FfG *MADE*-Project

One- to two-storey row house / town house

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Preliminary Remarks

The tendency to use pre-fabrication in construction began approximately in the 1950s, including in the field of residential construction. The architect Ralph Johannes could not, and did not want to pass up this trend. He worked in a London-based architect's office that focused primarily on the research and development of large constructional elements and completely pre-fabricated building systems, and later studied *Industrialized Building* at the PRATT Institute in New York. Furthermore, as a research associate at the Hochschule für Gestaltung (for Design) in Ulm, he worked in a research and development team for industrial construction.

As a lecturer for the Department of Architecture at the Folkwangschule für Gestaltung (for Design) in Essen-Werden, he initiated, among other things, this *MADE*-Project, to be able to pass on his wealth of knowledge and experience, acquired through the course of previous years, to the students conducting their studies there.

Before beginning this *MADE*-project, there were a number of exercises relevant to the project that needed to be solved (Exercises).

Project Task

A one to two storey row house/town house[1] with variable accommodation units for a family of 4-5 is to be designed. The monthly income of the future occupiers is approximately DM 750,-to DM 1250,- (DM = Deutsche Mark, German Mark). The construction project is to be financed using public funds.

The accommodation unit should contain the following rooms:
a) Living room
b) Dining room
c) Master bedroom
d) Double children's bedroom
e) Single child's bedroom
f) Kitchen with the possibility to dine in on occasion
g) Utility room
h) Bathroom with indoor plumbing
i) Water-closet
j) Porch / cloakroom
k) Heating room

1

"The building type ‚row house'/town house' was not only selected because it allows, on the one hand, a concentrated building process, and on the other hand an economical house format, but also because ca. 95% of all modern-day standard row houses / town houses are, functionally speaking, bad (e.g. private sphere from the neighbours). We are faced with a critical situation where the current inadequate state must be improved." (See: Ralph Johannes: Variable Accommodation Units. In: Bauzeitschrift, Issue 2, 1972, p. 283)

l) Pantry and storage room
m) House service connection
n) Garden (or garden patio) with a play area that is protected against rain, wind and intrusion.

Obligations
The surface areas, storage areas, clearances and movement areas must all correspond to DIN 18022.

The surface area of the accommodation unit must not exceed 120 m². The regulations set by DIN 283 can be used as a basis for calculation.

The following construction systems are available: "HEBEL" aerated concrete system (Germany) (HEBEL construction system), "CLASP" light weight steel construction system (England)) (CLASP building system), "WOOD-FRAME CONSTRUCTION" system (Canada)[2].

Special Task
It must be proven that there is a possibility to convert part of the accommodation unit into an in-law unit, without the need for expensive building measures.
The in-law unit should contain the following for 1-2 people:
o) Living-, dining- and bedroom
p) Cooking area
q) Washroom (shower) and lavatory
r) separate entrance.

General Information
The number of stories remains open, however, 2 stories should not be exceeded. The accommodation units must not be formed with a basement.

It must also be proven that the accommodation unit can be reproduced by way of sequence, staggering and grouping, while saving ground space.

Utilisation
5.1 Situational plan with specification of streets, paths, unoccupied space and development ; Scale = 1:200 (the north-south direction runs from top to bottom on the drawing).
5.2 All building outlines, perspectives and necessary intersections; scale = 1:100.
5.3 A detailed drawing of the installation segment in the outline, and with an intersection; scale = 1:20.
5.4 A detailed drawing according to a particular assignment.
5.5 Model.
5.6 A calculation of the converted room from the top edge of the floor to the top edge of the floor of the next storey with the alignment of the prototype of the structural design according to DIN 277.
5.7 A calculation of the living area for the prototype in the alignment of the prototype in the structural design according to DIN 277.

Deadline
1st October 1965

[2] See: www.awe.org
Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings.

Note:
Unfortunately, this *MADE*-Project can only be presented in sections.

During the preliminary planing phase, 25 various garden court houses-, split level- and two-storey row houses were examined for possible usage deficiencies in Essen and the local area, with the help of the so-called BuildingAnalysisProcedure **(BAP).**

For example:

Garden court house
Row house/Town house

The examination criteria were taken from DIN- standards 18011 and 18022 of the construction standards in North-Rhein Westphalia, the basic principles of construction work.

New understanding as a result of detailed analysis formed the basis for the **designing of the One- to two-storey Row house/Town house** (Designs)