



Crevice gardens can showcase a wide variety of plants in narrow spaces. PHOTO BY KENTON J. SETH

Thriving between the cracks

Crevice gardens, a specialized type of rock garden, are a great way to feature distinctive plants

By Loree Bohl

Two simple questions asked by Kenton J. Seth illustrate the idea behind the crevice garden: “Do you have weeds in the cracks of your sidewalk?” and “Do those plants grow better than some plants in the garden?”

Seth, owner of Paintbrush Gardens in Grand Junction, Colorado, further explained crevice gardening as “a style of rock gardening which is essentially paving your raised bed with rocks, and then planting plants in those tiny little spaces.”

Crevice gardening formally began in the Czech Republic, before the fall of the Iron Curtain, according to Mike Kintgen, curator of the Alpine Collection at the

Denver Botanic Gardens. “Czech gardeners have some of the most amazing and beautiful crevice gardens filled with very choice alpine plant material,” Kintgen said. “They are some of the most devoted and esteemed rock gardeners in the world.”

Zdeněk Zvolánek, self-described “missionary for crevice rock gardening” and internationally recognized expert in the field, traces the genesis of the crevice garden back even farther. “There was a construction with ‘vertical stratification’ in England made for the Chelsea [Flower] Show in 1923 by Symons-Jeune. It was very nice, brave, but crevices there were not planted, so it was only [a] romantic and decorative effect.”

Zvolánek and another Czech, botanist Josef Halda, are credited with perfecting this style of gardening and bringing it to North America. Zvolánek, however, also credits American plantsman and author H. Lincoln Foster; his writings inspired the Czechs, who “discovered quickly all the advantages of this modern kind of construction.”

In the United States, the current epicenter of crevice gardening is Colorado. The Denver Botanic Gardens features several crevice gardens. Kintgen, who has been involved with the garden since the age of 11 when he began volunteering there, explained that three crevice gardens are nestled within the Rock ▶

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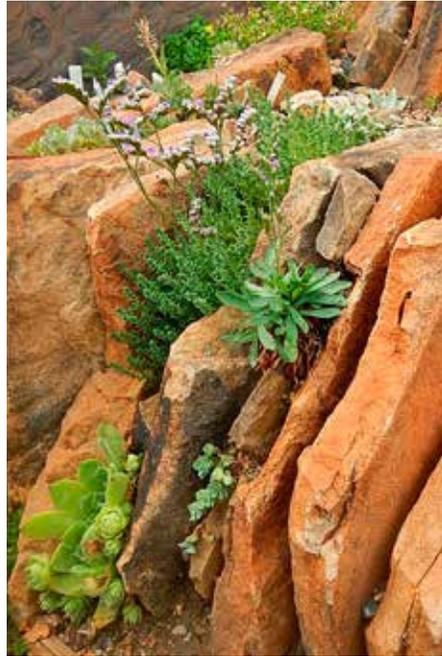
Alpine Garden. “One large, south-facing xeric for steppe flora, one east and north-facing for alpinines, and one partially shady, north-facing for *Primula*, *Saxifraga* and other cool-loving, shade-needing (in Colorado) species.”

The crevice advantage

Home gardeners in Denver and beyond are discovering this style of planting. It allows them to successfully grow plants they had previously failed at.

Another benefit, as Seth pointed out, is one sure to please gardeners frustrated with shrinking space: the peaks and valleys of a crevice garden actually increase the surface area of the garden. There’s more room available for plants, and the topography creates distinct microclimates, such as shady spots, where none previously existed.

Additionally, the plants are smaller



Sedum acre, *Sempervivum* and *Limonium binervosum* (also known as rock sea-lavender) thrive in rock crevices. PHOTO BY KENTON J. SETH

in size. In the space where only two or three shrubs might grow, 20 or 30 of these pocket-sized gems can flourish.

Like those cracks in the sidewalk, the crevice provides an ideal microclimate — a cool, yet moist place for the plant’s roots to grow. Available water is quickly funneled down along the rocks, which encourages deeper root growth, while the top of the plant stays dry.

Rock gardening has a reputation for demanding excessive amounts of attention and care, but crevice gardening is often referred to as “the lazy man’s rock garden.” Once the crevice garden is built, little in the way of maintenance is required.

Building a crevice garden requires strength and patience, and there’s no rushing that which must be done right. “Take time to do the stone work correctly,” Kintgen advised. “A well-made crevice garden is an investment in time;



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however, it will last for decades and is capable of growing plants that will not grow anywhere else in the garden. A well-made crevice garden is a work of art, beautiful throughout the seasons.”

Creating the crevices

Seth estimated that 50–75 percent of his time is spent building crevice gardens, but it’s an investment well spent. He credited these gardens for making

xeriscaping much more interesting.

When choosing the location for a new crevice garden, a site with little competition from nearby trees is best. Tree roots may grow into the garden and compete with the plants for available moisture, and falling leaves can create a maintenance nightmare.

The crevice garden style is one that works on any scale, from an entire garden to a small trough. “Don’t skimp ▶



Native to Colorado, *Physaria bellii* blooms at the Endangered Plant Garden at Denver Botanic Gardens.
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Self-described "missionary for crevice rock gardening," Zdeněk Zvolánek constructs a large installation. PHOTO COURTESY OF ZDENĚK ZVOLÁNEK



on rock! It takes way more rock to build a crevice garden than a regular rock garden,” Kintgen said. “If you find yourself on a budget, build a small crevice garden that can be added onto in time.”

Seth starts work with the outside edge — the foundation stones — for support and boundary development. He places big stones along the ends, then smaller stones in the middle on a mound of material, typically sand. This big-to-small arrangement is the opposite of how the finished garden looks, where the middle rocks appear to be taller. As he builds the garden, he keeps the rock strata aligned, so the look stays organized and natural: he described the visual effect as “one stone broken into pieces.” For inspiration, he looks to natural rock formations.

The typical foundation on which the rocks are placed is builder’s sand



Water-wise cacti (shown here are *Echinocereus rechinbachii* var. *caespitosus* in full bloom) are ideal plantings for crevice gardens. PHOTO BY KENTON J. SETH

or concrete sand — not sand meant for a kid’s sandbox. A 50/50 mix of sand and gravel with no organic material can also be used. “Sand has texture, lots of oxygen and humidity in the air spaces. Humidity in soil is good for the roots,” Seth explained. This mix provides excellent drainage and also protects the rocks from frost heave in the winter. A top dressing of gravel keeps the sand from washing away.

The rocks must be buried deep enough that they won’t tip over. “You’re burying 90 percent of the rock cash you spend,” Seth lamented. While round stones aren’t traditional, they can be used. Recycled concrete (aka urbanite) is another option.

“Make sure the rocks touch one another and actually lock one another into place,” Kintgen said. “Planting pockets are created between the stones by ▶



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leaving small spaces between layers of stone.”

The width of the space between rock layers is key in creating a true crevice garden: 1 inch is the target normally mentioned, although larger plants may require wider spacing. Broad crevices risk not creating that ideal microclimate, and drainage will suffer, too.

When asked about the aesthetic of a successful crevice garden, Zvolánek said some constructions fail because they are too flat and uniform, while others have “crevices imitating canyons, where the surface of substrates is not level with the tops of the stones.”

Future maintenance is also a consideration during the building phase. “Make sure to leave access points and places to step in the garden if it is large. One needs to be able to reach every nook and cranny in the garden to weed and



Primula and *Saxifraga* tucked neatly into crevices.
PHOTO BY KENTON J. SETH

plant,” Kintgen cautioned.

When it’s finally time to plant, Seth shocks many by bare-rooting the plants before packing them into small planting pockets. He goes so far as to wash the roots free of soil and then uses a Hori-Hori, butter knife or even chopsticks to carefully work the delicate roots down into the sand. By removing the existing soil, he’s forcing the roots to grow down into the layers, along and beneath the rocks.

Plants for crevices

“Crevice gardens were originally created to grow alpiners in an environment that resembles, both to the eye and functionally, their native habitats,” Kintgen said. “One could grow whatever they please in a crevice garden. Larger plants will cover much of the stonework. Smaller plants, such as choice cacti,

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Designed by curator Mike Kintgen, "Roots 'n Rocks" is the featured crevice garden in the Mordecai Children's Garden at Denver Botanic Gardens. PHOTO BY KENTON J. SETH

dwarf shrubby plants and alpines, are the best options."

Truls Jensen is co-owner of Wild Ginger Farm in Beavercreek, Oregon, a retail nursery specializing in rock garden, alpine and woodland plants from around the world. Jensen has built several crevice gardens over the years, including a few smaller, trough versions. He reported our native *Penstemon* are particularly well adapted to life in a crevice garden, as are *Lewisia*, *Primula* and *Campanula*.

Jensen has been known to anchor smaller, more delicate plants in place with groupings of *Jovibarba*. These tiny succulents look like *Sempervivum* but instead of expanding via offsets on stolons, they produce new plants attached directly to the mother plant, staying in tight clumps that fit within the crevice. *J. heuffelii* is a particularly attractive choice, with shades of red and green. ▶



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J. birta and *J. sobolifera* both produce off-sets that roll off the mother plant to form new plants, a habit which has earned them the common name "rollers."

Jensen grows several *Saxifraga*, including *S. × anglica* 'Cranbourne' — "an early flowering cushion saxifrage with small, bright green foliage and large pink flowers held just above the cushion." *S. × boydii* 'Cherrytrees' is a dwarf plant with clear yellow flowers. *Saxifraga* means "rock breaker" in Latin, and these diminutive plants often grow in rock crevices in their native alpine habitats.

Scleranthus uniflorus, a New Zealand native, and *Azorella trifurcata* 'Nana' from Chile form dense mounding cushions that fill empty crevices with a soil-stabilizing green carpet.

With their compact rosettes and bright flowers, *Lewisia* is a must-have plant for many gardeners. Most *Lewisia* do exceedingly well in a crevice garden, particularly *L. longipetala* 'Little Mango', 'Little Peach' and 'Little Plum' — all offered by Little Prince of Oregon Nursery, a wholesale nursery in Aurora, Oregon, specializing in ground covers, ornamental grasses, ferns, native plants and succulents.

Mark Leichty, director of business development at Little Prince, also suggested *Armeria maritima*, a compact, low-growing plant with grass-like foliage and small magenta flowers. He also recommended *A. maritima* 'Alba' for white blooms and 'Nifty Thrifty' for bright pink blooms.

Finally, the challenging *Castilleja miniata*, or Indian paintbrush, just might be the crevice garden plant mentioned with the greatest reverence. As difficult to find as it is to grow successfully, both Champoeg Nursery in Aurora, Oregon, and Sevenoaks Native Nursery in Albany, Oregon, grow limited quantities. ☺

Loree Bobl is a plant lover who writes about her garden and plant-related adventures on her blog, thedanger-garden.com. She is also a partner at plantlust.com. She can be reached at spikyplants@gmail.com.