
ON PATHS AND HILLS

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Gardening on a hillside requires a few decisions not needed for a flat garden. One of the decisions is how best to get up and down the hill. On our property, an existing horse trail going down the hill on the diagonal was the natural main path. When widening that trail, I decided to slope the path into the uphill side, with a ditch on the uphill side to act as a gutter. A few major rainstorms revealed the folly of that, as the ditch grew into a stream bed that threatened to take over the path, and the water created great muddy messes at the bottom of the hill. By then I had read that a better approach is to slope the path to the downhill side to help the water run off the path as soon as possible, before it becomes a stream (1). Doing that was a definite improvement. Many minor improvements followed over the years as the need for them became apparent, either by seeing the damage after a storm, or by going out into a storm to see where the water was going.

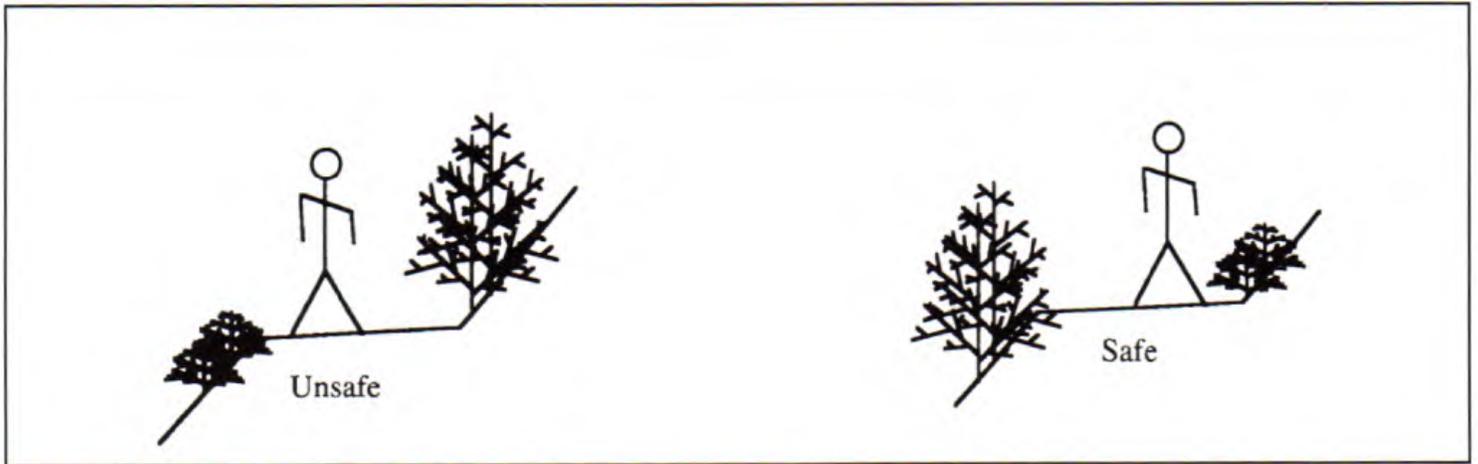
A major decision in any garden is laying out the beds and paths, with a few extra nuances for a hillside garden. We decided to have long slender beds following the contour of the hill, such that most of the paths could be cut into the hillside and be relatively flat rather than going up and down the hill. We also decided to make the primary paths 5' wide to handle two people side by side, to handle garden carts easily, and to reduce the effect of plants encroaching on the path as they grow.

Another decision is how to surface the paths. We started with shredded hardwood mulch, which was soft and easy to walk on, and stayed on the paths pretty well during a rainstorm. The major problems were the cost and effort of renewing it every year or two, and the fact that the rotting mulch made very nice soft soil where we didn't want anything to grow. The soft soil also led to rutting and slipping when we drove a tractor up the hill. The next thing we tried was bank run gravel, with stones ranging in size from about 1" on down to pea gravel. One problem with gravel is that it runs down hill in a rainstorm and needs to be raked back up, and raked out of the beds on the downhill sides of the paths. Another problem is that gravel rolls underfoot, which is a safety problem on a steep path. Both of these problems were abated considerably by getting the gravel embedded into the soil, which the tractor did nicely when the soil was damp, and by keeping it just a few stones thick. The gravel then made a pretty good surface, and renewing it amounted to adding a little more every few years as it got pushed into the soil. While an unexpected bonus was that *Houstonia caerulea* (Bluets) alongside the paths seeded themselves into the gravel, transplanting them back to the edges was a new maintenance problem since we couldn't bear to walk on them.

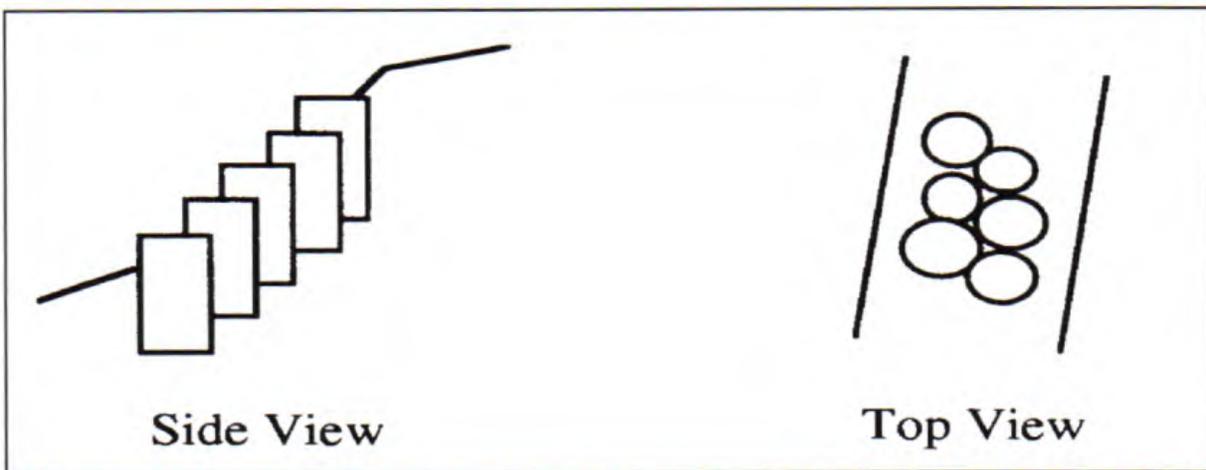
Parts of a few very steep paths demanded steps. We used short sections of railroad ties in one such area. Another type of steps we used was patterned after a design we had seen in the Pacific Northwest. They consisted of about 3'

lengths of tree trunks planted on end as "stumps", quite near each other, with each stump partly beside and partly below the previous one, such that your feet naturally go from one to the next, with the top of each stump about 7" or so lower than its neighbor. Four or five such steps take very little space to negotiate a steep part of a path in a fairly comfortable manner. Other than getting the rather good sized logs to the right place on the hill, they are quite easy to install, and the untreated stumps we used lasted around ten years before they rotted away and needed to be replaced.

After making the paths, we had planted the beds following the general concept of putting low-growing plants near the paths, with taller plants toward the centers of the beds. The idea was to allow more of the plants to be seen from the paths, to avoid a "tunnel" effect of having tall plants near the paths, and to reduce the need for pruning to keep the paths open. Over time, we began to notice that we had feelings of being uncomfortable or unsafe on some parts of a path, yet felt quite safe on other parts of the same path. Upon studying the differences, we began to realize these different feelings could be due to the different heights of the plants near the paths. Some parts of the paths had deviated from our general concept of having low plants along the edges, because of having put the paths between existing trees, *Kalmia* and *Rhododendron periclymenoides*. Where those tall plants were near the downhill side of the path, we felt safe. On the other hand, where those tall plants were near the uphill side of the path, we felt unsafe. We think there are two reasons for these feelings: while people naturally keep some comfortable distance from tall plants (similar to the way we keep some distance from other people—our



Siting large and small plants along a hillside path



Using tree-trunk sections to build hillside steps

“comfort zone”), we don’t do that for low plants; and people feel less comfortable walking on a slope than walking on flat ground, probably since walking on a slope includes the possibility of falling down the hill. We conclude that tall plants on the uphill side of a path quite literally “push you off the hill” as you maintain your comfort zone. Those same tall plants also emphasize your feeling of being on a hillside, particularly when the downhill side has low plantings directly across from the tall plants. For the same reasons, tall

plants on the downhill side of a path literally “hold you on the hill”, and reduce the feeling of being on a hillside. The figures illustrate these concepts. Tall plants on the downhill side of a path can enhance safety, since avoiding the plants also avoids stepping on a potentially soft or crumbly downhill edge of the path.

- (1) *The Earth Manual—How To Work On Wild Land Without Taming It*, Malcolm Margolin, Heyday Books, Berkeley, CA, 1985, pp. 214-215. A very informative book written with a sense of humor.

Bob and Denise Stelloh recently sold their house and garden in Darnestown, Maryland (some of you may remember having had lunch there as part of the 1988 Azalea Society of America Convention hosted by the Brookside Gardens Chapter) and moved to a different hillside property in Hendersonville, North Carolina. These thoughts came to mind in the course of describing their previous garden to its new owners. □