This bedroom skylight does double duty. It maximizes light by bouncing it off the side wall and reduces glare by evening out illumination from other windows in the room.

Take It From the Top

An architect's bright ideas for using skylights

STORY AND ILLUSTRATIONS BY DUO DICKINSON

WINDOWS ARE GREAT for letting you see the world, but they're not the best way to bring light into your house. That's because, except for a few fleeting minutes at sunrise and sunset, the sun is overhead—which means the best way to capture light is from above. And the most effective method for doing that is with skylights.

Like so many building products, skylights have graduated to the "luxury" category, available in a wide variety of shapes and sizes, with all sorts of options. The most basic division is between fixed and operable skylights; the latter, while more expensive, add comfort by giving stale, hot air an escape route out of the house. There are also pyramidal skylights, copper-clad skylights, skylights that switch from clear glass to tinted, and ones that close automatically at the first hint of rain. But whichever type you choose, here are some basic guidelines to follow if you want to get the maximum benefit from it.

Duo Dickinson has been a residential architect for 25 years and practices in Madison, Connecticut. His sixth book, *The House You Build: Making Real-World Choices to Get the Home You Want,* has just been published.
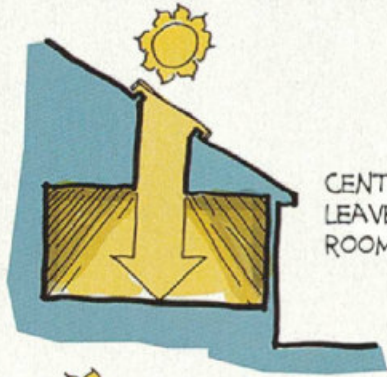
CENTERED SKYLIGHT LEAVES MOST OF THE ROOM IN THE DARK
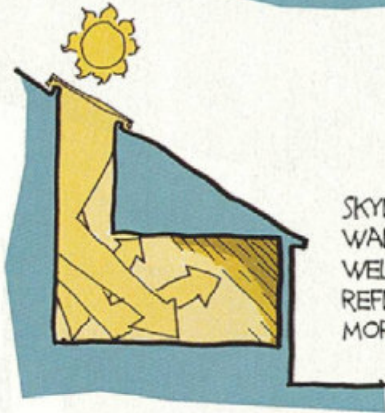
SKYLIGHTS THAT USE WALLS TO FORM THEIR WELLS ALLOW LIGHT TO REFLECT AND BRIGHTEN MORE OF THE SPACE

◄ PLACEMENT WITHIN THE ROOM

How well a skylight succeeds at brightening a room depends on where it's placed. Typically, skylights are centered in the ceiling, but "floating" a skylight in the middle of the room actually minimizes the amount of light it brings in. Light simply spills straight down to the floor, and little of it reaches the rest of the space. But if you let the wall form the back or side of the skylight well—or both—light will bounce off the wall and reach farther into the room (see illustration, left).

It's best if you set the skylight against the back wall of the room, opposite any windows. This evens out the light coming into the room, cutting down on glare and making it easier to see into and out of the space.
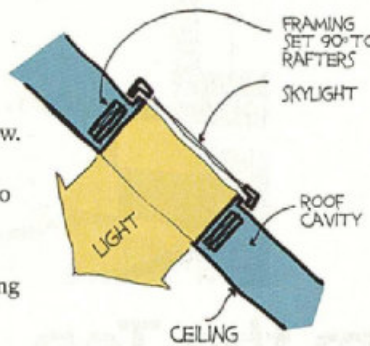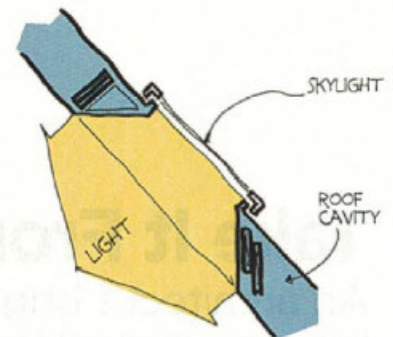
SHAPE OF THE SKYLIGHT WELL ►

In theory, the higher up you set your skylight, the more the sunlight disperses and the greater its impact on the spaces below. But if the skylight is set into a deep shaft, that defeats the purpose: Light gets trapped in the shaft and doesn't project into the room. So it's a good idea to splay, or angle, the sides of a skylight well to maximize its effectiveness. If you have a cathedral ceiling, you can accomplish the same thing by splaying the framed opening for the skylight (see illustration, right).

STANDARD FRAMED OPENING

FRAMING SET 90° TO RAFTERS
SKYLIGHT
ROOF CAVITY
LIGHT
CEILING

SPLAYED OPENING

SKYLIGHT
ROOF CAVITY
LIGHT

Controlling Heat, and Other Considerations

Cutting a hole in the roof to let in light also invites in heat and, all too often, leaks. Here are ways to avoid some of the common problems associated with skylights.

BUILD IN SHADE. Light is great, except when you don't want it. Like early on a Saturday morning. If you don't plan to wake up with the sun, make sure your skylight frame has shades built in; almost all manufacturers offer this option. Some shades are motorized, others open and close manually.

KEEP OUT RAIN. Operable skylights are great for ventilation, but you don't want one open in a rainstorm. Skylights that are too high to be closed manually come with a long wand that turns a crank to close the window. Motorized skylights work at the touch of a switch; for sub-

stantially more money, you can get an automatic closing system, keyed to a sensor that can tell if it's raining and close the window for you.

SEAL AGAINST LEAKS. While skylights are much less leak-prone than they used to be, you still need to take some extra waterproofing precautions. To avoid leaks, skylights should be set as high as possible in a roof and away from any other roof planes. In roofs with less than 15 to 20 degrees of pitch (what roofers call a 4-in-12 pitch, meaning that the roof rises 4 inches for every 12 inches it runs), the skylight will need to have a parapet—an extension of the skylight

frame that raises it above the roof plane so it can be better sealed against rain, snow, and ice. If you are ganging two or more skylights together, make sure they are far enough apart to allow for proper flashing, or use prefabricated flashing kits designed for conjoined skylights.
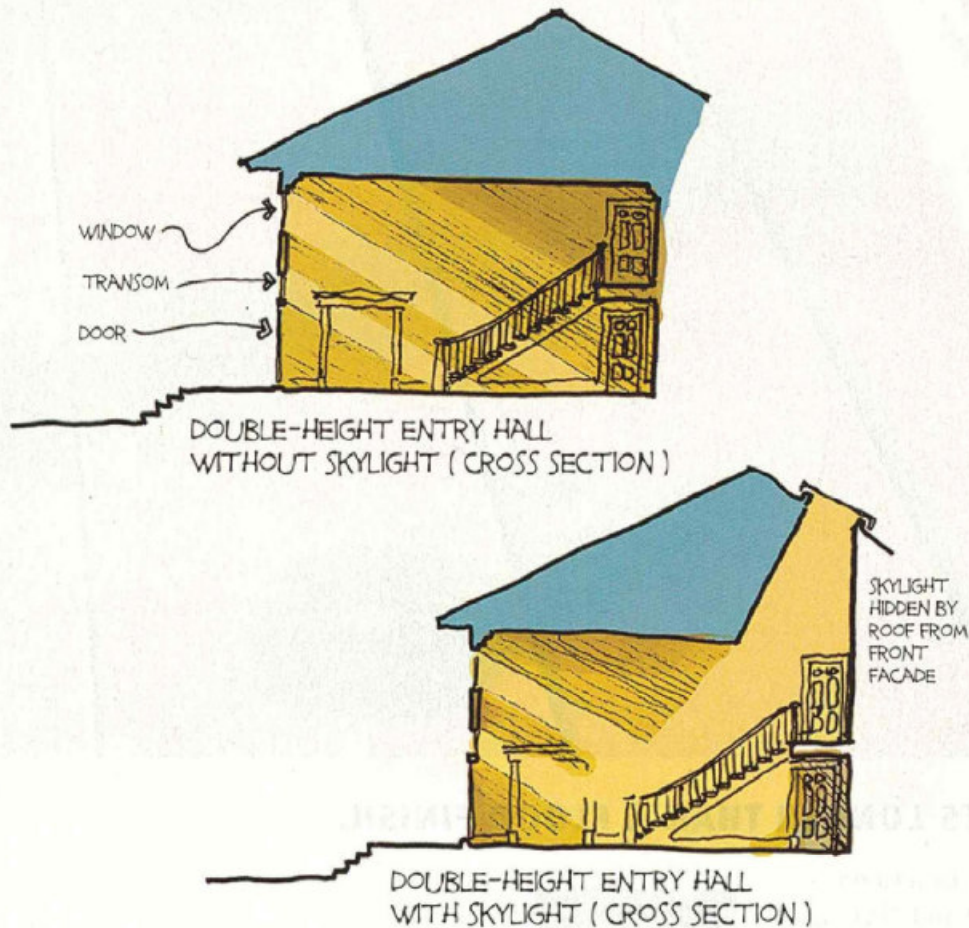
PROTECT YOUR FURNITURE. The downside of having so much light is that it can make many fabrics and painted surfaces fade. You can get skylights with UV-inhibiting glass, but it's a good idea to think in advance about placement of furniture, paintings, and other objects that would be hurt by too much sunlight.

Night Light

Skylights can also illuminate your house at night. By putting fixed lighting, such as sconces or low-voltage lights, within the skylight well, you can take advantage of the same rules that apply to natural light. Light will bounce off the sides of the skylight well and spread throughout the room.

Skylights have been around since colonial times, but dormers caught on because they were easier to weatherproof.

WINDOW
TRANSOM
DOOR

DOUBLE-HEIGHT ENTRY HALL WITHOUT SKYLIGHT (CROSS SECTION)

SKYLIGHT HIDDEN BY ROOF FROM FRONT FACADE

DOUBLE-HEIGHT ENTRY HALL WITH SKYLIGHT (CROSS SECTION)

PLACEMENT WITHIN THE HOUSE ▲

The farther away skylights are from windows on the perimeter of the house, the more effective they will be. This applies to improving ventilation as well as increasing light. One particularly good spot is at the top of a stairwell (see illustration, above). From there, light can spill down through the center of the house, brightening much of the interior.

In fact, any double-height space will maximize a skylight's impact. In many newly built homes, for example, there are large, high-ceilinged spaces for family rooms, living rooms, and entries. Strategically placed skylights, set toward the inside of the house and as close to the roof peak as possible, magnify the sense of openness and light. ◼

For more on skylights: thisoldhouse.com and type "skylight" in the search box