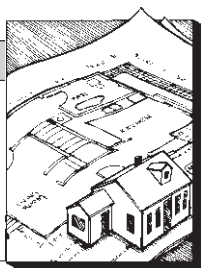


Reviving the Porch

by Gordon Tully



You've probably noticed that the revival of Victorian architecture is alive and well. Your local shopping center, this year's housing development, even downtown office buildings sport towers, deep overhangs, four-square hip roofs, and the all-important feature of late-Victorian house design, the porch.

Most of us have fond memories about porches. Mine are of sitting on our screened porch in Omaha on sweltering nights, talking, rocking, saluting the occasional passing neighbor, and waiting for the inevitable evening thunderstorm to cool things off. This was a time before mercury vapor lights, and before TV and central air conditioning kept people inside. One could sit on the porch in the dark, in the quiet, feeling private and protected but completely in touch with the community around. Such a porch worked best when it was up a few steps from the street, and in most eastern climates, it had to be screened.

Such a time may be gone forever, but today still offers porch experiences we can appreciate, such as reading or lounging on a sprawling veranda at the seaside or at the brow of a rolling county hill. Even in town, a porch can provide a pleasant and relaxing living space if correctly sited and designed.

However, don't build a porch just because it is stylish. Build it because you or your client have a use for it. An entryway, for instance, is a legitimate use for a porch, even though on today's budgets the full-width entry porches common on large Shingle Style houses are impractical. Steadier use as a living space is usually needed to justify a porch's expense.

Function Dictates Site and Size

The first issue to settle is when the porch is most likely to be used; that will largely dictate its location. For example, if a porch will be used mainly to take the winter sun, it must be located in a southeast sun pocket, out of the wind. If the buggy days of summer will bring its heaviest use, it must either be screened or sited so that it is exposed to a strong prevailing wind. On the seashore, porches that wrap around three sides allow you to choose whether to be in the breeze or not.

A porch's anticipated use also will dictate its size. If Ping-Pong strikes your fancy, make the porch big enough to accommodate the table, clearance for players, and a passage alongside. If you want one of those wonderful swinging couches, make the porch wide enough to set it at one end, so swinging feet will not trip up people walking down the porch.

Multipurpose and Multiseason Porches

Suppose your client wants the best of both worlds – a room that is a screened porch open to the breezes in the summer and a heated glazed porch in the winter. How do you glaze it? If

you use sliding glass doors, only half the door panels will open. Swinging doors drastically reduce usable space if they swing in and are subject to weather damage if they swing out. Doors that slide into pockets or fold to the side accordion-style are other possibilities, but both of these solutions require a lavish budget.

A more practical solution is removable glazed panels, which can be put away and replaced with screened panels in the summer. Framing and construction details must be handled carefully on such a porch. As a screened porch, the floor and walls must be constructed (and the room furnished) so that rain can enter and drain without damaging anything in the room or below it; at the same time, the porch's use as a winterized room requires insulation and good seals against the panels all around. Design and installation of the interchangeable panels must meet these needs.

When screened, such a room will often be either colder or warmer than the interior of the house. If the room is heated and cooled with an air system, a manual damper will allow the porch to be shut down when it is functioning as a screened porch. If the room is hydronically heated, the piping in the porch should either contain antifreeze or be drainable to prevent breakage during cold spring or fall nights.

Designing a Traditional Porch – The Foundation

Once you know what sort of porch you want and where it should go, the design problems become more technical, beginning with the foundation.

A typical raised porch sits on masonry piers, with boarding or lattice infill to keep out cats, skunks, and kids. To discourage termites and rot, be sure that all wood pieces land on masonry raised above grade. Where you can and where required by code, use treated wood for any pieces near the ground. And in a screened porch, remember to screen any spaces between the boards under the deck.

The column bases are probably the most vulnerable points on the porch itself. Typically, columns rest on the porch floor, creating a joint which invites water from rain or an overflowing leader. One solution is to flash the dickens out of the joint. A better idea is to make the columns from treated 4x4s or steel pipes and run them all the way to the masonry foundation (see Figure 1, next page) Then rest the floor's framing separately on the foundation, and clad the columns with finished wood. This will allow water to run through the joint rather than into it.

Column and Eaves Details

The key to a beautiful porch is to work out good column and eaves details; in practice this means a good way visually for the columns to support the roof. There are as many ways

to do this as there are carpenters and architects, but a few general principles almost always apply.

- Use an even number of columns, so there is a space and not a column in the center of the array.
- Unless you are building a modernist porch, don't use spindly columns widely spaced. In classical designs, the ratio between the column width and the space between columns seldom exceeds four times the column's width. (That is, a 6-inch column would be no more than 24-inches from its neighbor.) This ratio was greatly extended by the Victorians, but there are visual limits beyond which a porch look flimsy, regardless of its actual strength (see Figure 2).
- The upward visual thrust of a col-

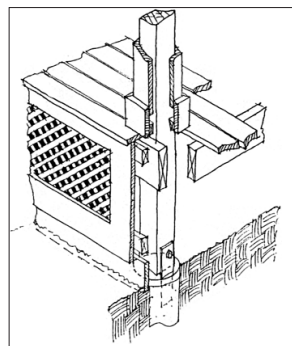


Figure 1. Rather than rest columns on the porch floor, which would invite water collection, extend pressure-treated structural posts down to the Sonotube foundation.

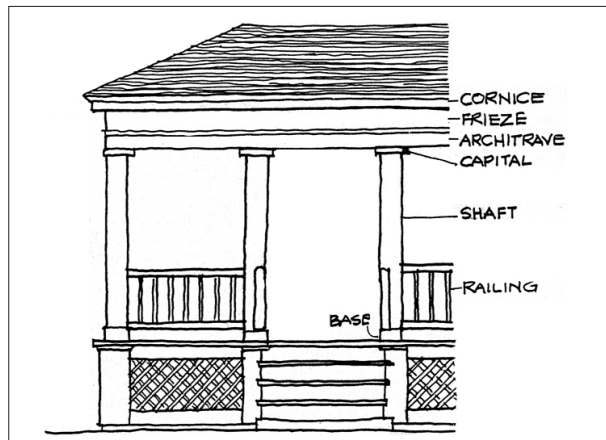


Figure 2. This Greek Revival porch features a classical column and entablature (post and lintel) design. Historically, the space between columns never exceeded four times the column's width. That rule is often stretched, as in this example where the space is six times the column's width.

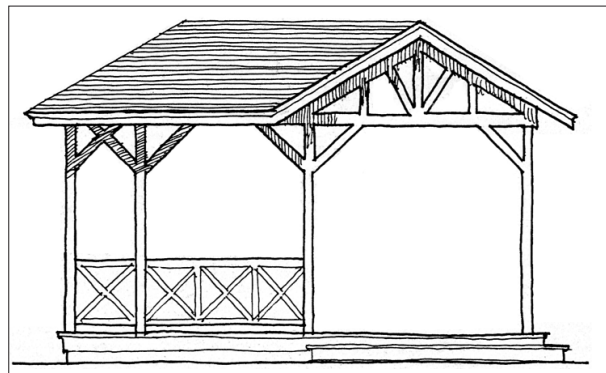
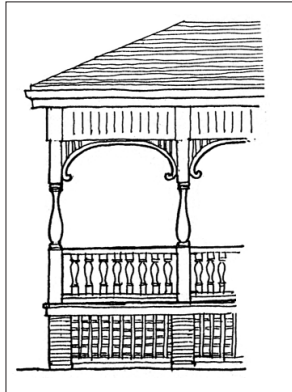


Figure 3. The upward visual thrust of a column should be spread out before it hits the roof. The Stick Style porch, above, includes struts to give visual (not structural) support to the tops of simple columns. The Queen Anne Revival porch, at right, features brackets at the top to suggest arches.



umn should be spread out before it hits the roof. Figure 3 illustrates this in two very different styles. A colonnaded porch without a lintel or bracket at the top, where the columns simply slam into the roof, usually looks terrible.

- Rules are made to be broken (though it's best to know a rule before you break it), so keep an open mind. Look for examples worth copying. If you see something you like and feel

If a porch will be used for taking in winter sun, locate it in a southeast sun pocket, out of the wind. If summer's buggy days bring the most use, it should be screened, or exposed to a strong wind.

it will work well, don't feel you have to reinvent the wheel. But beware of elaborate designs that require high maintenance. The reason you see so many dilapidated porches on otherwise sound buildings is that porches are more exposed to the elements; their vulnerable, delicate details take a beating. If you have a choice, make the pieces robust, and always construction details so that water moves away from joints.

The Roof

Many a porch is located beneath second-story windows, which limits the roof pitch — one reason that low-pitched porch roofs are the rule rather than the exception. The effect, however, is often agreeable, especially if the main house roof is tall and steep, as the low porch look like a flaring skirt and forms a spreading base for the house.

Technically, though, a low-pitched roof can be a major problem if not handled correctly. I would put a layer of ice and water shield under any roof rising less than 4 inches to the foot. If

you're using wood shingles on a low-sloped impervious roof, be sure to install furring strips beneath them to prevent cupping or rot. Flash properly, and don't put the roof so close under a window sill that snow piles up against the window. Heat from the window will melt the snow, which will then seep through the window or refreeze under it, with unpredictable results.

In certain situations, the roof might be flat, either to create a classical appearance or to accommodate a deck above. If you add a deck on such a roof, be very careful about detailing the railing. Don't lead water under the waterproof membrane where the posts join the deck, and make sure the railing is designed to resist code loadings. The same goes for the porch railings if the porch is more than a given height from the ground — check your local code. ■

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