

Modelling Trees

By Brian Champion

In the last issue I left you with thoughts of Dimension and Scale. This time we are going to look at a few trees that are common to the English countryside. Concentrating on factors, such as Age, Height, Girth, colouring and calendar.

The English Oak

The English, or Pedunculate Oak is, by long tradition the National tree of England. Its history goes back at least 2000 years, during which time, its timber has been used for innumerable purposes. Probably more than any other tree.

The Oak is abundant on clay soils, but grows best on sandy loam. Fully grown it varies in height from 20 - 40 meters (60 - 120 feet) depending on situation: The tallest being drawn up to the light in forest areas, at the expense of spreading branches. Trees growing in an open situation, are of less height, and appear almost dwarfed in proportion to the tremendous bole, from 3 to as much as 12 meters in girth (10 - 36 feet). The heavy boughs stem from the trunk in all directions, zig-zagging to form a huge, dense crown.

The thick, rough bark is deeply fissured in a large network pattern. As the tree ages, the bark becomes dark grey, but, moist South facing areas will have a rich mossy green hue.

The leaves have the familiar gentle wavy outline. In early spring, the young leaves are a warm amber colour, which turn a rich and then rather sombre green as mid Summer arrives. The flowers appear in April or May, both sexes on the tree. The pale green, male, catkins are slender; the much less conspicuous, female flowers, of a like colour, have long stalks. Hence the later cups which hold the acorn have a stalk. Both cup and acorn are a bright, fresh, green at first, becoming brown by Autumn. In sheltered areas, the russet coloured Autumn leaves can stay on the tree all Winter, until the new Spring leaf growth pushes them off.

The sapwood is white, whilst the heartwood is a rich golden brown. Oak timber has great strength and durability, historically being used for furniture, ships and buildings. The bark is used for tanning.

Silver Birch

The Birch is first mentioned in about 50 AD and, is said, to have come from France. In Britain the Birch is the most widely distributed tree, growing in almost all soils. Despite its nickname by Coleridge as 'The Lady of the Woods', after its delicate fashion, it is tough and hardy.

The average height in Britain is 15 - 20 meters (45 - 60 feet) with a girth up to 1 meter (3 feet). It reaches maturity in 50 years and rarely lives longer than 80. The tough, waxy bark is purplish brown in young trees, but, as it ages, the smooth, papery, peeling bark of the upper part is silvery white, with black diamond or triangular markings, especially where smaller branches leave the larger. The base of the trunk becomes increasingly rough, often deeply fissured and blackened. It is common to see the main form splitting into 2 or 3 trunks from ground level.

Possible reasons for this is 2 or more seeds germinating closely together, growing to appear as one tree, or, the tender centre growing tip being eaten by rabbits, with the auxiliary growth between side shoots taking over, to form the multi-trunk effect as the tree grows.

The fine twigs are a very dark brown, sometimes appearing almost black. They bear alternate, small, brown, Winter buds. In early Spring, the buds expand, to show en masse a purplish bloom, before the leaf lets, first light, bright green, then emerald unfold. The leaves are about 25mm (1 inch) broad, roughly triangular and with serrated edges. In Autumn they fade to pale yellow. The male catkins are, at first, deep red, then, expand and yellow to droop like lamb's tails. The females are smaller pale green and are, at first, an erect shape, drooping as they enlarge. The flowers open just after the leaves and, by August/September, thousands of small winged seeds are released, to be dispersed by the wind. The Birch normally becomes seed bearing at 20 - 25 years and then seeds annually. The timber is tough, hard, clean and smooth; pale brown to cream in colour. Uses include turned goods, toys and paper pulp. The branches are used for brooms (Besoms) and horse jumps.

There are several species of Birch with similar habits that many people recognise as 'Silver Birch' and group together.

Scots Pine

The Scots Pine is the typical pine tree of N. Europe and is Britain's only native conifer grown for timber. Although found all over Britain now, all the Pine woods in the South are the result of planting, and, it is only in Scotland that it can be regarded as indigenous. In favourable conditions, the Scots Pine is a fine tree, growing up to 30 meters high and a 3 meter girth (100 feet and 10 feet). Despite its preference for a deep soil, it will grow and thrive on rocky ground or, shallow, sandy soil. It is often seen to flourish close to the sea.

The main trunk is straight and erect, the branches short and spreading. Those on the lower trunk die early, so, giving the gaunt, weather-beaten look so characteristic. Its growth is rapid, attaining half height in 20 years. The bark at the base is fissured, forming irregular, vertical plates which are a reddish grey/brown. The shining orange/red bark of the upper tree is a distinct and warming feature. When young, the tree is conical and well furnished with whorls of branches. When mature, it is sparsely branched, with a flat or slightly domed crown.

The stiff blue/green needles are 25-50mm long (1 inch-2 inches), and grow in pairs, staying on the tree for two years. Both male and female flowers are borne on the same tree. The male flowers are small, combined in spikes, the yellow pollen makes them conspicuous. The female cones are 50-70mm long (2-3 inches), egg shaped, tapering and curved, usually in clusters of 2 or 3.

The timber is resinous, with reddish heartwood and pale brown sapwood. Its many uses include; telegraph poles, pit props, fencing, paper pulp and, of course the famous `2x4 Deal'. In addition to the timber, other valuable products are obtained; pitch, tar, resin and turpentine. Another `natural by-product', when growing on sandy soil, is the humus, formed by fallen needles, which enrich the soil fertility to the benefit of other plants.

Well, that's 3 trees in fair detail. There is no substitute for personal observation and records, photographs etc., but there are a myriad of books published on trees, that give the trunk/branch outline in Winter and in leaf, with coloured illustrations of the bark and leaf forms. I also keep a reference file of calendar pictures etc., which are also useful.

*This Article first appeared in the Winter 1994 issue of the DOGA Journal.
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