Rocks for Sekijoju

Many people who live in cities have an inner yearning for the wilderness and the ancient places. They say a cat is the tiger in your living-room. The Japanese are a large population living in a chain of islands with not much space, so they always have to be economic with their use of space. This may be why they are so big on miniaturisation. Bonsai is one way you can own a patch of wilderness, not in your living-room, but in your garden. In the case of root-over-rock (sekijoju), you can own a chunk of the mountains too.

Imagine a craggy, gnarled rock, which over millions of years has seen it all. One day, a bird perches on the top of the rock and deposits a tree seed, which germinates and grows into a seedling, then a sapling. There is just enough soil on the top of the rock to support it. Over the years, the tree's roots reach down the natural fissures in the rock, which retain a little more moisture than usual, until finally they reach a flat area with enough soil to nourish the tree as a whole. The tree is buffeted this way and that by the prevailing winds and snowfall, and just manages to survive . . . Imagine all this in miniature, in a pot – that is sekijoju.

The three defining features of a rock suitable for a Bonsai root-over-rock planting are *size*, *shape* and *character*. Of these, size is the easiest to deal with. A Bonsai rock must be large enough to make a statement, but also small enough to fit in a pot. For practical purposes, this would make its largest dimension somewhere between ten and forty centimetres (four and sixteen inches). You could find a beautiful rock, but there would be no point in trying to put it in a Bonsai design if it needed a pot the size of a kitchen sink and four strong men to lift it.

Shape is much more complicated. It all depends on the design you are wishing to create. It's like the question of which pot to use for a particular tree, bearing in mind that the pot to the tree is like the frame to the picture: it should make a statement, but not such a loud or strong statement that it attracts the attention away from the tree.

There is a real difference between rock and pots however: you cannot obtain rocks to order. You have to wait until the right one comes along. With some trees, you can select the right trunk and then grow the right branches in the right places. You can order the right pot for a particular tree. With a rock, it is what you see is what you get. Rock is a far less tractable material than growing wood or clay. You can level the base so that the rock stands steady, but that's about it. The tree will be planted on the rock for ever, so it needs to be right enough.

Just as with a Bonsai tree itself, most rocks will have a 'front' and a 'back', and the way one decides which is which is the same way as one decides which is the front of a tree. The front face somehow invites the viewer in, while the back tends to shun you or shut you out. A few rocks are two-faced.

The character of the rock is its most subtle and variable feature. This is very much determined by its geology, and geology is a matter of location. In South Yorkshire,

we find gritstones, sandstones, limestones and shales, all of which (in my opinion) are unpromising for our purposes.

Geologists recognise three main types of rock, called *igneous, sedimentary* and *metamorphic*. The igneous rocks are cooled-down forms of the molten rock or *magma*, which constitutes the mantle. They can be more acidic or less, pale or dark, but their chief characteristic, which in my opinion makes them largely unsuitable as material for Bonsai purposes, is their uniformity of substance. I'll explain. One of the attractive features of wood as a material is that it has a natural grain. That is, it is made up of fibres and has a weaker bond in one dimension than in the other two. The igneous rocks are composed of crystals pointing in all directions, with no orientation and no grain. They are the plastics, not the woods, of the rock world. This means that when eroded and weathered, a piece of igneous rock will erode evenly on all sides and will end up more or less as a sphere. For Bonsai purposes, spheres are boring. Rocks with a grain, however, will be taller than they are wide and wider than they are thick, and erode into many interesting shapes, with natural clefts and fissures.

The second major group of rock is the sedimentaries, which are made up of deposited granules eroded and weathered out of other rock material, then consolidated and cemented. The sedimentary rocks tend to be laid down in layers, but these layers are often metres thick, which makes them far too big for any one rock of a size usable in Bonsai. Within each layer, the granules are usually quite uniform. Limestones are susceptible to the etching effect of water, especially acid rain, and sandstones can be eroded by the wind, especially by the sand-blasting effect of wind-driven grains. That is, they will erode and weather. The effects are to soften the sharp outlines, to soften the newness and dull the colour of recently broken rock, and to give an interesting texture and the patina of age. In rocks, we look for pretty much the same appearance as we seek in the trees we plant in pots: age, a gnarled texture and venerability, but in rocks, these qualities must be found; they can not be cultivated.

Where will we find grain, antique colour, softness of outline, the patina of age? For me, the answer lies in the third major group, the metamorphic rocks.

Metamorphism means change, and the metamorphic rocks are the results of certain changes having taken place in existing rocks. Under very high temperatures and pressure, some rocks undergo a re-alignment of their crystalline structure. Mudstones and shales under these intense processes are changed to become slates, which are very fissile (splittable). Slate is not a material of very much value for Bonsai purposes, except perhaps when a tree or a group of trees is placed on a single flat slab of rock.

Of more interest is the group of rocks known as schists. These also started life as fine-grained sediments, such as clays and shales. When subjected to more intense metamorphism than produced the slates, they recrystallised to form rocks with larger crystals and a coarser texture. These rocks show foliation, or a multi-leafed quality, the rocky equivalent of flaky pastry. More intense metamorphism produces gneisses, which show alternate bands of light and dark rock, with veins of quartz and a coarser texture than schists. These rocks can produce wonderful 'sandwich' effects of hard and soft banding, and thus natural grooves and notches.

In my opinion, the schists and gneisses represent some of the best rocks we can find for Bonsai purposes. They have a grain, and so come in pieces which are longer than they are wide and wider than they are thick – they never erode into globes. They

are too hard, so they weather nicely into softened shapes. They can be found in soft green, grey, orange and brown colours, which have a natural look. To my mind's eye, they come closest of all rocks to resembling the mountains painted in Chinese landscapes – misty and mysterious, brooding and subtle.

Where will we find rocks of the most attractive geology? Schists and gneisses are not found in the east of Britain. By and large, the Western parts of our islands were built up through more complex geological processes than the East, and complexity makes for interest. Next, where will these rocks be exposed and weathered and accessible? There is one type of locality where the rocks will be exposed, weathered and ready to pick up, which is on beaches. Searching for rocks on a beach involves a complex arithmetic, which goes like this: How attractive the shape of this rock is ÷ how hard it would be to get the base flat ÷ how far it is back to the car = shall I take it or leave it?

Remember that salt is not good for Bonsai trees. Rocks found on beaches can be quite infiltrated with salt, so it is a good idea to soak a beach rock in fresh water for a month or more, and then to leave it out in the rain, before planting on it.

South Yorkshire Bonsai Society

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