Anatomy of rock wall:
Structure gives strength

A typical free-standing Hawaiian stone wall — called hakahaka, or hollow — stands about 4 feet high. The base, usually 4 feet wide, supports two parallel piles so a cross section of the wall can look like a "U." The width of the wall usually tapers to 3 feet on the top.

The rocks at the base, niho, are the largest, sometimes weighing more than 500 pounds and needing three or four people to maneuver them into place by hand.

The wall gets its strength and durability from the gentle taper and a series of large locking stones, which are carefully placed to hold two stones below in position.

Rocks on the outer face of the wall are called kūkulu.

In some walls, the interior is left hollow all the way to the ground, then filled with rubble. Some wall builders use larger locking stones to fill the interior, leaving room for only a foot or so of rubble at the top.

Smaller, tighter-fitting stones at the top of the wall are especially important, since that area is most susceptible to damage from humans or animals.

The best stoneworking teams can build 30 to 40 linear feet of wall per day.

The type of rock used usually depends on availability in a particular area; moss rock, lava, coral and river rock are among the choices.

Billy Fields, a Big Island mason, said the cost to commission a wall is $8.50 to $15 a square foot, depending on the type of rock and structure.

Think you and your friends can do it yourself? R&R Moss Rock in Nanakuli is the principal supplier of natural moss rock on Oahu, much of it taken from open sites on the Leeward coast. The material will cost about $75 per cubic yard, delivered to your door.

— Mike Leidemann