

The Cambridge Tree Tour

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To begin the tour you should be standing at the entrance to Drummer Street Bus Station, looking out.

If you look straight ahead along Emmanuel Road you will see our first tree, a broad, spreading **Oriental Plane (1)** which, erm, is unfortunately behind the wall of Emmanuel College. However, it has deigned to shade the pavement with some of its branches, so you may wish to cross the street to have a look at the leaves (more deeply lobed than those of the much commoner London Plane which we will see later) and fruit (smaller than those of London Plane).

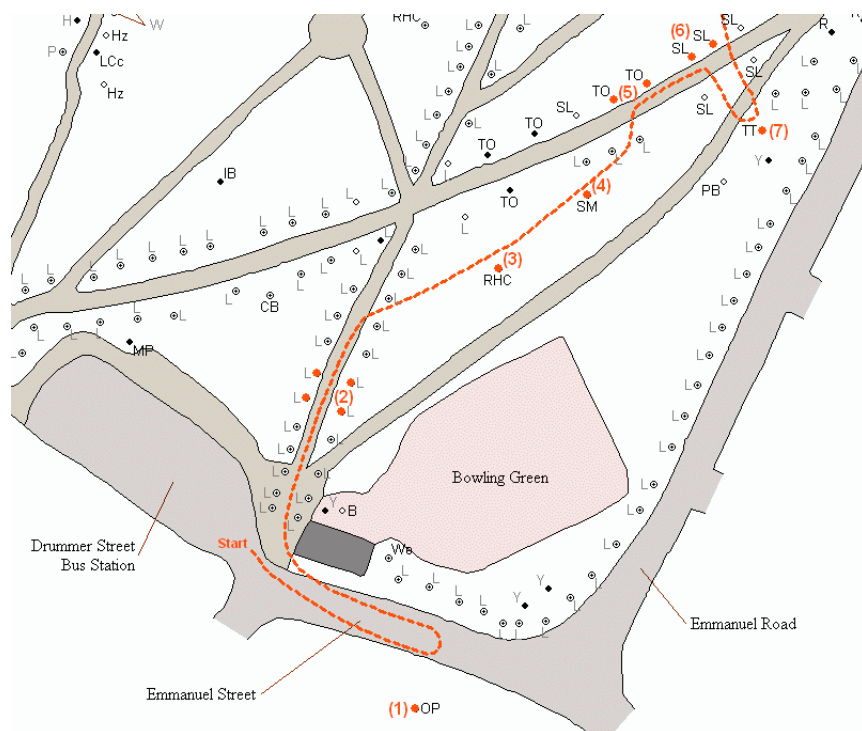
Back at the start, turn left onto Christ's Pieces down the avenue of tall trees. Christ's Pieces has an excellent variety of trees, but by far the most frequent are those of **Common Lime (2)**, mature examples of which form this avenue across the Pieces, much of the avenue which crosses diagonally ahead from your left, and also the eastern border with Emmanuel Road. The mature tree is immediately recognisable by its tall, narrow and rather top-heavy shape. The alternate leaves have a characteristic shape and are, surprise, surprise, a distinctive lime-green colour, at least early in the season. Limes are most easily recognized, however, by their fruit with the distinctive single leaf-like bract above them.

Veer right from the avenue onto the grass before you reach the first path junction. The large tree in front of you is a **Red Horse Chestnut (3)**, a frequent tree but less common than the ordinary Horse Chestnut. The Red Horse Chestnut has red 'candles' in late spring. The leaves are opposite (i.e. are attached in pairs opposite one another along the shoot) and the leaflets are palmate (like the fingers of the hand) - horse chestnuts and their relatives are the only palmate-leaved trees you are likely to come across in the UK. In contrast to the ordinary Horse Chestnut the distinctive large buds are not sticky.



Behind this tree is another large solo tree. This is a **Silver Maple (4)**. Maples (and the related Sycamore) have leaves with veins which radiate from the point at which the stalk is attached, like those of planes and some other species. However, maples are the only such group with opposite leaves. Silver Maple has deeply-lobed leaves which are whitish below, giving the foliage a light, feathery appearance. They are commonly planted in parks and open spaces.

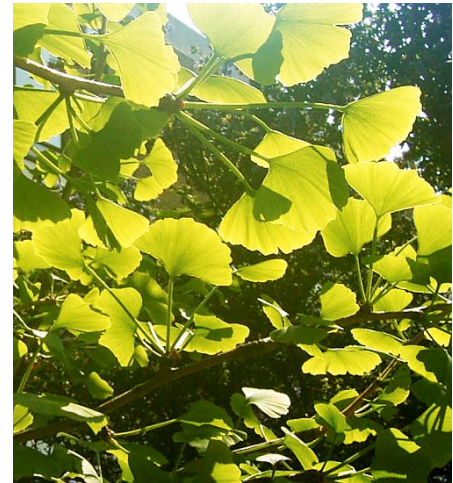
Head left past the last of the three large limes onto the path (we are heading slowly for the far right-hand corner of the Pieces beside Wesley Chapel). The two medium-sized trees bordering the opposite side of the path are **Turkey Oak (5)**. The leaves have the lobing typical of an oak but are more pointed than those of the English Oak (which does not grow that well in Cambridge as it prefers a less chalky soil). Turkey Oak is quite popular for parks as it is partially evergreen. Unlike English Oak, the acorns have spiky 'mossy' cups and the buds have long twisted whiskers.



Continuing along the path the small trees on either side before the path junction are **Small-leaved Lime (6)**. Although the Common Lime is indeed the commonest lime around, there are at least seven species of lime grown in Cambridge, all with fairly similar leaves and fruit. Common Lime has an extremely variable leaf size, and Small-leaved Lime, although it tends to have smaller leaves, is best distinguished by its flowers and (small) fruit which alone among the limes are held stiffly rather than hanging. Its leaves are neat and tend to curl upwards at the edges.

To your right, beyond the far side of the path which is about to merge with this one, there is a small tree with very strangely-shaped leaves with square ends. This is a **Tulip Tree (7)**, so named for the large orange tulip-like flowers borne in spring (at least on larger trees), and is a tree that is increasingly being planted in parks. It grows quite fast to give an impressively tall, open tree.

Turn back to the path and head left across the grass to the two spiky trees behind the floral display by a path junction. These also have very oddly-shaped leaves. They are **Ginkgo (8)**, a tree not known in the wild, but only from Chinese temple gardens. Long grown in the UK, it seems increasingly popular, not least in Cambridge streets (and hopefully not just because it happens to be highly pollution-tolerant!)

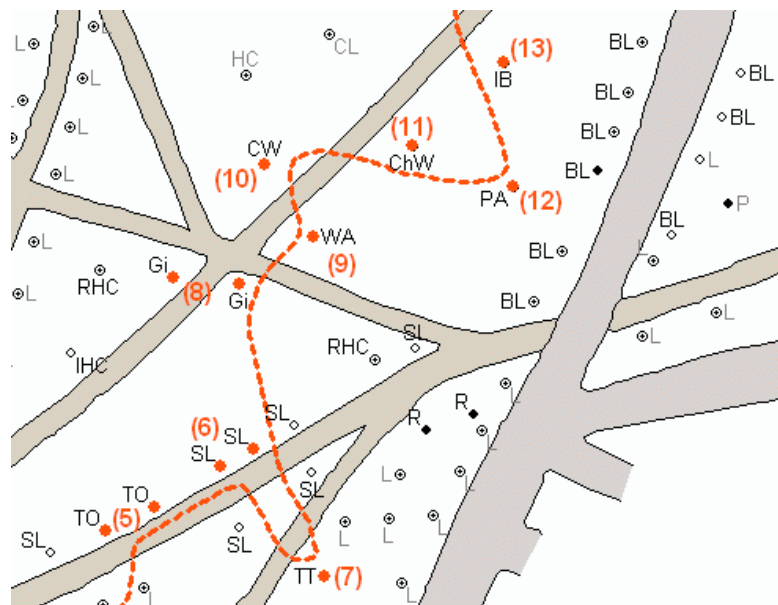


Across the path junction and to your right is a **Weeping Ash (9)** with long hanging branches but recognisable as an ash by the diagnostic black felted buds. Most weeping forms are the result of (deleterious) mutations in normally upright forms (branches are designed to be stiff to reach up for the available light!) All specimens of Weeping Ash (virtually every churchyard and cemetery seems to have one) are descended from a single tree found growing thus in Victorian times in Gamlingay Churchyard, about 15 miles south-west of Cambridge.

To its left is a **Caucasian Wingnut (10)** with long hanging streamers of yellow-green winged fruit. This is a very vigorous tree which is also being increasingly widely planted. Note that the leaves are pinnate (that is, with leaflets arranged along a central stalk) and the leaflets serrated, as with (Weeping) Ash. However ash leaves are arranged opposite one another on the shoot whereas those of wingnuts are alternate. The opposite/alternate distinction is the first feature you should check for when identifying a broadleaf tree. Opposite-leaved species are relatively less common and therefore easier to identify! [Note that even if the tree has no leaves you can still determine whether it is opposite or alternate by looking at the arrangement of buds or small branches, as these derive from, and hence mirror, the leaf arrangement.

To your right across the path is my favourite tree in Cambridge, a very fine mature specimen of a very uncommon tree, another wingnut, this time the **Chinese Wingnut (11)**. The leaves differ from those of the Caucasian Wingnut by the unusual leafy flanges running down either side of the leaf stalk. The wings on the fruit are also narrower (more like those of a mechanical wingnut!)

Behind the Chinese Wingnut and a little to the right is a mature specimen of a much more common but rarely noticed tree, the **Pillar Apple (12)**. This species is one of the few species which are naturally fastigate, that is, strongly vertically-branching. Fastigate trees tend to be of two types: those which branch repeatedly from a weak central leader and therefore stay narrow (for example the highly distinctive



Lombardy Poplar used in the countryside as a windbreak), and those which branch repeatedly from a single point. The Pillar Apple is an example of the latter category, and as can be seen, the limited amount of space for branching means that the initially narrow tree soon develops middle-age spread as subsequent branches are forced ever further away from the vertical. Younger specimens are common as street trees and have distinctive 2-3cm yellowish-purple apples in autumn.

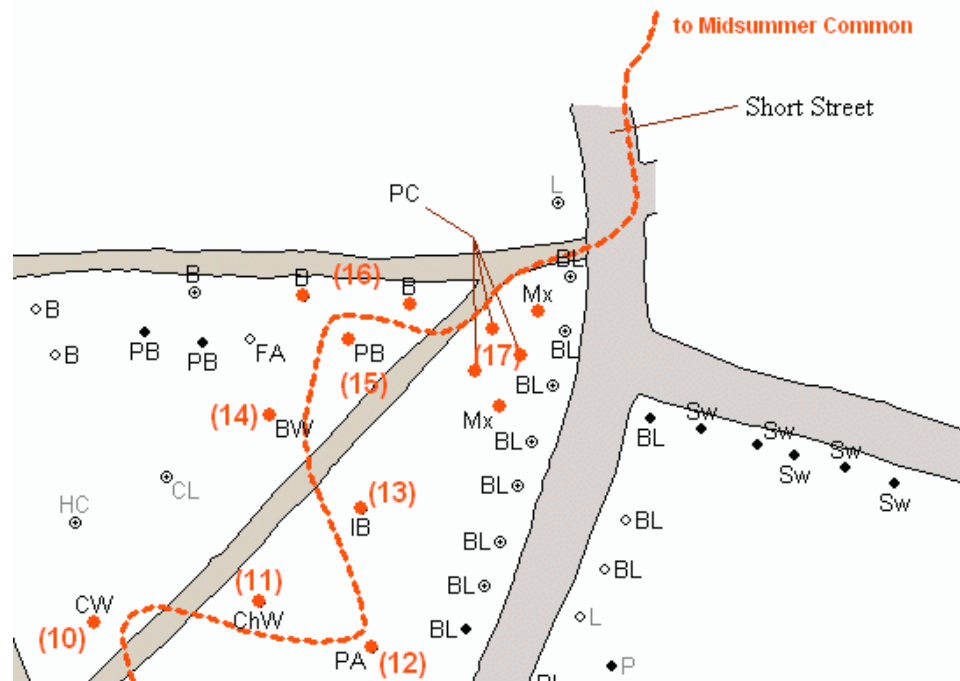
To the left of the Pillar Apple and behind the Chinese Wingnut is a tree with very large opposite leaves (or no leaves at all until mid-June; it is usually the last tree in leaf). This is the **Indian Bean Tree (13)**, long grown in the UK, but becoming more popular as a result of the warmer summers of recent years which the tree really needs to flourish. The tree has loose candles of white flowers in early summer and long black cylindrical seed pods which persist over winter. Nothing else has leaves so large, except the much less common woolly-leaved Foxglove Tree.



Just across the path from the Indian Bean is a small tree with alternate pinnate leaves with serrated leaflets. This is a **Black Walnut (14)**, easily distinguished from the Common Walnut which we will meet later, but a rather confusing tree unless walnuts are visible. The most distinctive feature is that the leaves typically lack a terminal leaflet (i.e. have even numbers of leaflets). This is still an uncommon tree. The nuts are edible but apparently the shell is extremely hard to break into.

Three more trees to look at briefly before we leave Christ's Pieces. The tree beyond the Black Walnut as you head towards the road is obviously a birch from the distinctive bark. However if you compare both the bark and the leaves with those of the two birches behind you will see they are different species. The first tree is a **Paper-bark Birch (15)**, widely planted in parks, with bark that comes off in paper-like strips and larger leaves than those of the common native birches. Behind it are indeed two specimens of **Silver Birch (16)**. Birches tend to be difficult to identify reliably: Silver Birch is quite variable, usually with pendulous twigs, double-toothed leaves (i.e. each large tooth is itself toothed) and vertical black 'diamonds' at the base of the trunk, but some or all of these features may be missing, particularly in hybrids with the rather similar, and also native, Downy Birch.

Finally, as we exit Christ's Pieces at the corner, there are five small trees on the right, three with, at least early in the season, rather reddish leaves. They are all crabs of some kind (i.e. related to apples), and grown primarily for their spring blossom and/or autumn fruit. They mostly have unhelpfully similar and undistinguished small oval alternate leaves, and occur in a wide range of cultivated varieties and hybrids. The reddish ones in front are a cultivar of **Purple Crab (17)**, briefly spectacular when they flower in mid-spring; the others I have yet to conclusively identify!



Walk left down Short Street to the roundabout and cross to the right of it over Maid's Causeway to reach Midsummer Common. Turn right along the pavement - we will enter the common at the cycleway ahead. On your left are two purple-leaved trees (dark green in late summer) which are forms of **Norway Maple (18)**. Note the opposite leaves with radiating veins characteristic of maples. Norway Maple has similar-sized leaves to Sycamore, but the lobes have marked whiskers (extended narrow tips). As a general rule a purple-leaved tree will either be Copper Beech (usually a large tree with medium-sized oval leaves), Norway Maple, Pissard's Plum (a small tree with small roundish leaves and reddish plums) or Purple Crab (scruffier and sparser leaves soon becoming somewhat greenish).

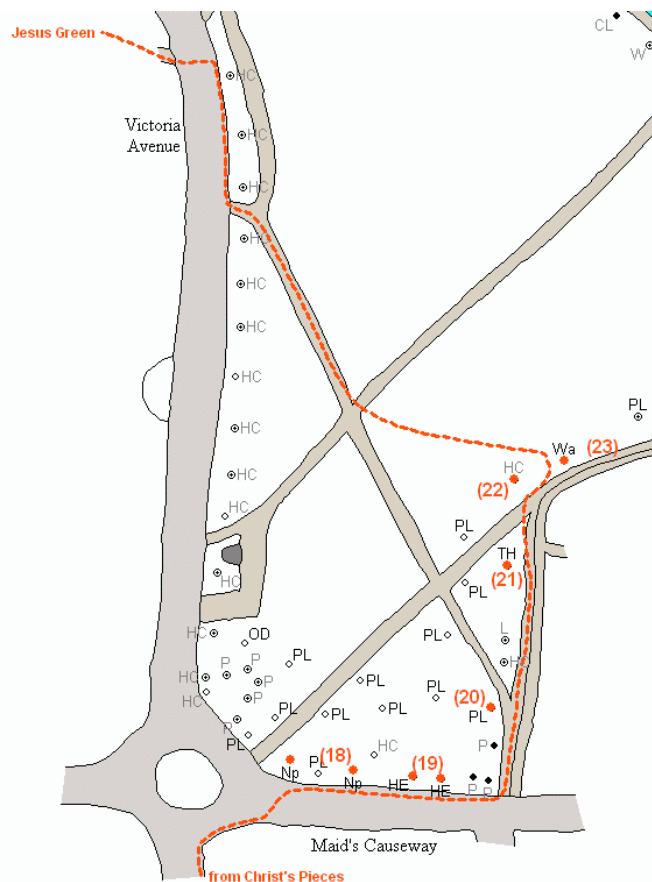


The next two large trees are fine specimens of **Huntingdon Elm (19)**, a hybrid elm that is reasonably resistant to Dutch Elm Disease, and which is quite common in Cambridge as a planted tree. Note the asymmetric leaf base, highly characteristic of elms. [N.B. the native elm species, Wych Elm and English Elm, and their intermediate hybrid forms are still very widespread in the UK in hedgerows and as small trees. However they usually die back as soon as the trunk reaches about 10cm in diameter and becomes susceptible to attack by the beetle which carries Dutch Elm Disease].

Turning into the cycleway onto Midsummer Common, the fine mature tree (the first large tree in from the gate) is a **Silver Pendent Lime (20)**. Silver Lime has a white-felted underleaf which is most apparent when the wind blows, and which makes them much less susceptible to the aphids which attack Common Lime. The pendent form weeps somewhat and has hanging leaves with very long leaf stalks. Silver Lime flowers later than other limes, with overpoweringly strongly-scented flowers and nectar that is apparently toxic to bees.

Ignoring the cycle path, follow the path parallel to the houses past a horse chestnut (there is a better one ahead) and a lime. The next tree is a **Tree of Heaven (21)**. This is an introduced tree which in places has become an aggressive weed species. The pinnate leaves are alternate and have a characteristic blunt tooth or two at the base of most leaflets. The tree has a distinctive smooth bark with snake-like patterns running up and down, similar to that of the (usually much smaller) snakebark maples. Given the space, this can be a spectacular tall tree with a fine open branch structure - check out another example in All Souls Churchyard opposite Trinity College to see why it is not suitable for the small, or even medium-sized garden!

Beyond the Tree of Heaven is a nice, medium-sized, solo **Horse Chestnut (22)** (to your left along Victoria Avenue is an avenue mostly comprised of mature Horse Chestnuts). The palmate leaves have flatter leaflets than those of the Red Horse Chestnut we saw earlier, and the buds are sticky. The flower candles look white at a distance but are highly-coloured when seen close to.



And finally, before we cross the treeless prairie to reach Victoria Avenue, the tree just round the corner is a **Common Walnut (23)**. Although the leaves are alternate and pinnate they are otherwise unlike those of the Black Walnut we saw earlier. The leaflets are untoothed, and most distinctively, the terminal leaflet is much larger than the others. This tree is more common as a garden tree, planted particularly for its nuts which ripen in late autumn.

Turn left either across the grass or back round by the cycleway to Victoria Avenue and cross at the first pelican crossing. Walk up the path onto Jesus Green between the **London Plane (24)** trees which form the finest avenue of trees in Cambridge. London Planes are most easily recognised by their bark which is distinctively patterned by the shed patches, although not all trees show this. The leaves are large and leathery, with radiating veins like those of maples, but alternate. London Plane is believed to be a hybrid of Oriental Plane (the first tree on the tour) and an American species, and has a wide number of forms intermediate between the two parents. Most of the plane trees in Cambridge have broad shallowly-lobed leaves with few teeth like these, but many of the London Planes in London have quite different leaves.

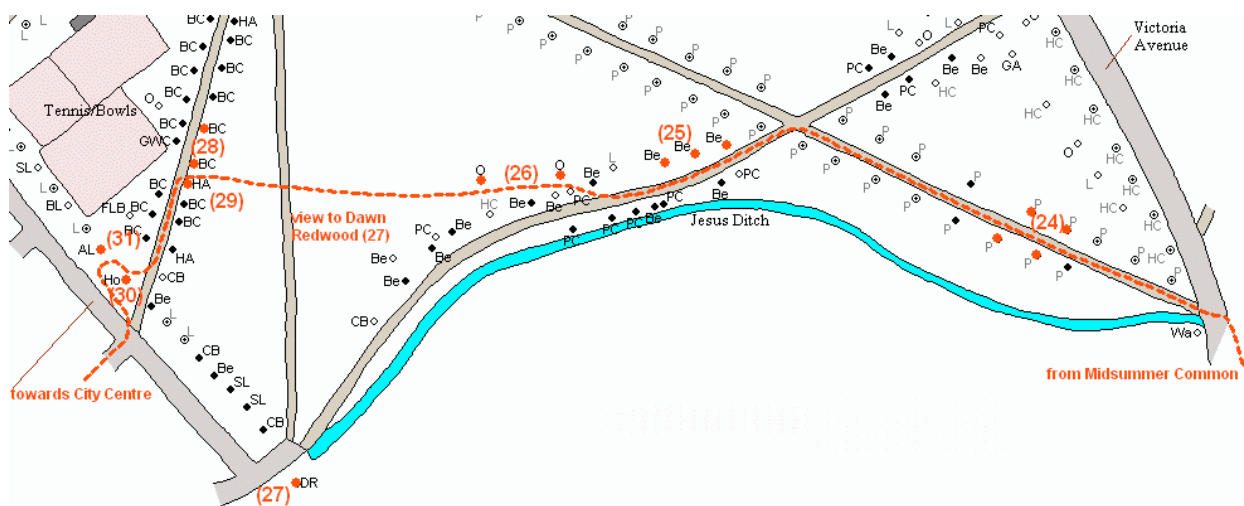
Turn left at the path junction away from the plane avenue and alongside Jesus Ditch. Most of the trees on your left (on this side of the ditch) are Purple Crabs. The remainder plus many on the right, including the first three, are **Common Beech (25)**. This is a very common native tree, and is also commonly planted in parks as it tends to retain its dead leaves in winter, making the place look a little less desolate than it would otherwise. Beech leaves are alternate and rather oval in shape. The leaf edge is untoothed but with distinctive fine hairs, distinguishing it from Hornbeam, an otherwise similar and equally common tree which we will meet very shortly.

About halfway along the path, on the right and set back behind the beeches, etc are two small **English Oak (26)** trees, the common oak of lowland Britain. The leaves have rounded lobes and more or less lack stalks (whereas the acorns are stalked). At the base of the leaves are two distinctive 'auricles', extensions of the leaf behind the point of attachment to the stalk.

From the oaks trees head off across the grass towards the tennis courts. When you reach the first treeless path, look left along the path. The tall tree inside Jesus College grounds and just to the left of the houses at the end of the path is a **Dawn Redwood (27)**, the so-called 'fossil tree' rediscovered in China in the 1940s; they are very *de rigueur* in Cambridge. The original UK tree is in the Cambridge Botanic Gardens and there are several fine examples (visible free of charge) in the grounds of Cherry Hinton Hall.

Continue to the tree-lined path. The majority of the trees lining the path are **Bird Cherry (28)**. Unlike most cherries which have bark with distinctive horizontal lenticel bands, the Bird Cherry has smooth dark bark. In addition the flowers are much smaller but born on long tails (particularly long on these trees which are of the 'Watereri' cultivar). The leaves are fairly typical for a cherry, quite large, oval and (in this case finely-)toothed. These cherries appear to have been planted to fill the gaps in an ailing avenue of hawthorns, of which just three now remain. There is one more or less where you meet the path, on the opposite side of the path to the tennis courts. These are actually red-flowered cultivars of the **Midland Hawthorn (29)**.

Turn left along the path towards the houses. The last tree on your right as you reach the road is a **Common Hornbeam (30)**. The leaves have deeply-impressed parallel veins rather like those of beech (the tree to the left of the path is a beech), but the leaves have coarsely serrated edges. Hanging clusters of winged seeds, like three-dimensional ash keys, are usually also present. Hornbeam is a native tree, very commonly planted in woodland, and common, usually in its (spreading) fastigiata form, as a street tree.



Before we head up Portugal Street opposite, make a brief detour to the tree behind the Hornbeam. This is our fourth lime species so far, an **American Lime (31)**, really rather similar to the Common Lime, but with larger leaves with obliquely-slashed bases and larger fruit.

Head along Portugal Street and on into the pedestrianized Portugal Place. The small triangular enclosed garden on your left contains a lovely old **Common Pear (32)**, recognisable by the distinctive square-cracked bark, and more easily in season, by the developing pears, which are rounder and smaller than the more familiar edible pears of cultivated forms.

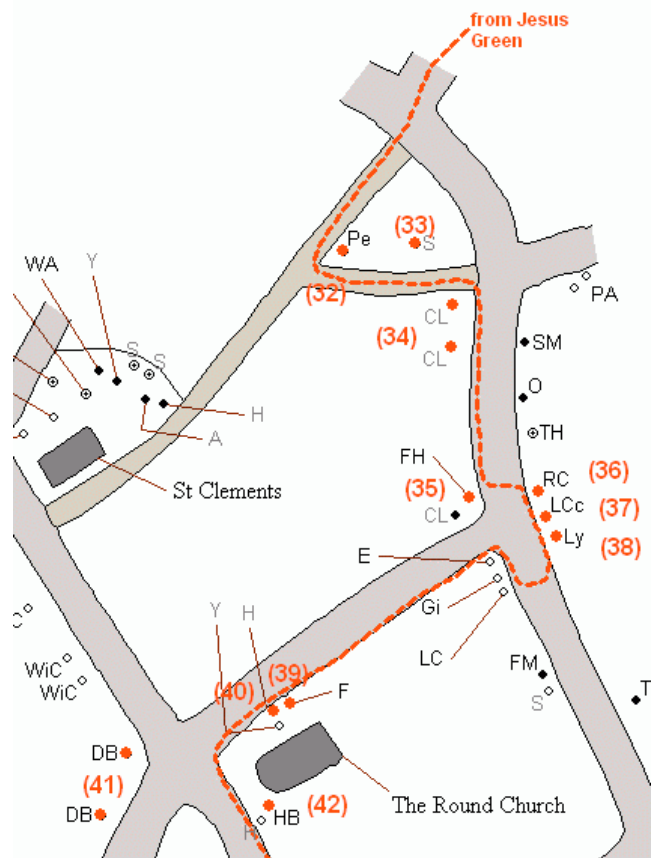
Turn sharp left down the side of this garden, pausing as briefly as possible by the **Sycamore (33)** (note that its leaves are more rounded than those of Norway Maple) - a typical example of a usually scruffy tree, although there is a very fine mature tree in front of St Luke's Church in Victoria Road, the exception that proves the rule perhaps!

Turn right at the end of the passageway past the multi-storey car park, noting the two Pillar Apples off to your left in front of the terrace of houses in Lower Park Street. The first two trees on your right belong to the fifth and final lime species of the tour - **Crimean Lime (34)**. This has darker and glossier leaves than Common Lime and therefore does not attract the aphid honeydew and sooty mould problems suffered by the latter, but it is an ugly tree in winter, all misshapen haphazard branches, often descending in a tangle to the ground. The tree on the corner of Round Church Street (next to another Crimean Lime) is the '**Fastigiata**' (35) cultivar of Common Hornbeam, which we saw earlier. It is an ideal tree for street corners as it does not spread too widely and grows to a highly predictable shape. On the other side of the road you have just passed a Silver Maple, an English Oak and a Tree of Heaven, all of which we have already seen.

Cross over the road now to the three conifers just beyond them. Conifers tend to struggle on the chalky soils and dry (honest!) climate of Cambridge, although there are some quite decent trees west of Cambridge on the greensand towards Girton and Histon. These three trees are representatives of the three most widely-planted cypress family species, neatly laid out in a row for comparison. The first tree with rather shiny, fairly broad-threaded foliage is a **Western Red Cedar (36)** or Thuja. It has vase-shaped cones and on sunny days it has a rather sickly orange smell. The second tree is a **Lawson Cypress cultivar (37)** with parsley-scented foliage and small round cones. This cultivar is a golden form with stiffer foliage sprays than the type tree. And the third tree is that scourge of good-neighbourliness, a **Leylandii (38)**, a strange hybrid tree which grows very fast, rarely bothers to produce cones, and has foliage which neither forms flat sprays (like the other two), nor is truly arranged three-dimensionally like the so-called 'true' cypresses.

Turn back across the road (passing another Lawson's Cypress and a Ginkgo) and walk up Round Church Street. In the corner of Round Church Churchyard on your left the tree with large lobed leaves is a **Fig (39)**. This is an increasingly popular tree, particularly with warmer summers which mean the figs might actually get to ripen! Next to it is a **Common Holly (40)** which needs no introduction. Across from Round Church Street are two large fastigate (vertically-branching) beech trees, a type known as **Dawyck Beech (41)** and derived from a single tree found growing like that somewhere in Scotland in late Victorian times. A great tree for making the most of a limited (horizontal) space!

Turn left down Bridge Street with the Round Church on your left. The birch tree in the churchyard is a **Himalayan Birch (42)** planted



for its very white bark. It is very similar to the Paper-bark Birch we saw earlier, but neater and with shinier leaves, and usually with a distinctively fluted trunk.

Continue down Bridge Street and its continuation as Sidney Street (there are some large specimens of Common Beech and its purple form Copper Beech behind the wall of Sidney Sussex College on your left). Turn left at Sussex Place past two Paper-bark Birch trees and turn right into Hobson Street. One last tree before we return to the bus station; towards the end of Hobson Street on the left behind the gate leading to Christ's College Master's Lodge is a very fine **Hybrid Wingnut (43)**. This is the hybrid of Caucasian and Chinese Wingnut, both of which we saw earlier on Christ's Pieces. If you can reach any, you will see the fruit is intermediate between the two species, as are the leaves, with the leaf-flanges of Chinese Wingnut contributing an unusual grooving to the leaf-stalk. A superb tree, pity it is inaccessible!



Time to return to the bus station (if you wish to catch a bus that is, or to complete the round!), passing a Ginkgo in front of Lloyds Bank, a fine Weeping Ash in St Andrews the Great Churchyard, and a rather forlorn, probably fastigate, Norway Maple on the pavement in front of the church, and then back either through what used to be Bradwell's Court, or along to the road junction and left along Emmanuel Street.

