

Digging in — the grave that saves

You're hours from the road with waning daylight and a blizzard brewing on the horizon. You've left your palatial tent at home, opting instead for a fast and light approach. A forced bivy is imminent. What now? Quicker and drier to erect than an igloo and requiring merely a shovel and snow saw to build, a snow trench will have you safe, sound, and sleeping through the harshest of winter storms.

Terrain. Find a dense snow layer that can be cut into blocks. Seek wind-scoured terrain or dig through powder to a more consolidated layer. On a hillside, start by leveling out a platform.

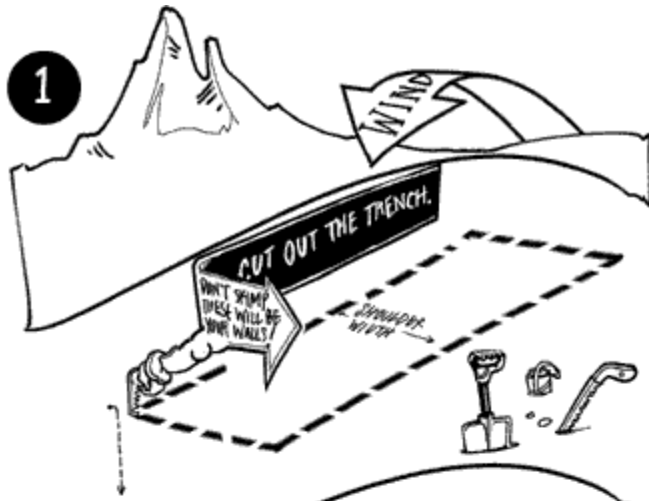
Floor plan. Using your saw blade, etch a floor plan in the snow. Align your trench parallel with the wind, with the door on the leeward side. A one-person trench should be a shoulder-width across and eight to 10 feet long. Construct multiple trenches for two or more people. Next, outline the individual blocks that will be used to construct the A-frame roof. Draw these rectangular outlines widthwise down the length of the floor plan, with thickness contingent on snow pack density (e.g. six inches thick for firm, Styrofoam snow). The block that forms the doorframe should extend about four inches longer on each side (figure 1).

Dig in. Cut a full saw blade deep into all your lines. Double-cutting the lines (with a half inch between cuts) makes the blocks easier to remove. Excavate the entryway by digging a platform about two and a half feet below the snow in front of the door-frame block, exposing its entire profile. Undercut each block with your saw or shovel blade before removing. The blocks should pop out intact with just a nudge; if they break, quarry more from another site. Set the blocks on alternating sides of the trench (figure 2).

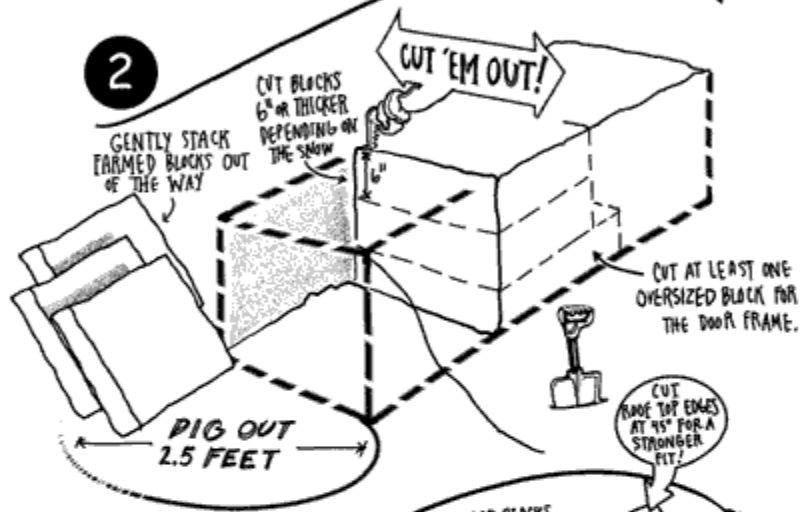
Putting on the roof. If you desire more shoulder room, undercut the sides of your trench accordingly. Next, use your saw blade to incise small ledges along both lips of the trench to anchor the blocks once they're stood up. To allow the blocks to sit flush at the apex of the A, carefully shave a 45-degree angle into one of the widthwise edges. The blocks should stand on end (lengthwise) so that the apex is higher and forms a more solid structure. Beginning at the windward side, stand the first two blocks up lengthwise and position them so that one lines up with the end of the trench and the other is offset a half-block width, providing stability once all the blocks are leaning against each other (figure 3). Continue this with each block until you are left with only the longer block, which will be placed across the width of the trench as your doorframe. Cutting a final block in half will allow you to fill the gaps at either end from the offset blocks. A block or pack can be used to plug the door after you crawl in (figure 4).

Finishing touches. Give the blocks time to meld together, then chink all the cracks to solidify the structure. Round off sharp edges and shovel a layer of loose snow over the top to create a smooth, domed shape. Ventilation holes are a must, especially if you intend to use a stove. You can also carve out shelves and add a cold sump in the entryway.

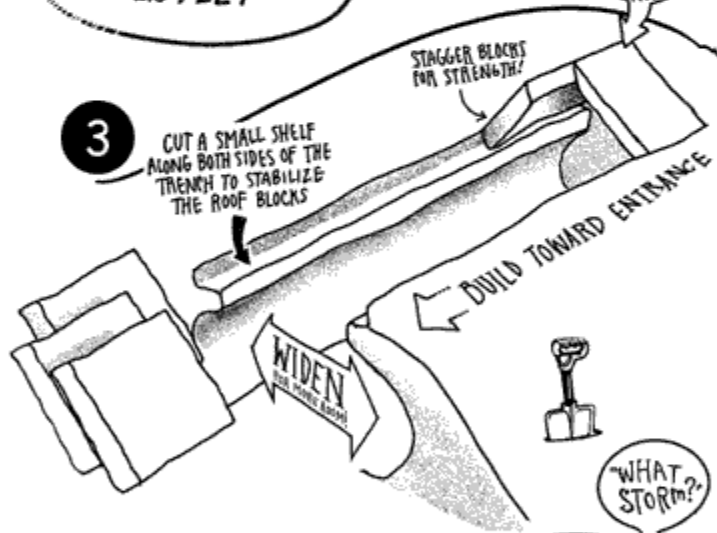
1



2



3



4

