

Cooperative Extension Service
Virginia Polytechnic Institute and
State University
Extension Division

ROCK GARDENS

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A rock garden may be a beautiful feature of your landscape. Many home grounds have steep banks, or areas of irregular terrain, which may be used for such a development. A garden of formal design using rocks may also be planned for a flat side yard area where a naturalistic planting would be out of place.

Location and Design

The most attractive rock gardens are those with a natural setting which blends with the surrounding countryside. You will not accomplish your objective with a pile of stones on level ground. A hillside with a rocky outcrop is ideal.

An informal design is most effective, and simplicity is very important. Unless the area is quite large, avoid the use of excessive numbers of plants or elaborate rock formations. The most desirable location is a steep bank which may be available at the back or side of your property.

A pool of water, or a miniature stream and waterfall, will add charm to your rock garden. Trees are desirable to provide partial shade, and shrubs should be used for background. If adequate space is available the garden may include paths made with flat stones or pine needles, and steps on steep slopes to encourage closer inspection and greater enjoyment.

Plan your rock garden for easy maintenance. Those which are most attractive are usually so wide you cannot reach to the center to remove undesirable weeds, prune plants, or set out new species. A sufficient number of large flat or rounded stones should be present to serve as a place to walk or stand while doing maintenance jobs in the garden. These must be deeply inbedded to provide secure footing as you work.

A rock garden should express the ability of the gardener to use creatively the terrain and plant materials which are available. Each garden should be a unique development, and not a reproduction of one which has been observed on other residential or public property.

Construction and Soil

The construction of a rock garden is easy if an irregular terrain is available. A rocky hillside may be used, or a series of ledges with small irregular terraces for plants. For the best effect, at least half of the surface should be made up of exposed rocks.

If more rocks are needed than are already present, use weathered native stones. Start at the base of the slope and work up from there. Place the rocks in a natural position with the strata in the same plane as existing material. Tip the stones toward the bank to cause water to run into the soil around the roots of your plants. The rocks should be large and firmly inbedded at least 50 percent or more in the soil.

Provide an adequate depth of good soil for your plants in the pockets between and behind the rocks. This should be done while the garden is being constructed. The soil should be well drained to a depth of at least 18 inches to promote desirable growth of plants. Most rock garden plants cannot tolerate poor drainage and wet feet.

Add compost or shredded peat moss to the soil to increase the organic matter content, and dried manure to improve the fertility. Do not use too much manure which would cause excessive vegetative growth of your plants. A mixture containing 2 parts loam soil, 1 part shredded peat moss and 1/2 part dried manure is suggested.

Plants for the Rock Garden

Except for trees which provide partial shade, and shrubs which serve as background or accent features, most of the plants in a rock garden should be relatively small or dwarf in size. Plants are used to complement the rocks, and must not hide, or detract from the beauty of the stones.

Plants for the rock garden should require a minimum of care. Select plants which will tolerate the conditions under which they must grow, such as a wet or dry soil, or an exposure which is windy, hot and sunny, or cool and shady.

Dwarf evergreen shrubs may be used to give a basic and permanent quality to the rock garden. Hardy native ferns, perennial flowering plants, miniature roses, and spring flowering bulbs add interest and color. Except for a few carefully selected accent plants or groups, the flowers should be somewhat inconspicuous and similar to those of wild areas the rock garden is intended to emulate. Avoid the use of large masses of plants, with gaudy blooms. Annual flowers should be used sparingly, especially such common species as petunias, or the large flowering varieties of aster, marigold, or zinnia.

Consult the catalogs of nurseries and seedsmen who offer dwarf shrubs, native plants, perennials, and bulbs. In some catalogs, the plants which are suitable for rock gardens will be listed in a separate section. The pictures and descriptions will help you select plants which are suitable for your particular garden. Addresses from which you can secure such catalogs can be secured from garden and horticulture magazines, or the garden section of your local paper.

Planting and Maintenance

Spring planting is preferred for most shrubs and perennial herbaceous plants. The best time is about one month before the average date of the last frost in your area. This allows the plants to become established in cool, damp weather, before the hot and dry conditions of summer reduce their vigor.

The use of young plants, divisions of clumps or roots, and bulbs or rhizomes, will give better results than planting seeds in the rock garden. Sturdy container grown, or balled and burlapped plants will recover more rapidly than bare-rooted specimens, and may be set at any time except during severe winter weather.

Fall is the best time for planting spring flowering bulbs. Many perennials and shrubs may also be set out at this season in areas having a relatively mild winter climate. The planting should be done a few weeks after the average date of the first frost in your area. This will allow new roots to develop before the ground freezes.

A random arrangement of plants is essential. They should not be located in neat rows. The best effect usually is secured by allowing individual plants to develop their typical form. This is particularly true of spreading types. Set trailing plants in locations where they can droop over stones.

In some cases it may be advisable to set three or more plants together to create a desired effect. Do not crowd your plants. Allow adequate space so their individual beauty can be appreciated, and not hide the rocks. Avoid placing small species too close to large ones which may overpower them.

Water plants liberally when they are set out, and as needed during the season to keep the soil moist. Apply a one inch mulch of pine needles, wood or bark chips, sawdust, or peat moss. This will conserve soil moisture, help control weeds, and provide winter protection. Small or crushed stones may also be used as an attractive and effective mulch around plants in a rock garden.

Rock garden plants need very little fertilizer if growing in a soil which has an adequate supply of organic matter. A very light feeding of not over 2 pounds of 5-10-5 fertilizer per 100 square feet may be applied in early spring before growth starts. Broadcast the fertilizer evenly over the entire area.

Rock gardens must be kept free of weeds. These undesirable plants give an unkempt and cluttered appearance to the garden, and use the nutrients and moisture needed by the preferred species. Pull weeds when they are small, before their removal would disturb the roots of other plants.

Prune shrubs in the rock garden to retain or develop the desired form and size. The best time for this operation is in early spring before growth starts, but light, corrective pruning may be done any time during the year. Pinch back the branches of herbaceous plants if a compact, bushy form is preferred. Remove faded flowers to encourage continued blooming.

Wall Gardens

Small rockery plants may add to the attractiveness of dry walls which are used to retain banks. Such walls should have a firm foundation, especially if more than 2 feet high. Retaining walls will be more stable if they slope back toward the bank. Each layer of stones should be firmly placed and tilted back to cause water and soil to move into the pockets between the rocks.

To promote satisfactory plant growth, there should be at least one foot of fertile topsoil behind the wall. Fill all pockets between stones with a soil mixture having a high organic matter content. A good mixture is 2 parts topsoil, 1 part shredded peat moss, and 1/2 part dried manure.

Use a minimum number of plants in the wall garden, located at irregular intervals. Allow adequate space for each plant to spread and develop its maximum beauty, and leave enough wall surface exposed to display its textural quality.

Plants may be set as the wall is being constructed or later. Extend the plant roots to their full length into the pocket between the stones, and fill around them with a fertile soil mixture.

Terraces, Paths and Steps

Small rock garden plants may be used in crevices between the stones of terraces, paths and steps. The low or trailing forms are usually best in such locations.

Plants should be used sparingly in terraces and paths, and should be located toward the sides and not in the main traveled areas. The principal purpose of paved areas is for utility, and the beauty of the structural rock features. These values may be enhanced and complemented by a limited amount of plant material.

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