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Summary

On this Issue

This Issue is deliberately restricted to the subject of primary, intermediate and special schools, and deals solely with prefabricated buildings. The aim is to "situate" present-day school construction in a larger context.
There has not been much that is new to report in our part of the world for a year, except for a few school complexes in Germany, but these are still in the construction stage.
The school construction system of Foster Associates, London, already presented by Jürgen Joedicke in Bauen + Wohnen 2/1970, remains so far without rivals. The flexibility possessed by this system seems never to be given a chance anywhere. The politicians who take the decisions wish and are obliged to present their constituents with finished projects and to dismiss the idea of making experiments. The result is catastrophic for school and hospital construction, which everywhere falls beneath the level of real needs.
In the majority of cases, people prefer to forget that the teachers are no longer adequate to their task and that programmed instruction is the coming thing. This notion, which alarms people, explains why the new buildings have not taken it into account. How many recent schools ought to be modified forthwith? Not one of them is designed for the system of programmed instruction.
From an entirely different point of view, the two remarkable examples presented here, one Danish, the other Canadian, try to stop considering the school as an isolated building, but seek to make it a truly public centre which can be walked through like a street. This method of building which runs counter to certain conservative conceptions of teaching that are still strongly held in England opens up the school to the majority of the population. The open school contributes to making concrete the slogan "Equal educational opportunities for all", and does so much more effectively than certain types of political propaganda.

Erwin Mühlestein

Programmed instruction
Aims of programmed instruction

(Pages 45–47)

Teaching is becoming an exact science. This development, which is complicated by the amplitude of present-day problems, is forcing us to call on electronic engineering for assistance. A new teaching tool is given to the pupil, and the teacher from now on need only see that it is employed in the correct manner.
Each pupil, alone in front of the apparatus, is not for all that merely left to himself. At the basis of all programming is the classical method of instruction, the Socratic dialectic. Relieved of routine drudgery, the teacher finds two tasks assigned to him:

1) To teach the pupils how to use their apparatus.

2) To prepare teaching programs.

A machine can only retransmit the program drawn up by people. This means that the latter must possess not only the required technical knowledge but also a knowledge of the given subject being taught. The quality of the equipment (sound quality, appearance, etc.) also has an influence, as has inter-field collaboration. According to Helmar Franck, even the drawing up of programs can in the future be entrusted to computers.
The teaching machines can be adapted to the various capabilities of the people to whom they are addressed. One single program can be taught via different cybernetic channels.

Cantonal School of Wattwil

(Pages 48–53)

The Cantonal School of Wattwil gives the Toggenburg region an intermediate level school with a capacity of 500 to 600 pupils. Since the majority will come in by train, the situation in the vicinity of the railway station is justified.
In addition to the classrooms, the building program comprises 3 lounges, a large library, dining-rooms, an auditorium and sports facilities.
From the large central hall, the heart of the school, there is access to all tracts, which is important owing to the teaching system, where all the pupils constantly change classrooms. There is a vital interplay between the high tracts in the centre and those of decreasing height toward the periphery, and the complex is well integrated with the surrounding district of the town.
The exterior materials employed are raw concrete, firwood stained dark-brown and enamelled metal for the parapets, very careful attention having been devoted to the detailing of their junctions with the window studs. On the inside, the rough rendering painted white harmonizes with the sandstone flagging, the linoleum floors and a great deal of natural pine boarding.
All through the project, we have wished to put up a building which testifies to the importance for our society of intermediate level education and in which the pupils could feel at home, which seems to have been the case since the opening in April 1970.

German School in Brussels

(Pages 54–57)

The ground available for the German School in Brussels was barely sufficient and steeply sloping. This compelled the architects to concentrate the various functions within a compact volume adapted to the southeast slope of the site and integrated in the surrounding district of the city.
To the west of the complex the sports facilities and the auditorium form a buffer between the classroom building and the highway planned on the southwest side of the area.
Adjacent to this group, the main building, which contains the administration, the upper and special classrooms, constitutes the core of the school and extends parallel to the access road. Immediately to one side are the primary school and kindergarten.
All the classrooms, which are 6.80 m in depth and 3.60 m in height, have only unilateral lighting and face south, east and west. The terraces resulting from the utilization of the slope accommodate play areas, lounging zones and green belts.
The application of the Brockhouse prefab system (modulus 1×1 m) permitted a marked reduction of the construction time. Begun at the end of 1968, the building was ready for use in stages from the autumn of 1969 to June 1970. There has been planned for the entrance a sculptural work by the Berlin artist Henner Kuckuck.

Business College at Ostendorf

(Pages 58–61)

The new Ostendorf school complex amalgamates the business and training colleges of the Lüdenscheid region.
Several zones which are utilizable separately were created to meet the needs of the complicated program, but their function can be changed while maintaining short lines of communication among them all.
The contours of the site permitted the grouping of special classrooms (natural sciences, domestic science) on a lower level above which the commercial classrooms with their display windows are organized like a shopping street.
The classroom building with library and administration constitutes the core of the group. A hall ranging over several floors serves as an exhibition centre and a place of assembly. To the east of the site, the sports facilities will be joined by a boarding school and a recreation centre. Construction was based on a modulus of 2.50 m (prefabrication was originally planned but then dropped); construction material is concrete (poured in situ). All the partitions can be dismantled. The complex is closely embedded in the neighbouring forest.

Risskov High School

(Pages 62–65)

The Risskov High School is one of the rare attempts that have been made not to isolate the school from its surroundings, but, rather, to make it the focal point of an urban complex. The type of thoroughfare-school realized here is made up of three parallel avenues interconnected by transverse cross-overs.
Towards the street, the common facilities (library, dining-rooms, assembly halls), towards the outside, the classrooms, which are thus shielded from the noise. The streets have been designed so as not to give the impression of tunnels; owing to triangular elements, they seem to open upwards and symbolize »the interior world of education«.
A longitudinal prefab concrete skeleton with red brick fill constitutes the basic structure. The streets lighted from above have vivid colour schemes, and the impression of opening out is enhanced by the abundant vegetation. It is possible to enlarge the complex without greatly jeopardizing operations. According to Nils-Ole Lund, its educational climate puts this school among the masterpieces of Danish architecture during recent years.

Pimlico Secondary School

(Pages 66–69)

The main building on 4 levels accommodating the classrooms is countersunk by more than one floor in relation to the adjacent streets. Since some of the latter are very close, the thick retaining walls help to protect the school to some extent from noise.
Several entrances give access to the first floor. Wide straight stairways connect this level with the lower and upper floors. At the top, the upper classes are served by spiral staircases. The huge recreation area, which is closed in, serves as an exhibition gallery for pupils' projects.
The meals for the day-pupils are prepared at basement level and transported by means of containers and special service lifts to the upper floors.
Thanks to its stepped floor area and its removable theatre curtain, the auditorium can be converted into a theatre.
The pupils of the top grade are concentrated around the upper part of the library. The lower part of the library is accessible to all. The same thing applies to the swimming-pool, which is also open in the evening to adults.
The complex is constructed of reinforced concrete poured in situ; the arrangement of the windows is such that light penetrates deeply into the rooms.

Korah Collegiate and Vocational School

(Pages 70–73)

The Korah school complex can be designated a thoroughfare-school owing to its composition out of parallel buildings aligned between two traffic arteries.
The courtyard situated between the two built-up wings constitutes the centre of activity and assembly for the whole complex. The common facilities (auditorium, cafeteria and library) are sited at a pivotal point.
The building tract accommodating the classrooms is on 3 levels, which fits in with the three parts of the program. On the first floor, the technical department, on the second, the commercial department, and on the third, the scientific subjects. The second floor is also the level of the main entrance, which gives access to all the important elements.
Internal communications are facilitated by transverse footbridges between the two wings. Owing to the presence of movable partitions, the variability possible in the internal partitioning is very ample, since there can be created classrooms for from 6 to 150 pupils.
The windows, along one side only, are placed at eye level and afford a view but at the same time guarantee privacy.
For extensions, which can be effected in linear fashion from the main entrance, there has been planned the installation of modern teaching equipment, especially television.

Convention Hall in Florence

(Pages 77–80)

The Convention Hall in Florence, commenced in 1964 and completed about one year ago, along with the Villa Vittoria, which was especially renovated for this purpose, meets the most varied conference requirements (variable seating capacity and furniture arrangements) – including fashion shows, a special feature of Florence. At the same time, the authorities responsible for the tourist services required the architects and promoters to respect the Villa Vittoria, erected by the Riccardi in the 17th century. It was also necessary to provide for the installation of special equipment, such as interpreters' cubicles, telephone-telex facilities, television takes, etc. The Villa Vittoria was renovated mainly with a view to receptions (cocktail parties, buffet luncheons, etc.).
To meet all these conditions and requirements, the architects had to depress the building beneath grade level and to crown it with an inclined roof structure, which constitutes an open-air conference area with a capacity of 350.