Snowball Effect

By DAVID L. PERKINS, A.I.A.

We usually hear of a "snowball effect" in connection with something of minor proportion that has, like a snowball rolling down a hill, gathered importance as it goes, and ends up being much larger than it was when it started out. Whole cities can be victims of this same effect, if the city's architects and planners don't consider everything they build and do in the context of the larger scheme of overall city planning. What began as one suburban home totally out of keeping with the neighborhood can have a larger effect on the city than a dozen projects in the same area.

Everywhere we look we can see the failure of designers to make subdivision restrictions and "something should be done" into more than an impossible assignment. Unless you know what kind of other elements of the city fall into the wall upon the room, you can't intelligently design the door. In like manner, the design of the door depends upon the wall, the wall upon the roof, the roof upon the building, and so on up to neighborhood, city, state and country.

This is not just a ridiculous example. It is true, and the concept of total planning as it must be applied to all parts of an architectural design, no matter how seemingly insignificant.

Precise Ratio

One problem every architect is familiar with is the one of stairs. Because the usability of a stair depends upon a fairly precise ratio between the sizes of the treads and the risers, any change in height will affect the needed height of the run. And the opposite is true: an impossible assignment of height in a house after the floor plan has been formalized and the old tread-to-riser formula will have you moving partitions all over the house to make things fit again.

A little more obscure example can be made in the relationship that exists between roof slope, wall plate height and overhang. You have a problem with three variables in it. Set any two of them and the third one is automatically determined for you. This is a matter of plane geometry.

Environment Important

I suppose this is the reason for subdivision restrictions and zoning ordinances. The fact remains, however, that not a single design of a door, window or anything else has ever been a successful one until the designer has taken into consideration the effect of the surrounding environment.

By way of illustration, consider the design of a door. Unless you know what kind of door it will be applied to, you can't intelligently design the knob. In like manner, the design of the door depends upon the wall, the wall upon the roof, the roof upon the building, and so on up to neighborhood, city, state and country.

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