Build a garden retaining wall without mortar

A handsome natural stone retaining wall adds beauty and value to both commercial and residential property.

It is true that an experienced "stone wall builder" can readily build the "perfect" stone wall—and it will last forever. But the building of the stone wall is a project that can also be undertaken by a do-it-yourselfer without the mess and expense of mortar or concrete —with relative ease and great success.

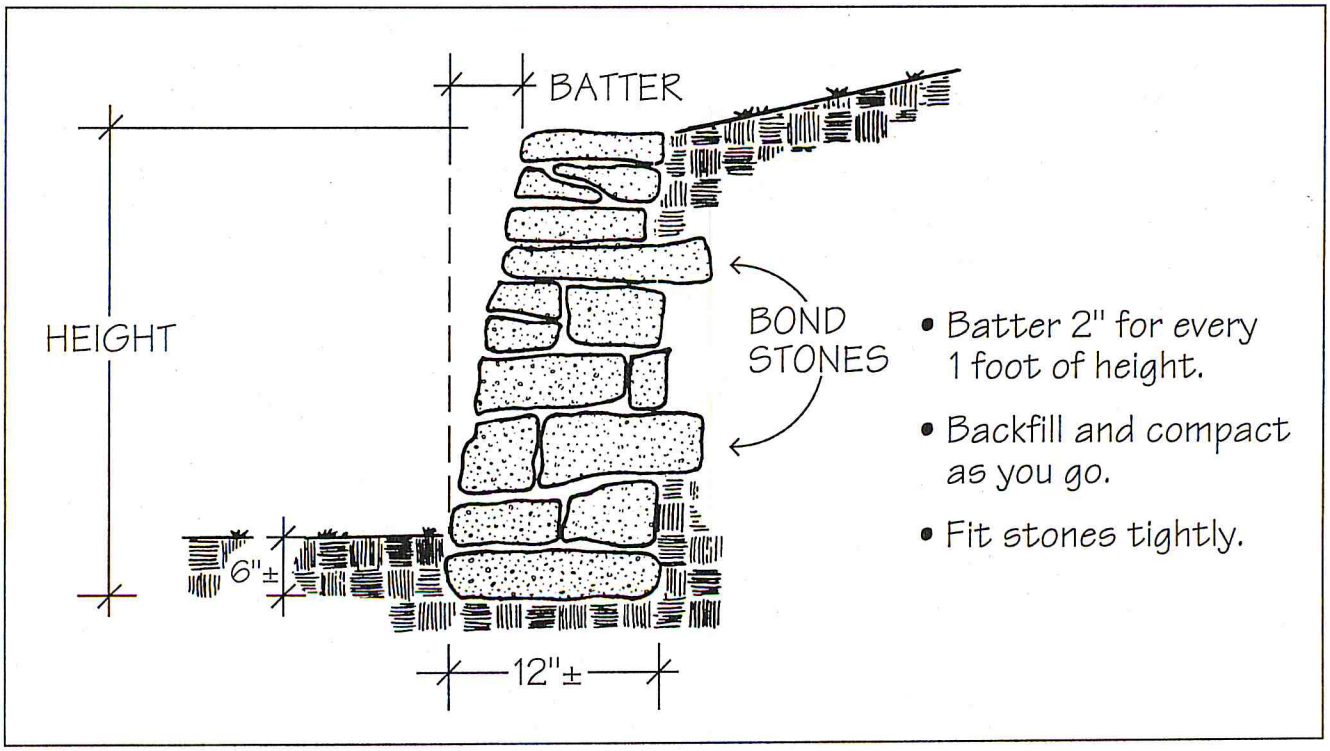
Plan Ahead

First you have to determine the length of the wall (in feet) and the height of the wall (in feet). If the wall is to be no more than 4-feet high, you will be able to use stones about 1-foot wide. That will make your retaining wall about 1-foot thick.

Next, visit your stone dealer to see the various types, colors and materials available that best suit your landscape plan. There are granites, limestones, sandstones, quartzites, flagging, and other specialty ledge type stones that will suit the purpose. Your local stone dealer can offer you his recommendations and suggestions.

Remember, stone is heavy. (It lasts forever). Don't get discouraged when your stone dealer talks about price per ton of various stones.

Let us say you determined that your



wall will be 50-feet long and 2-feet wide. Here is the formula:

50' x 2' x 1' = 100 Cubic Feet (CF)

The stone will probably weigh an average of 125 pounds per cubic foot.

100 cf x 125 pounds/cf = 6¼ tons.

Your planned 50-foot retaining wall indicates that you will need about 6¼ tons of stone. Take a little extra to allow for a good selection. The cost can range from $100 to $200 or more, per ton—depending upon the type of stone, how it is to be delivered (or dumped), where it is to be delivered, etc.

Be sure to buy from a reliable stone dealer. Sometimes there is a "bargain" stone available—which may have been blasted free with dynamite—and which now contains microscopic fissures that can hold water and freeze, spall, and deteriorate. All of your effort will have been wasted if the stone material is not of good quality and the wall stone deteriorates.

Tools and Materials

(Some of these may be rented or borrowed from your stone supplier).

1. Heavy Hammer
2. Folding Rule
3. Carpenter's Level
4. Pick and Shovel
5. String Line
6. Crushed stone or gravel
7. Selected Stone

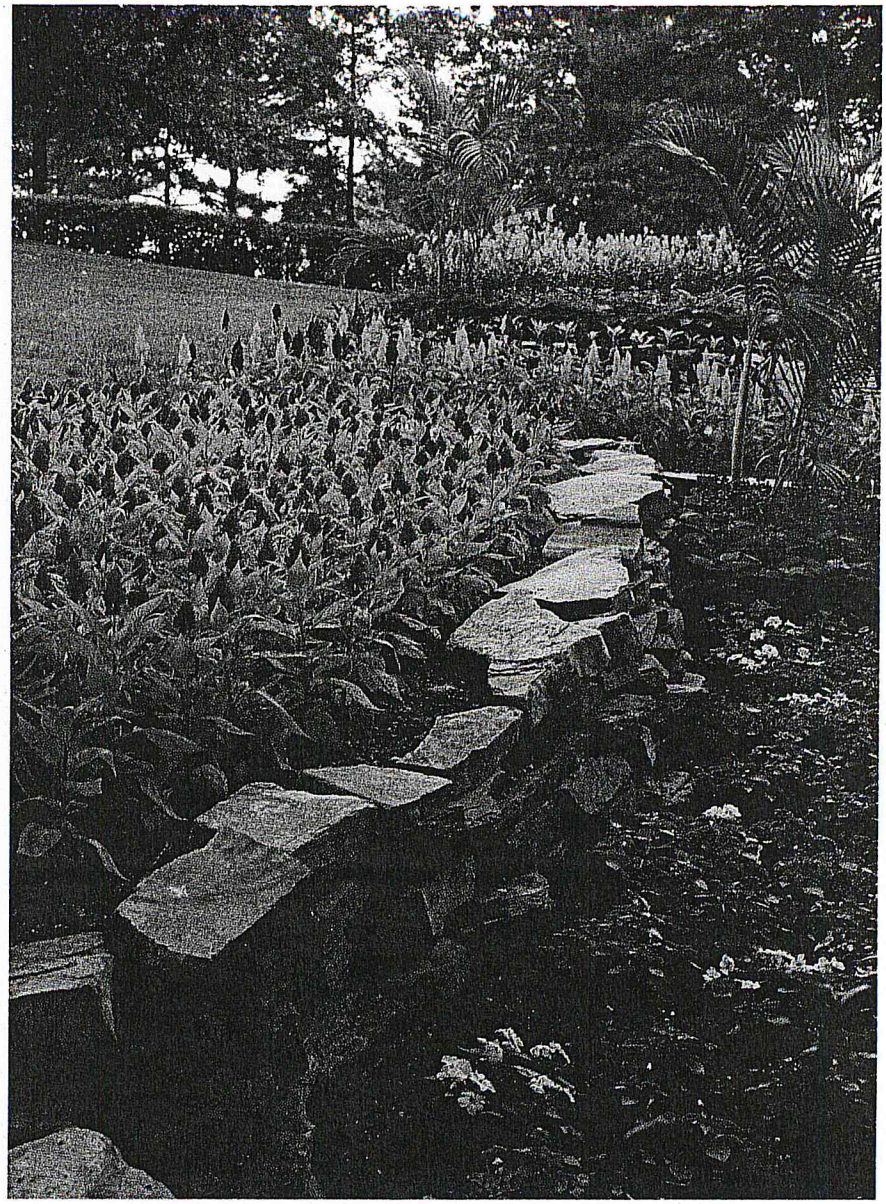
Getting Started

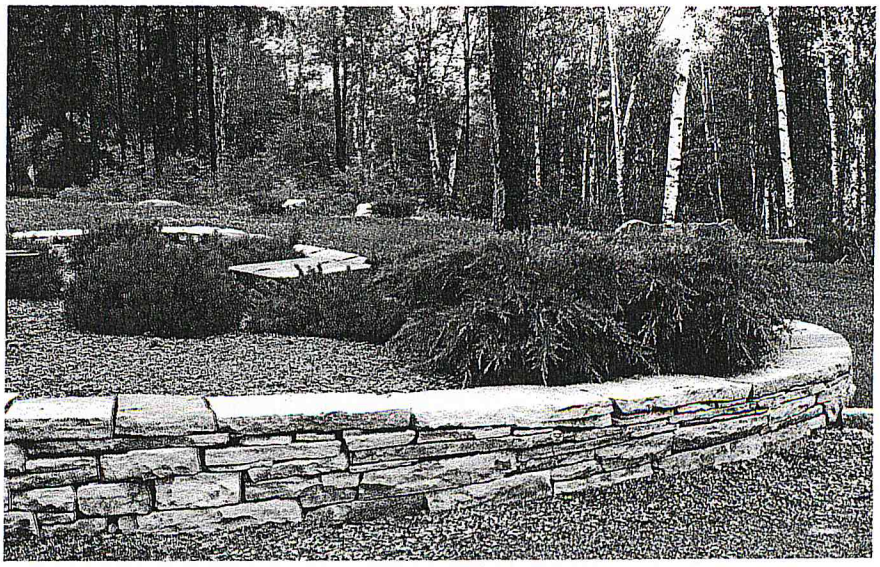
Dig a trench about 6-inches deep and about 12" wide (or as wide as your largest stone) along the base of the proposed location of the wall. Fill it with compacted gravel or crushed stone as a base. There is no elaborate footing required for a wall without mortar since the stones are not bonded together and will rise and fall with the frost.

Sort the wall stone by size with all the 5" thick pieces; 4½" pieces, 4" thick pieces, etc. Keep aside the most attractive stones to use as the capstone (top row).

Place the largest stones in the trench, end to end. For best results, lay all of your stones down flat—as they would lie naturally on the ground.

Now, as you begin to stack the wall, working from one end to the other, you must remember to slope it back toward the high ground or "batter" the wall. This is accomplished by sim-





ply standing your level on end and measuring to the face of the wall as shown in the drawing.

As you build, try to avoid continuous horizontal and vertical joints by breaking them up with larger and smaller stones. Place stones so they fit tightly together for strength and a nice appearance. Fill in the area behind your wall with dirt and compact it as you go. Every now and then, turn a long stone into the hillside to act as an anchor or "bond" stone. This will improve the stability of the wall.

Last of all, place the nice flat pieces of stone you have saved to cap off the wall on top.

Take your time. The final result will be very much worth the effort in the apearance of your property and in its increased market value.

Photography: Courtesy Steve Hoben, Georgia Marble Company; Barbara Morey, Champlain Stone Ltd.