selection of the material in this thesis, – being mainly from traditional Japan –, since in Japan the inbreak and development of abstract mathematical space-thinking is of much more recent origin than in Europe.

Gaudenz Domenig, Zürich

Way – Locality – Space

(Pages 321–326)

An Essay of an Analysis of Movement in Architectonic Space
Space divided architectonically is characterized notably by the fact that it demonstrates the sites or the areas of different kinds which are usable for different aims and in a variety of ways. If we inquire into the nature of movement in such space we can start with the fact that, in principle, each spatial area includes the specific quality of being able to equally receive states of movement or rest. Thus in an imaginary graduated scale there are three special cases: space destined principally only for movement; space serving only for rest, and finally areas simultaneously offering room for movement and rest. If we call the first "passageway areas" or "passageways", the second "site areas" or "sites" and the third "space for passage and sites", or properly called "free space", we provide for three fundamental ideas which offer remarkable architectonic possibilities as an alternative to the most familiar ideas of space and time. In this article, Gaudenz Domenig defines these ideas in detail.

Kevin Roche, John Dinkeloo

Ford Foundation Center in New York

(Pages 326–331)

After all the commentaries devoted to this building and the praise lavished upon it, here are a few facts and details which will show more clearly what a wealth of materials and planning went into this construction to give it its appearance of simplicity, severity and classicism. Since the erection of this center was not subject to any financial restrictions, it cannot really be classified as a work open to ordinary criticism.
The administration tract occupies 319,000 cubic meters, while the garden volume takes up 179,000 cubic meters. The foundations are of reinforced concrete on rock. The props, the roof construction and the cores are likewise of reinforced concrete. For the entire project there were employed 14,000 cubic meters of concrete, 1287 tons of reinforcing steel and 1837 tons of structural steel. The exterior walls are constructed of steel sections. All parts exposed to the weather are of Cor-Ten steel. The glazing consists of plate-glass elements. For the facing, granite was used (from South Dakota), in the form of 6 and 12 cm thick panels. Behind the facing there is an insulation layer 2.4 cm in thickness. The building is furnished with around 3300 meters of mobile metal partitions. The technical installations are divided into three groups: two cooling plants provided with electric motors, the hot-air heating plant, the ventilation plant with a circulation capacity of 20,300 cubic meters per minute.
The air-conditioning of the building is effected by a system at high pressure on two circuits, fed by a power centre located below grade level. The vertical transport system is constituted by four lifts serving the 14 floors.
The garden, which has an area of 765 square meters, is equipped with an automatic irrigation system and a fertilizer injection system which is also fully automatic.

John Portman, Atlanta

Regency Hiatt House in Atlanta, USA

(Pages 332–336)

This hotel constitutes a part of the "Peachtree Center", an urban renewal project comprising, up to the present time, four city blocks, an exhibition building, several office buildings, a bus station and a parking garage.
The architect, who is at the same time the contractor, expresses as follows what he means by the term "hotel" in a city: A hotel is a small city. It ought to be furnished with everything that is required in a small city.
In addition to 1192 beds in 800 rooms and suites, the hotel accomodates a ballroom with a capacity of 2500, shops (jewellers and florists), fashion shops, beauty saloons and hairdressers', air line offices and car rental bureaus along with around 3000 trees and flowers.
Nevertheless, it is not this program which is the decisive factor, but its organization around a semi-natural space, created artificially and offering all the features of open spaces.
The visitor first enters an area where there are shops, then he reaches the Plaza, the basic surface of the hall which runs up for 21 floors. This Plaza, on which there are trees, benches, tables, chairs and the accesses to stairways and lifts, represents for the hotel an image of city life. It is bounded by the reception desk, a restaurant and the service area. The visitor then has access via stairways to the lower levels, where there are situated exhibition rooms and conference halls as well as club rooms, a restaurant, a swimming-pool and the ballroom. An asymmetrical high-rise structure for the lifts furnished with five lifts and galleries gives access to 800 rooms distributed over 20 floors and to a restaurant situated above the hotel complex proper. The hall runs up for 21 floors and has a volume of 80,000 cubic meters, presenting a difficult air-conditioning problem. To resolve this problem, there was installed a floor directly above the entrance level. This floor level contains the equipment for the heating, cooling and humidity control, equipment which circulates 6000 cubic meters of fresh air per minute. Moreover, each private room has ventilation equipment moving 8 cubic meters of air per minute. Thermostats regulate the temperature in this building divided into four climatic zones.

Frank van Klingeren, Amsterdam

Cultural Center in Dronten

(Pages 337–340)

Dronten is the most important village of the Dutch polder of Oostelijk Flevoland (54,000 ha). It is situated 60 km from Amsterdam on the main highway from Kampen to Lelystad. The population of the polder rose in 1967 to 10,000, but in the near future it will exceed 25,000.
For this village, constructed for the Ijsselmeer polder following the plans of J. van Tol, it was necessary to plan a cultural center designed to serve the entire region. The complex was supposed to accomodate a large number of activities: theatre, conferences, fairs, meetings, public concerts, a market, sports events, exhibitions, a cabaret, variety shows, special schools, dancing facilities, a restaurant and a cinema.
The construction had to be economical, rapidly realizable and capable of being adapted to all the functions indicated above. Therefore an attempt was made to find a modern solution, which is not without its weak points but which offers also considerable extension potentialities. It was also necessary to proceed to a number of changes in the urban system, because the covered market, for example, requires the most central possible location within the town. That is why the existing structure of Dronten has been modified in such a way that a circular network of roadways surrounds a pedestrian zone in the middle of which is located the agora, a covered heated zone measuring 50×70 m.
The square on which the agora is constructed allows for an expansion of the latter. This square is constructed on different levels interconnected via ramps; it offers outdoor market space in fine weather, and it is flanked by a number of newsstands and planting arrangements. The concept of the agora constituted a reply to the numerous problems raised and to the problem of the unpredictable future development of the centre. The construction costs for the agora amount to an estimated 3,200,00 guilders.
This sociological experiment has been so important for us and so fascinating that we have taken the liberty of regarding the architectural problem proper as secondary. We have sought to discover the most simple feasible designs, except for the restaurant, where, by contrast, a certain luxury is evident.

Jürgen Joedicke

Preliminary remarks on an architectural experimental theory of space with a view to determining the position of the architect

(Pages 341–344)

The aim of this article is to attempt to determine the relation between architecture and space. Whenever we speak here of space, we are not concerned either with mathematical space, or the abstract space of physics, or economic, geographical or political space, but, rather, with the kind of space understood in the field of architecture.
One can grasp the concept of "architectural space" only in connection with a given object, that is to say, the given concrete reality. In our case, reality means the construction consisting of enclosed facilities or accommodating such facilities. Thus, a construction consists of or contains enclosed facilities so that there really exists an architectural space.
Whenever we speak of space or volume in architecture, we are thinking in the first instance of something closed in on top, below and on the sides. "Volume", then, is for most people a notion that is identical with an enclosed interior space, a room. Whenever we speak of volume as something contained within limits, there is involved a consequence of visual perception. We can thus speak of architectural volume as being a volume of visual perception. The volume is perceptible owing to its limits. If there were no limits, there would not be any perception of volume either. Now then, what we call "architectural space" does not exist when the limits are erected and can be perceived.
There are multiple ways of delimiting space. At the present time, we also mean by the term "space" something not bounded by partitions. The distance between a body and an observer or between a point and a person constitutes simultaneously a perceptible distance and a measurable distance. It is always necessary to distinguish between perceptible or subjective relations and measurable or objective relations. The first depends on perception. It vanishes whenever it is no longer perceptible and changes in accordance with the position of the observer. The latter is always existent and always constant, independently of the observer.
We have ascertained that between a person and a body there are produced perceptible and measurable relations. The space, in the given case, is the sum of relations obtaining between bodies or between points. If the distances between two bodies or between two points become too large or too small and if no relation is any longer perceptible, what is then substituted for perceptible space is a void. The void is thus defined by the absence of perceptible points. Since there are no longer any visible points, the void is no longer perceptible. One can only imagine the void in the extreme case of a volume in process of becoming increasingly less »dense«. If the distances are small, we speak of high density and if the distances are great, we have low density. Space taken as a continuous enclosed volume is characterized by a high peripheral density and a low non-peripheral density.
Whenever space is defined as being the relation among different points, we remain on the abstract plane, that is to say, this definition contains no reality. In practice, the appearance of the position (point) is determined by three factors: the wall elements, the surfaces (construction material, colour scheme, structural system), the lighting and exposure to light.

Kenzo Tange

Administration building of the publishing and radio society Shizuoka

(Pages 345–348)

Description: The construction constitutes the closing off of a series of buildings situated between two streets crossing at a sharp angle. Three sides of the site with two sides parallel (189 qm) are limited by these streets. The existing construction closes up the construction space thanks to the foundation wall of a building 31 m high. On the opposite side, the construction space is limited to the height of the upper second story, by an express route formed in a curve and by the train lines of the Tokaido train, actually the most rapid and most comfortable means of rail transport in the world. In all 162 qm of site has been constructed on this plot.

Program
The program of construction achieved on a floor surface of 1493 qm includes small and medium sized offices, a cafeteria, an entrance hall, and the communications, installation and local annex areas.

Distribution
Ten stories of the offices are projected in two directions up to 10 meters' distance apart from a shaft of 7,71 m in diameter, fixed in the earth in the middle of the site. The shaft, cut on the bias, is higher than the top story. In its upper part, it contains the elevator machinery, the installations and supports for advertisements. Not all the stories possible to be incorporated in the building have been constructed. On the side looking over the railway line, four lower stories are missing as well as the 8th and 9th. On the side of the former construction, the story above the gutter line of the existing building is missing.