

Newspaper Walls

Bob Stelloh, Hendersonville, North Carolina

Huh? You can't make walls out of newspaper! Well, yes, you can, and here's how.

The late Alexej "Sasha" Borkovec of Washington, D.C., a stalwart of the North American Rock Garden Society, had admired garden retaining walls made of peat blocks at the Royal Botanical Garden in Edinburgh, and was interested in replicating them in his garden. Since peat blocks would be prohibitively expensive in Washington, D.C., he thought of using newspaper instead. After some experimentation he eventually did build several garden walls of newspaper, and documented his efforts in early 1996 on the Alpine-L email group for rock gardeners. When I read his descriptive articles I thought, "I can do that," and started saving newspapers. In 2005 I emailed Sasha with questions, and began preparing the area where the wall would go along our driveway. Finally, in the spring of 2011, my wife **Audrey** and I built a small section of wall to test our abilities and the results.

The concept is simple: you build a standard "one over two" brick wall, except you use sections of dripping wet, water-soaked, folded newspapers as the bricks. Another difference is that, based on Sasha's experiments, a newspaper wall should slope away from you about 15 degrees. And, unlike brick or stone, a newspaper wall settles as it ages: about 10% in the first few months (so just make it that much higher when you build it); and up to about 30% after 10 years, at which point you can simply add to it to make it higher.

A disadvantage of a newspaper wall is you can't plant in it like you might in the niches in a rock wall, because the newspaper wall has no niches. While mosses and some surface-rooted plants can live on a newspaper wall, plants cannot live in it, because the newspaper wall is completely anaerobic. That and the trace amount of sulfur in newsprint make it unpalatable to insects, including termites, and account for the newspaper wall's relatively long life of at least 20 years.

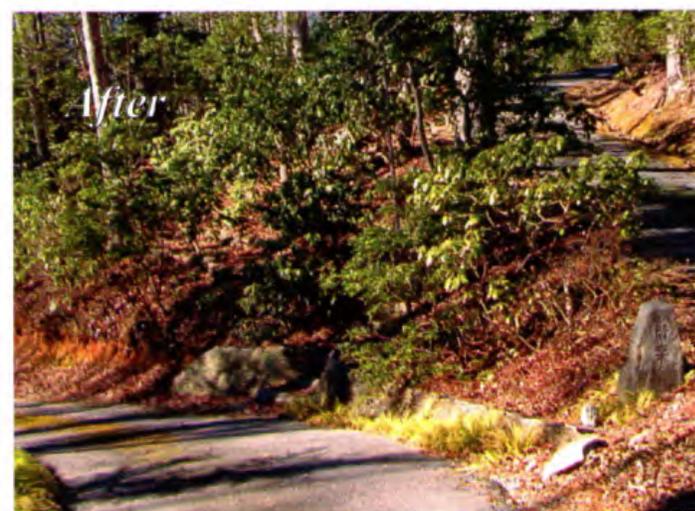
Since you can't plant in it, and it won't last forever, why should you use newspaper to build a wall? One advantage is that once it gets wet it stays wet for a long time, and can keep the soil next to it moist for weeks. Another advantage is it acquires an attractive appearance, turning browner as the years go by, and eventually looking much like a huge log. And the price is right—either free when

you save your own newspapers, or very inexpensive from a paper recycler. Finally, it gives you bragging rights, as it is unique. Most visitors say "Wow! What's that made out of?" when they see it. You may have noticed it if you visited our garden as part of the 2012 Convention in Asheville, North Carolina.



Basic Procedures

We started small, with a short, low wall at the beginning of our driveway. It was about 18 feet long by 20 inches high and then turned in about two feet toward a set of steps near the far end. A small piece then came out from the steps, turned to follow the embankment and continued another foot. In the fall of 2013 we added another six feet onto the piece of wall to the left of the steps (and finally used up all the newspapers being saved in our garage).



Following the directions given by Sasha, we started by sloping the dirt along the back of the existing dirt embankment at about a 15 degree angle away from the driveway. To easily check the slope with a level as we dug the dirt away, I made a right triangle of scrap plywood with one side at a 15 degree angle. After that we dug a footer for the wall, which was a trench about 13 inches wide and six inches below ground level. We kept some of the dirt nearby to use as backfill behind the wall whenever it got about another four inches or so higher.

The next step was to make our “bricks.” Each brick was a collection of newspaper sections inserted inside each other to total about 20 pages, folded once to about 11.5 x 11.5 inches—the way they are folded in a vending machine. In our small town of Hendersonville, North Carolina, that was usually a whole daily paper. We discarded the colored ad sections since they are a little smaller than the regular newspaper sections, and seem to be a different type of paper. It took much longer than we thought to go through big stacks of newspapers to make our 20-page bricks, so now we create bricks as we save the newspapers every few days.



Then we wet the newspaper bricks by putting them in plastic tubs and wheelbarrows and filling the containers with water. We discovered that three or four hours was about the right time to soak them—much less and some inside pages weren’t wet yet; much more and some sections could fall apart when you picked them up to use them on the wall. We also discovered the sections swelled up as they got wet, and absorbed water better if they were in a container on edge, side-by-side with the open sides of the sections up, rather than lying flat on top of each other.

To build the wall, we took sections out of the water, completely soaked through and dripping wet, and laid

them down next to each other with the folds toward us, working from one end of the footing to the other. The very first layer had the section ends just touching, with the folds toward us and touching the front of the trench, leaving an inch or so of space between the backs of the sections and the dirt embankment. From then on we laid the sections over each of the cracks between the sections of the layer below—the familiar “one over two” style used in brick walls or stone walls.

A mistake we discovered immediately was that we had made our work much harder by having planted some ornamental grass the year before, between the edge of the driveway and where our wall would be. To avoid stepping on the grass we had to stand away from the wall and bend way over and down to place each section, which was extra hard on our backs.

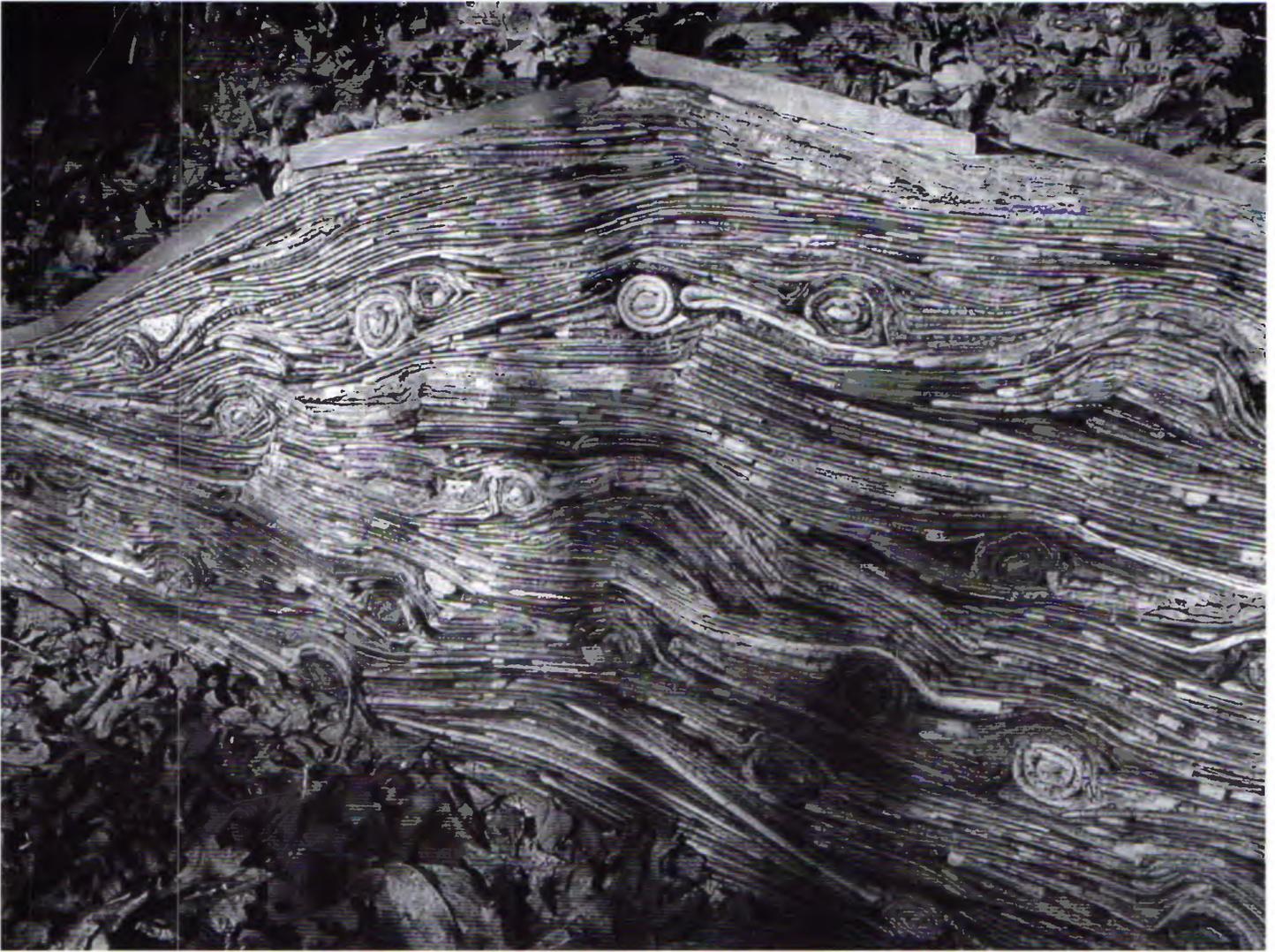
Once we got above ground level the work went more easily. We placed each layer a very little further back than the layer below to maintain the 15 degree slope of the face of the wall. Placing the fold of each section toward us made the top of the wall slightly higher than the back, which made the top of the wall slope backwards as well. If the top became too flat, we would fold a section again, to make it about 11.5 x 8 inches, and lay it on the wall with that double fold toward us to accentuate its front thickness.

When the wall got about four inches high, we carefully filled the gap between the solid dirt and the back of the newspaper sections with some of the loose dirt from the trench we had dug, and tamped it down firmly with an old broom handle. We repeated that whenever we had added another four inches or so of newspapers. We discovered it was best to do it that frequently to be sure the tamping made the dirt behind the wall very firm.

Variations

After a while we started playing with the design. First we made some waves or humps in the wall by repeatedly violating the one-over-two rule. Next we made occasional knots in the wall by rolling up a section of newspaper as tightly as possible, laying it with the rolled end facing out, then laying other sections up to it until the levels matched, and then laying sections over the knot normally.

Making a gentle curve in the wall to follow the curve of the driveway was no harder than making a straight wall. Making a right angle turn should also be fairly easy. In our case we needed wide turns, about 135 degrees, to tie in to some wooden steps near the end of our test wall. Such turns are much harder to make. We had to tear some



of the newspaper sections into halves or thirds, and to refold some of them into triangles before laying them, and to then fill in on each end of those triangles. The difficulty was we had to think about each corner section before laying it on the wall: how to make the turn, and how to maintain the proper slope on the face of the wall



and on the top of the wall.

When the wall was about 10% higher than we wanted it to be, we were finished except for protecting the top of the wall. The top layer needs protection to keep it from drying out and perhaps being blown away. While we used some 12" square pieces of slate we already had, almost any relatively thin and flat stone would work perfectly for this purpose.

Much too late to do anything about it, we noticed we now had a driveway that was visually narrower along our new wall. And most of the narrower part of the driveway was on a curve, which seems to make it more noticeable. About six months after we had built the first part of the wall, we happened to come home at exactly the same time as a workman was backing his pickup truck out of the driveway too rapidly and carelessly, and backed right into the newspaper wall at a slight angle. Instead of stopping, he gunned the engine and spun the wheel against the wall until, horrified, we honked our horn at him long and loud. Much to our relief, there was almost no dam-

age to the wall. The wheel had chewed away about 3/8" of the wall from spinning against it, and that was all. No movement of the wall from the impact. So it appears this newspaper wall is quite sturdy.



We think the test was completely successful—we could do the work, and we like the results. Now that our backs have recovered, we are collecting more newspapers and looking for sources of newspapers in bulk, with the idea of someday finishing the wall along the entire length of our driveway. Meanwhile we are admiring and encouraging the volunteer seedlings of *Goodyera pubescens* (rattlesnake orchid) at the beginning of the wall. Somehow they had attracted enough soil to have prospered for several years. Their existence happily confirms the earlier comment of being able to support plant life on a newspaper wall.



Further Reading

https://www.nargs.org/sites/default/files/free-rgq-downloads/VOL_42_NO_4.pdf

[the seminal article, pp. 35-38 of 60 in the *Bulletin of the North American Rock Garden Society* Volume 42 Number 4, 1984]

<http://mailman.science.uu.nl/pipermail/alpine-l/1996-April/022311.html> [Paper Walls 1: the background and general comments on newspaper walls]

<http://mailman.science.uu.nl/pipermail/alpine-l/1996-April/022485.html> [Paper Walls 2: the technique and comments on building newspaper walls]

http://www.pvcnargs.org/remembering_sasha.htm [images of Sasha, his garden, and his paper walls]

Bob Stellob gardened with his wife **Audrey** on several acres in Hendersonville, North Carolina. He was treasurer of ASA from 1995 through 2007, was the ASA webmaster 1999 to early 2014, and was an occasional contributor to *The Azalean*. A memorial to Bob is on page 17.



Call for Articles

The Azalean needs good articles about azaleas, their care, and their use in the landscape. Ideas include:

- Articles describing new public gardens or special azalea.
- Collections being created in your area.
- Descriptions and photographs of Society members' gardens.
- Information about azalea festivals and sales.
- Historic garden restoration stories.
- Articles about noteworthy azalea hybrid groups or new species or cultivar introductions.

Submit articles as Microsoft Word documents. Illustrations are highly encouraged and at least 4 x 6 inches at 300 dpi. Please include photo credits. Submit to theazalean@gmail.com.