

Construction of the Ground Floor

Traditional thatched houses can be found throughout Japan, but the walls of *gasshō*-style houses were unusual in being constructed from wood rather than mud-plaster. This was made possible thanks to Shirakawa-gō's relationship with professional carpenters from Noto Province (in present-day Ishikawa Prefecture) to the north of Shirakawa-gō, and Takayama in Hida Province (part of Gifu Prefecture) to the southeast. Shirakawa-gō did not have enough year-round work to support full-time local carpenters, so carpenters were called in from these regions when a new house was to be constructed.

The first step in *gasshō*-style construction was to lay the foundation stones on which the house's vertical posts would rest. The stones were placed in the appropriate positions to support the posts, then dozens of people hauled on ropes to raise a thick rammer suspended vertically from a wooden tower. Chanting to keep time, the villagers released the ropes; the heavy log fell and pounded the stone into the ground. Before the stone for the house's primary post was struck, it was blessed with sake; after the foundation was complete, a small ceremony was held to pray for the well-being of the future home.

Next, the professional carpenters built the framework of the house on these foundation stones. In an age before modern measuring tools, carpenters used implements such as plumb and string lines to make sure the frame was aligned properly. They also carved the bottom of the wooden posts to conform to the contours of the foundation stones, accounting for any unevenness in the rock. Next, they tested them and made adjustments until the posts stood perfectly straight.

The posts and beams that make up the frame were not connected with nails, but with joinery techniques. Pegs, tenons, or laps on one piece of wood slotted into equivalent holes or grooves on another, locking the pieces together with pegs or wedges. Assembling pieces in the correct order was essential to make sure the joints fit and stayed in place. The carpenters constructed one room at a time, starting with the room featuring the primary post (*daikoku-bashira*) and working outward.

The backbone of the house is the large beam called the "cow beam" (*ushinoki*). The interior could be expanded by using curved beams called *chōnabari*, which straddled the *ushinoki* at a 90-degree angle. The curves at the ends of the *chōnabari* were natural—the result of wind and snow slowly bending the trees during their growth. Carpenters sought out such trees for *chōnabari*, as their arches provided the house's frame with increased structural strength, much like that of a stone archway.

Once the ground floor was complete, the top was lined with thin beams called *usubari*, on which the

roof trusses would sit. From here, villagers took over the work from the carpenters, assembling and thatching the roof themselves. Small stoppers were used to prevent the roof from shifting on the *usubari*, but they and the roof were not affixed to one another.