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Fundamental Considerations about Building Design in Rural Areas

An attractive design of buildings is neither a question of taste as is often said nor is it reserved for the works of distinguished architects. Furthermore, building design is not a matter of pronounced artistic feeling or additional financial expenses. The design of buildings is rather the consistent, precise implementation of functional requirements in a space determined by material, form, and colour.

Observers often see buildings in a very different manner. This is dependent on the observer's origin, age, experience, social environment, down-to-earth mentality, and several other factors. Despite these differences, however, a common evaluation criterion for everybody can be found when trying to answer the question „What is attractive building design?": namely the expectation connected with the location and utilization of a building. If this expectation is met, the design of the building is viewed positively. Otherwise, it leaves an irritating, strange, deterring, or disturbing impression.

Especially rural areas with their often scattered, low, and self-contained building structure are a sensitive environment where construction design sins generally become clearly apparent. Visitors who come to Northern Germany, for example, expect buildings whose design corresponds to *Figure 1* and which are visible from a far on flat terrain. The same building would cause surprise in Bavaria or China and would be considered inappropriate.

Today's possibilities of getting to know distant countries and cultures and becoming enthusiastic about the local building design give rise to the growing wish to copy what one has seen and to imitate it at home. However, these developments do not have their origin in our days. Merchants and seafarers have always brought home such construction plans as souvenirs from distant countries, which have established themselves and are certainly no longer considered strange today. Therefore, building design also has something to do with habituation and experience. Thus, it is not amazing that Ticinese farmhouse imitations are built in the middle of the Lüneburg Heath and that even companies which build prefabricated houses take over construction elements which are similar to Japanese building design.

Nevertheless, there are some basic rules which support or disturb the „healthy feeling of the average observer". For this reason, the state construction decrees contain design regulations which are relevant for approval. Even though the term „defiling"

Fig. 1: In Lower Saxony you access the building through a big door at the ground level into the hallway. Straw and other material for storage were transported up to the hall-way ceiling and simultaneously contributed there to heat insulation for men and animals living below.

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Fig. 2: The Black Forest farm building however, located at a slope, was accessed from the adjoining hill areas for storage goods. The regionally bigger snow masses, which covered the building in winter metres high, required an additional access from the lower side, which temporarily was only possible through a necessary balcony.

is a vague concept of law, a planned defiling measure may be prevented by the authorities. Therefore, not only the actual building, but also its effect on the street-, town-, and landscape picture are considered in the examination.

Elements of Building Design

The main elements of building design are
- Form and
- Dimensions of the constructional elements as well as
- Colouration and finally
- Craftmanship.

Especially after the Second World War, the architectural principle „The form must follow the function" was all too often implemented incompletely. The necessity of a new, independent architecture, which was used as a pretext, and restriction to the essential, along with the goal of saving expenses resulted in individual functional requirements being ignored so that the hoped-for effect was reversed in the longer run.

In the postwar years and the period of the economic miracle, city construction was characterized by the creation of cubic space cells with a minimum of available area and space, which was standardized as far as possible. Prefabricated buildings, which were able to be stacked vertically and horizontally, characterized modern, uniform construction. In addition, newly developed construction materials and construction elements, some of them from distant countries, had to be used wherever possible. They were intended to symbolize internationally oriented open-mindedness. New buildings featured flat roofs, aluminium doors, and glass blocks.

Sins of the Past...

The villages also wanted to keep pace with this development. Therefore, virtually every town which cared about its reputation wanted to have its „point block house" (an isolated high rise according to the city model). Even in towns were the construction of new buildings was impossible, the predominant old building substance of rural suburbs was modernized by means of such construction measures or largely ruined through urban development. Modern living was associated with a lot of light in the house, which led to the standing dimensions of existing window openings being replaced by shop-window-like huge holes, which were closed again using curtains and flower window batteries in order to obstruct the view from outside.

As a result of higher energy prices in the 70s, the change in the appearance of villages continued. Curtain walls consisting of bituminous cardboard with a clinker pattern, defiling shingles of all kinds, simply lacquered sheet metal profiles on roofs and walls generally enabled the traces of smart construction material salesmen to be followed. Only later did it turn out that, in addition to the questionable optical appearance, the functional expectations and the promised cost advantages could not be achieved. The cost calculation, originally on a square-metre basis, was often exceeded by more than 100% in the final account because edge joints consisting of profiles and formed parts at window reveals and house corners had not been considered in the calculation.

...Must Be Repaired at Great Expense

Both the long-lasting effects and the consequences of many measures have often been problematic up until today.
- After years of constant leaking, flat roofs are consistently supplemented with retrofitted gable- or shed roof constructions.
- Fortunately, inappropriate façade panelling, especially panelling without construction-physical ventilation, has already been removed in the majority of cases. Sometimes, however, it has already caused substantial damage, especially in supporting wood constructions (framework).
- Windows with disproportionate lying dimensions and larger measurements are difficult to open and have a tendency towards distortion and sinking, which results in damage to insulating glass and locks.

Conclusions

As a result, it must be noted that the recent past of construction has taught us that capital spending does not necessarily lead to improved design and that design is generally only a question of conscious reflection about the functional and long-term consequences. If form, dimensions, and craftmanship do not meet the functional requirements to be fulfilled by a building, subdued colours may at least make a contribution towards the mitigation and concealment of defects.