

LOOKING AT BUILDINGS

Fitting Dormers to Buildings, and Other Problems of Scale

by Paul Hanke

Architects are often criticized for not knowing enough about how buildings are built. Builders, on the other hand, are often criticized for having little aesthetic sense.

In an effort to address the second problem, I would like to expand upon some comments I made last month about those ugly long shed dormers we too often see. The problem, I wrote, is that they are too big for the buildings they rest on, and therefore end up looking like phony second stories instead of dormers. To understand why that happens, we have to understand *scale*.

When we talk about whether buildings or their parts are large or small, we are talking about scale. ("Proportion" is related to scale, but refers to the relationship between parts, such as length-to-width ratio.)

There are many ways to look at scale, but relative size is the most common. A royal throne or an overstuffed chair is a large-scale device for sitting, while kindergarten chairs are small. Your state capitol building is probably of monumental scale, while a dollhouse is tiny. You get the idea.

Scale is one of the important factors that affect how a building looks. Dormers offer a convenient example for studying scale. For instance, look at the house in Figure 1. Here a "dormer" has been erected on a pleasant, if undistinguished, Cape to increase second-floor living space. Note the thin sliver of roof on the gable end, which is supposed to indicate that the upper story is really a dormer (it isn't). Note also that the ridge of the dormer is the same as the main roof ridge, and that the front wall is in the same plane as the lower wall with the door. Overall the visual effect is rather unpleasant. The dormer is too big; it is out of scale with the rest of the house.

Now look at Figure 2, which is similar but more attractive. Here, too, the dormer ridge and the main ridge coincide. And the dormer wall is once again a projection straight up from the front wall of the house below. In this case, however, there is a wider strip of roof on each side of the dormer. The strips are just wide enough to seem like a real piece of the roof—not phony strips that merely remind us of where the roof *should* be—and don't reduce living space very much. Note also that the main roof has been extended to cover the porch. This puts a wide expanse of roof below the dormer and cuts off the vertical wall between floors. The combined effect of the last two features is to dramatically scale down the dormer so that it looks like a dormer, not a second story.

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In Figure 3 there is no front porch (it has been enclosed), but there is a much wider swath of roof at the sides. The effect is the same: a smaller, more pleasant dormer that is in scale with its own purpose and with the building to which it is attached. Figure 4 shows a clerestory that is visually too small for its house and should have been a little bigger, as shown. The same analysis can be used for windows or any other design elements.

Making part of a design noticeably big or small isn't necessarily bad. The diamond-shaped window in Figure 5 calls attention to itself not just by its shape, but by its size and placement. It provides a strong focal point for the design. In fact, it almost makes the design by itself. Whether you like it or not, its usefulness as a design element is hard to dispute.

This last example shows how you can emphasize a design element—such as the above window or an entry—with some large-scale element to make it stand out. One school of design, called postmodernism, has even made a virtue of using greatly oversized arches, columns, and such, taken from earlier periods in architecture. (The results are sometimes dubious.)

Another architectural use of scale is found in the expression "human scale," which simply means scaled for human beings. The 20th century architect Le Corbusier developed a whole system of design based on human scale, and books that contain data on the size and movements of people are available.

But what do we mean by human scale? First, buildings and furniture should fit the people who use them. The right (and standard) height for a chair seat is about 18 inches from the floor, yet it is virtually impossible to recline comfortably in the standard five-foot bathtub.

Or consider doors. The massive ceremonial doors on European cathedrals are not only scaled to their massive



1. The ubiquitous shed dormer—an exercise in poor visual design, seen far too often. What is actually a second story is made to masquerade as a dormer by tiny slivers of roof at the edges.



2. A better example—the dormer is "scaled down" by wider strips of surrounding roof.



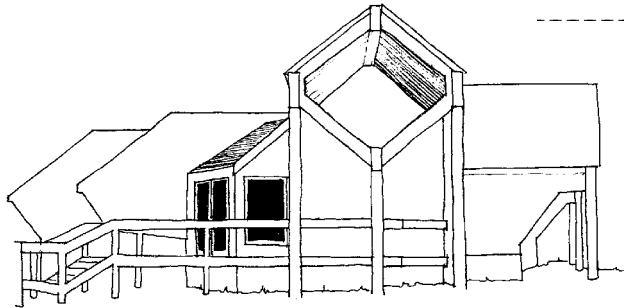
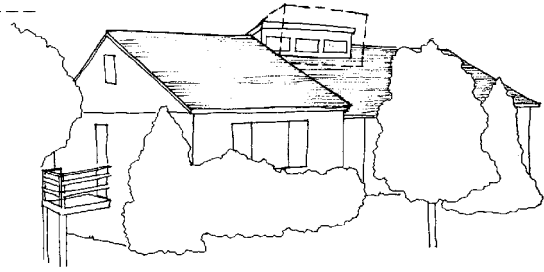
3. Another example of a dormer in the proper scale.

buildings, but have the added effect of putting human beings in the proper perspective when they enter to worship. The door to the traditional Japanese teahouse, on the other hand, was only about three feet high, forcing guests (royalty and peasant alike) to kneel as they entered, humbling the participants by a different architectural means.

Understanding scale and observing its use in everyday life can help us see in a new way what we design and build. ■

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4. A clerestory that is visually too small. A larger one (dotted line) might have been more successful.



5. A modern cyclops of a window that imparts strong visual impact—in part due to its relatively large scale. This device of exaggerated scale has sometimes been used successfully by postmodernists.