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Summary

Row Houses at Tapiola, Helsinki. Plan 1958, Construction 1959 (pages 122—128)

This complex consists of 5 homes in the vicinity of some tower apartments. These homes are distinguished only in the plan.

A few details respecting spatial disposition will be of general interest: the kitchen in two parts (the kitchen proper and preparation area); the living section, dining-room and bedrooms constitute one single division. The bedroom section can be closed off with the aid of movable partitions. The terrace is also included in this unit.

The rather remarkably planned stairways are discussed in our Supplementary Remarks. Construction of concrete, brick and wood.

Row-house Residential Project at Princeton, New Jersey (pages 129—132)

This project, erected by the Institute for Advanced Study, is reserved to young, generally married, students.

The situation is well out of town, which guarantees quiet, rest and possibility of concentrated study.

The small 1- and 2-storey houses are not exactly well arranged. At any rate, we have seen better things by Marcel Breuer! Nevertheless, the plans of these maisonnettes are highly interesting. The project contains 107 apartments of the following 6 types:

Type A:
Superintendent's flat (90 sq. meters).

Type B:
32 flats for single men (48 sq. m.) with living-bedroom and kitchenette.

Type C:
20 flats (70 sq. m.) with living-room, dining nook, kitchen, 1 bedroom, 1 study.

Type D:
20 flats (96 sq. m.) with living-room, dining nook, kitchen, 2 bedrooms, 1 study.

Type E:
24 flats (96 sq. m.) with living-room, dining nook, kitchen, 2 bedrooms, 1 study.

Type F:
10 flats (106 sq. m.) with living-room, dining nook, kitchen, 3 bedrooms, 1 study. The Type C and D houses have two floors. Each house contains four flats. Each flat is on one floor only.

The arrangement of the kitchens, the disposition of the bath and lavatories and other details all seem to have been inspired by European plans; in fact, such plans are rare in the U.S.A.

The kitchen and the dining nook form a unit. The kitchen is lighted only through the dining area, and, what is more, it cannot be closed off. We are led to the conclusion that American housewives make less noise in the kitchen than Europeans! In every case each flat has a dish-washing machine! The individual plans in this housing project, while not exactly "right" in every detail, are nonetheless interesting enough.

Maisonnette Flats in two Curved Blocks (pages 133—135)

This is a scheme at Brooklin, Massachusetts. The south-east orientation is deliberate. In Europe the south-west orientation would be preferred. The curved part guarantees an admirable view toward the park. Unfortunately, several flats have an east exposure only; and this is the case for one quarter of all the flats, namely 652 of them.

As each apartment is to have parking space for at least one car, the result is 1.8 hectares of parking area! It is for this reason that the architects have opted for the car silo. It saves a great deal of space and thus facilitates movement to and around the complex. Moreover, motor traffic is completely separated from pedestrian ways.

Flexible plan apartment house (pages 136—137)

The building in question was designed for comfortable apartments with 100 to 120 sq. meters of utilizable area. The house stands in a green zone and commands a pleasant view of the environs. The tenant can modify at will the spatial organization of his flat with the aid of movable partitions. Only the utility block (kitchen, bath, WC) and the two wall-cupboards are fixed. These cupboards effect a separation between the bedroom section and the living-room section; the utility block divides the living area into two parts: the entrance and the living-dining area. The movable partitions as well as several cupboard elements permit the most varied arrangements, as need arises. A balcony protected on two sides by glass partitions embellishes the living-room area.

The supporting elements as well as the stairwell are separated from the installation elements. This conception guarantees complete acoustic insulation (concrete walls between the flats and double partitions!).

The elevation is faced with concrete elements between the supporting pillars. Each floor of the building (4 stories in all) contains 4 flats, 2 stairwells and 2 lifts. The ground-floor portico designed for bicycles, prams, laundry facilities, etc., is mainly open on all sides. The 16 parking stalls are placed a little lower, at the level of a street with little traffic. The apartment house in question will not be erected. A real estate concern is going to build on the same site an apartment house that will yield a 0.5% higher return!

Moreover, it is claimed that those who can afford the luxury of such flats will build their own homes. There are many finance companies that imagine that demand on the "comfortable" flat market is not intense enough; in all probability they have not yet understood that many people want at the same time the comfort of a private home and the practical advantages of a rented apartment.

Construction and Financial Return (pages 138—140)

It is generally maintained that "costly" construction inevitably entails diminished financial return. The observations to follow will attempt to show that sometimes it is precisely the contrary that is the case. Moreover, in the field of construction and financial return there are many more exceptions than there are rules! As an example of this, consider the different projects of the year 1957 for an office—apartment building at Grenchen: The programme comprises some shops on the ground-floor, several apartments on the upper floors, including the owner's flat, which is intended to possess the character of a private home.

Various supplementary conditions such as the original location of the stairwell, the orientation of the rooms and the "discrete and flexible" disposition of the different sections: bedroom, living-room, dining area and bathroom make the project still more difficult.

The construction site in question is very restricted. A preliminary study demonstrates that the 30 cm. walls alone of a standard building take up 10 sq. meters of utilizable area. Hence the necessity of eliminating all dead space by reducing as much as possible the supporting members.

First project

The walls of the installation shaft constitute at the same time a supporting core. The slabs are set in brackets which means that elevation pillars are superfluous. Only a "Skin" of light metal, glass and insulation slabs will cover the elevations.

The cost of this type of construction is very high. Metal frames, double insulating panes, the securing of the balustrades and thermal slabs cost Fr. 163.— per sq. meter (not including blinds and blind casing). The reinforced concrete work amounts to Fr. 62,000.— for the entire building, which, at first glance, appears to be definitely above the average. However, it has been ascertained that the rents envisaged in this case suffice to cover the traditional 6% return on the investment.

Second project

The second project can be taken for purposes of comparison, just to make sure that the first project yields a "lower return" than the average.

The walls of the core, the transoms and the elevation pillars in this case carry the slabs. This permits the classic brick fill of 12 cm. for the balustrades with a supplementary heat insulation of Polystyrol and pebble-dash plastering.

This elevation with wooden windows and without glass balustrades costs only Fr. 71.— per sq. meter. The reinforced concrete work, on the other hand, amounts to Fr. 70,000.—. It should also be added that the elevation pillars are not included in the Fr. 71.— per sq. meter, that the "picture window" in the living-room of the first project (which would obviate the necessity of a balcony) has gone and that the rooms are obviously smaller. The total cost is Fr. 20,000.— lower than for the first project; the supplementary cost of the balconies of the second project are nevertheless not included in this figure!

Third project

To make possible a complete comparison' a third project is taken up:

This time the construction method is perfectly traditional: solid elevation walls 30 cm. thick, pebble-dash plastering, windows and balustrades as in the second project. Cost of elevation: Fr. 84.— per sq. meter, which is utterly surprising since it is higher than for the second project! The reinforced concrete work amounts to Fr. 59,000.—. The total cost is Fr. 26,000.— lower than for the first project. The rooms obviously are becoming smaller and smaller, the utilizable area taken up by the walls larger and larger:

For the first project (glass—metal "skin") 1.2 sq. m.

For the second project (concrete and brick pillars) 6.3 sq.m.

For the third project (solid and plastered walls) 9.6 sq.m.

Conclusions

The utilizable area comprises 112 sq. meters per floor. A comparison of the total cost of the work, including basement, ground-floor and roof minus the utilizable area taken up by the elevations gives us the following results:

First project ("skin")
Fr. 390,000.—
443.2 sq. m. at Fr./sq. m. 879.—

Second project ("concrete pillars")
Fr. 370,000.—
422.8 sq. m. at Fr./sq. m. 875.—

Third project ("solid walls")
Fr. 364,000.—
409.6 sq. m. at Fr./sq. m. 888.—

The third project—the cheapest—is therefore far from being the most **profitable!!** Leaving balcony, stairwell and other elements out of consideration, the second project yields the highest return, at least on paper. Therefore it must be admitted in reality that the first project is in actual fact the most promising from the economic point of view.

We are convinced—and this is what we wanted to show here—that the most costly project is not always the one yielding the lowest return. Consequently, it is necessary to estimate the profitableness of the different construction elements not individually but within the total complex of the building. Moreover, it will be noted that there are various designs possible depending on the materials selected, which does not mean that the design of a building depends solely on the materials used. However, a wide range of choice is sufficient in architecture without anyone's wishing to "create architecture."

Apartment House located above a garage (pages 141—143)

This apartment house is situated in a district that is half-residential, half-industrial. It contains mainly 1½-room flats and 3-room flats. The slightly "laboured" plan is not always very satisfactory with regard to disposition, especially as regards the 3-room flats.

Block of Flats with 2-room apartments, Caracas (pages 144—145)

This apartment house is situated in the residential section of Caracas. The four floors contain 2 two-room apartments each. The owner's flat is on the roof terrace. Special feature of the plan: kitchen and bathroom are pushed into a corner. The kitchen is entered via the loggia, the bathroom via the bedroom.

Golden Lane Housing Colony in London (pages 146—148)

The 545 new flats in this scheme accommodate a total of 1400 residents; which represents a high density of 194 flats per hectare. The shadows cast are negligible despite the rather considerable concentration of buildings.

The total area of the site (former rubble field dating from the 2nd World War) is 2.8 hectares.

The new residential district is not crossed by vehicular traffic. However, cars are guaranteed access to the entrances of the houses. 340 flats of 1 and 2 rooms occupy mainly the tower houses (Block No. II); the 5- and 6-room flats are situated in the 5- and 6-storey buildings. The different blocks are grouped around 4 courtyards. Court A serves as the main entrance to the scheme. The community centre (with small auditorium and stage) is in Court B. Court C: playgrounds and green zone. Court D: playing field, club, etc. A 2-storey building separating Courts C and D houses a nursery, a swimming pool and a badminton court. The four courtyards are all interconnecting as the buildings rest on porticoes that are almost entirely open.

The 6-storey blocks IV—VIII contain 3- and 4-room maisonnette flats. The main stairwell (with lift) of these blocks is placed on the side elevation.

A gallery floor provides access to flats on every second floor. The "traffic" area of the flats is relatively small in proportion to the size of the rooms. The supporting walls are placed laterally to the elevations, which makes the windows easier to get at.

Block No. I with 15 floors is described in detail on the design sheet in this issue.

Office Building in Mannheim-Waldhof (pages 153—156)

This building has been planned for around 400 workers. The client, the architect and the organization expert opted for the hall-type office. The nature of the site likewise demands this two-storey solution. The second floor forms a gallery above the hall floor, thus preserving the spatial unity of the whole. Two stairways connect the two levels of the office hall. Only the utility sections (WC, emergency stairs, etc.) are surrounded by walls. Movable partitions of shoulder height are provided in order to create certain subdivisions in the hall area. The lower floor (basement of the building) illuminated by a circular row of windows accommodates the subsidiary rooms: records, registers. In the centre: auditorium and technical installations.

The basement floor is of reinforced concrete. The two upper floors of the office hall are of steel and glass.

The acoustic insulation of the building has been very carefully worked out on the basis of special studies. The construction of the balustrades being very narrow, the relationship between the utility area and the total area is very favourable. The distribution of daylight in the building guarantees excellent illumination over the entire working area. The building is entirely air-conditioned and very comfortable. The office section can be considered a great success; moreover, this conception is more economical (despite the costly construction) than the traditional "cell" construction.