

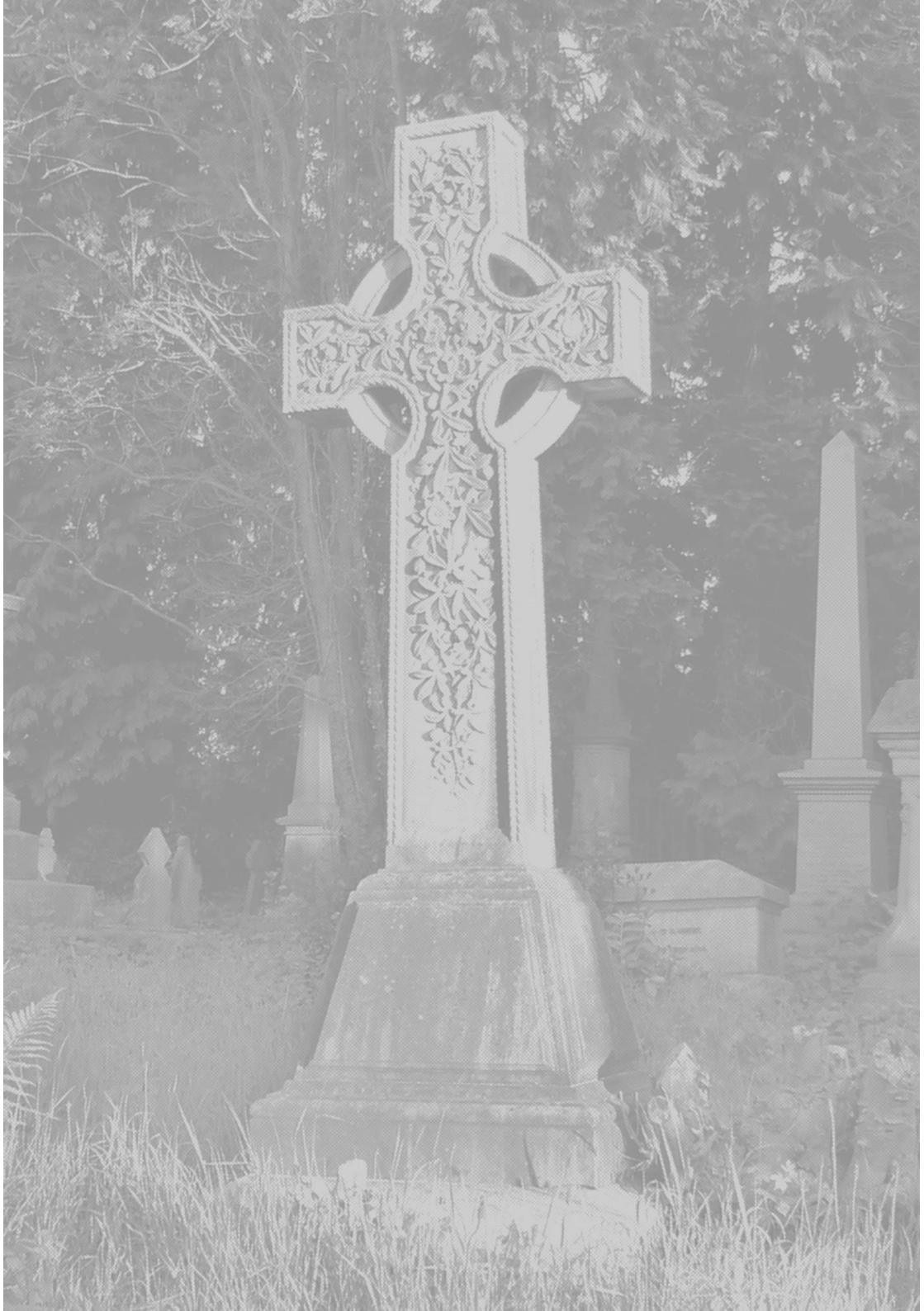
# **Tree Tale Trail**

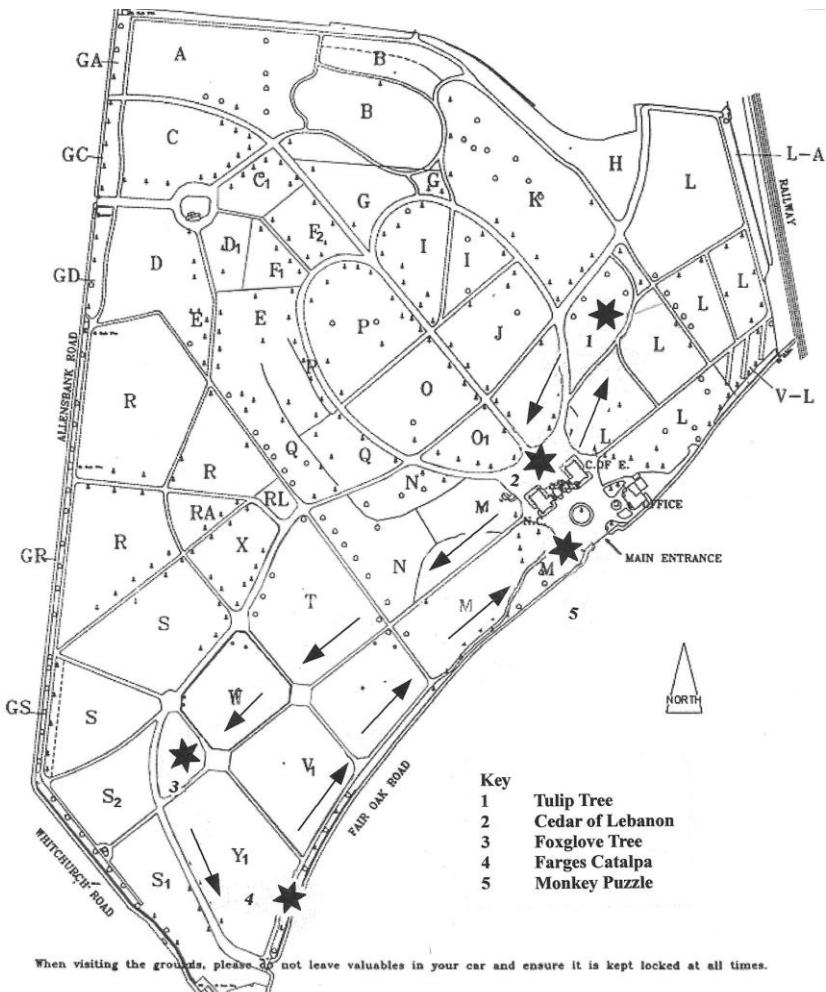
**A closer look at five of the Cemetery's  
many special trees**

**by Gordon Hindess**



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## Chinese Tulip Tree (*Liriodendron Chinense*)

The Chinese tulip tree is a native of central and southern China. It is similar to the American species, *liriodendron tulipifera*, but differs in having slightly larger and more deeply lobed leaves, and shorter inner petals in the flowers, which lack the orange pigment of its American cousin, which is the variety more commonly found in the UK (for example in Dyffryn Gardens). The Chinese tulip tree can reach a height of about 40 metres: this one is around half of that - but it still makes it one of the tallest trees we have. While it can have a lot of blossom, this is hidden within the leaves, with which it blends in quite well. You need to get close to it to appreciate the beautiful golden yellow flowers that appear in the early summer.



*Tulip tree blossom*

The Chinese tulip tree was introduced by the famous plantsman, Ernest Wilson, as far back 1901, but probably favoured as much for its foliage as its blossom. Its leaves are strikingly larger than those of its American cousin and emerge in the spring with a deep burgundy colour that soon lightens, in direct sun, to a powder-burgundy blush, which can glow anything from pink-grapefruit to orange when back-lit.

But they soon mature to lime green. Because neighbouring leaves on the same stem may well be either younger or older, they will be at different phases in the colouring sequence. The effect is enhanced by the contrast with the leaf's bud-scales—the protective sheath from which the leaf emerges—which remain yellow-

*Tulip tree in autumn*



green. After rain, water beading on the leaves can produce a magical "lotus effect". This beading is thought to facilitate leaf hygiene: dirt and pollen become dissolved in the passing beads of water, which then dispose of the mess by rolling cleanly off the leaf.

Strangely, the fruit which develops from the flower is very similar to a larch fir cone ... and enjoyed with equal relish by the squirrels in the Cemetery.

## Cedar of Lebanon (*Cedrus Libani*)

The Cedar of Lebanon is a native of the mountains of the eastern Mediterranean region, in areas ranging from eastern Turkey to western Jordan but centring on Lebanon a country that features the tree on its national flag). An evergreen coniferous tree, it can grow up to 40 m tall, with a trunk up to 2.5 m in diameter so, potentially, our specimen has a long way to go! We don't know exactly how old ours is, but a 1905 archive image shows a very small tree in the centre of the circular plot which could well be it.



*Cedar of Lebanon behind the chapels*

When young, the crown of the tree is conic but, with age, it becomes broadly tabular, with more horizontal branches. It is this mature, aesthetically pleasing shape, particularly where the tree is not crowded, which found favour as an ornamental feature in parks. But it is also worth taking a closer look.

There are two distinct types of shoot, long ones and short ones. The needle-like leaves are spaced out on the long shoots, but clustered on the short ones; they can be anything up to 3 cm in length and are square sectioned, in varying shades from green to dull turquoise, with bands of pores on all sides. Typically, 8-12 cm long seed cones are produced every second year, maturing 12 months after pollination, in late autumn. As they develop, while still green, the cones are distinctly sticky.

Lebanese cedar wood was popular for ancient woodworking because it is easily worked and shaped, and seasons with minimal shrinkage or distortion: its resistance to decay in salt water led to it being much used in ship construction. There are several biblical references to its use: Phoenician king Hiram of Tyre sent Lebanese cedar, carpenters and masons to Jerusalem to build a palace for King David: he also provided cedars and artisans to King Solomon for the construction of his own palace as well as the Temple in Jerusalem: the valuable wood had to be imported into ancient Israel and the Book of Ezra reports that Lebanese cedar timbers were hauled to the Phoenician coast and then carried by sea to Jaffa for transport to Jerusalem: Hebrew priests were ordered by Moses to use the bark in the treatment of leprosy: the prophet Isaiah used the Lebanon cedar as a metaphor for the pride of the world.

Perhaps unsurprisingly, over the centuries, extensive deforestation occurred, so only small remnants of the original forests survive. Deforestation has been particularly severe in its titular home, Lebanon, where only smaller trees up to 25 m tall survive, though Pliny the Elder tells us of 40 m cedars

there. Various attempts at conserving the cedars have been made, the first by the Roman emperor Hadrian, who created an imperial forest and ordered it marked by inscribed boundary stones, two of which are in the museum of the American University of Beirut. In recent times, more successful reforestation of the cedar has been carried out in the Mediterranean region, particularly Turkey, where over 50 million young cedars are being planted annually. The Lebanese populations are also expanding through a combination of replanting and supported natural regeneration.

## Foxglove Tree (Paulownia Tomentosa)

The foxglove tree can look particularly stunning in late April and early May, when its fragrant blossom appears just before the leaves, so the colour is not diluted by green.



*Foxglove tree in blossom*

In China, where it is known as an Empress tree, an old custom is to plant it when a baby girl is born. The fast-growing tree matures when she does and, when she is eligible for marriage, the tree is cut down and carved into wooden articles for her dowry. Several Asian string instruments are made from the wood, including the Japanese koto and Korean gayageum zithers. Every autumn, a single foxglove tree can produce as many as 20 million seeds. They grow in large clusters of

woody pods about 1.5 inches long, with each pod containing four compartments and up to 2,000 tiny winged seeds. The soft, lightweight seeds were commonly used as a packing material by Chinese porcelain exporters in the 19th century. But packing cases would often leak or burst open in transit and scatter the seeds along rail tracks, causing it to become an invasive nuisance. Fortunately, our climate militates against a similar problem here.



*Seeds and seed pod*

The Foxglove Tree can be coppiced annually, which will stop it flowering but, instead, it will then produce very vigorous growth with leaves up to 1 metre wide. The wood is lightweight commensurate with a fast-growing tree, which can be harvested in as little as five years. In its native habitat the growth in its younger years is so rapid that tree growth rings are up to 8mm wide. But in the UK, where

temperature is lower and winters harder, growth will be slower. Indeed, if the temperature drops below 5C for too long no flowers will develop in Spring. It could be more than five years before new trees become established and are able to compete with other plants but, otherwise, they are tolerant of pollution and not fussy about soil type. Normally, trees will flower in 8-10 years.

But the mature tree here is frail, leaning on a headstone, with an ominous bulge in the soil on the opposite side of the trunk. Should its inevitable demise in the next few years just be accepted or should steps be taken to replace it?

Coincidentally, a chance remark that the tree was too difficult to grow from seed in this country had prompted a member of the Friends to rise to the challenge. In 2011, a seed pod was collected and the following Spring, some of the seeds were sown. Many seeds germinated but, by the end of the growing season, there were only two tiny seedlings



surviving in pots.. At the end of the following year only one was left and, in the dormant season, this was planted out in the garden, with minimal hope of success. The pessimism proved unfounded: the tree thrived, with leaves up to half a metre across and rapid growth . After two more growing seasons, it

Foxglove tree in third year of growth was  $2\frac{1}{2}$  metres tall and

would have outgrown its garden home, if left for another season.

The happy solution to two problems was adopted and the new tree was transplanted in the Cemetery. It can be seen about 15 metres west of its mother. With the trauma of the move and the need to re-establish a healthy root system, its growth did not match that of the previous two years and the leaves looked a bit sickly. But it provided one surprise, producing a handful of flower buds in readiness for next year. This was perhaps three years earlier than would normally be expected and may have been nature's response to feeling endangered, as a consequence of the move. This story is being told just one year later, in 2017, so you can see for yourself how the replacement tree is faring.

There is a postscript to this tale – the tree has an alternative name of Phoenix Tree, because of its propensity to regenerate from root-stock. Part of the root of the transplanted tree must have been left in the garden, because, one year on, there is a new tree, about half a metre high!

## Farges Catalpa (*Catalpa Fargesii*)

There are approximately 40 to 50 species of catalpa, frequently referred to as Indian Bean trees because the most prevalent species worldwide is the Southern Catalpa (*Catalpa bignonioides*) which is commonly called the Indian Bean tree in its

native North

America. However, this is one of two specimens in the Cemetery of the much rarer Farges Catalpa, which originates in China and is distinguished by its beautiful lilac, burgundy speckled flowers. You can see the spectacular display of blossom in June, but it is, sadly, short-lived and the bean pods, up to about two feet long, replace them

remarkably quickly.



*Farges Catalpa in full blossom*

Initially green, the pods turn black as they ripen and split to release their seeds during the winter, leaving the empty sleeves looking like pairs of black shoelaces. But, even in this state, the tree looks quite distinctive.

Whereas most catalpas have heart-shaped leaves, Farges has long, tapering leaves that are quite elegant all season long.



Bean pods

On a practical note, Farges catalpa only reaches a maximum height of 8-12 metres (about half the size of the Southern catalpa), so is more readily accommodated in a small park type environment. In common with most species in the catalpa genus, Farges catalpa will thrive in full or part sun, poor or fertile soil and will grow across most climate zones.

If you miss the blossom on Farges Catalpa, there are two species of a cousin that are in bloom 6-8 weeks later not far away. This version, with larger leaves and predominantly white, though lilac tinged, blossom is thought to be a hybrid of the Southern and Yellow Catalpas, known as *Catalpa Purpurea*. Its beans are much shorter and less prolific.

These 'exotic' trees date from the 1960's when this part of the Cemetery underwent a lawn conversion. This was in line

with the general 'modernist' movement of the time which gave little value to things old. The aim was to create something resembling the war grave cemeteries with rows of memorials. While not the main objective, the simplification of maintenance and reduction of associated costs would have been seen as advantageous and, therefore, have influenced the decision to adopt these ideas. In general, the conversion involved moving all the headstones in alternate rows to the foot of the graves (should they now be known as footstones?) and taking out stone kerbs, to leave a broad clear swathe between twin rows of back-to-back headstones. Once levelled and grassed, most of the maintenance needs could be met by a reasonably sized mechanical mower. While a downside of the conversion was the replacement of large memorials with small utilitarian concrete stones, some compensation was provided by the planting of trees with noteworthy appearance through blossom, autumn colouring, etc. This added significantly to the role of Cathays Cemetery as an arboretum.

## Monkey Puzzle (Araucaria Araucana)

*A picture of the tree appears on the front cover.*

The Monkey Puzzle, looking like a giant chimney sweep's brush, is a native of the south-central Andes, typically growing above 3,000 feet. The tree was introduced to Britain in 1795 by Archibald Menzies, a botanist and naval surgeon. Having been served the seeds of the tree as a dessert while dining with the governor of Chile, he stowed them on board the ship, and returned to England with five healthy plants. However, it was Cornishman and star Victorian plant collector, William Lobb, who ensured that there were sufficient to satisfy the demand of the landed gentry. In 1842, he travelled to Chile, where he collected more than 3,000 seeds by shooting the cones down from the trees with a shotgun. One of this first batch of seed was taken to Pencarrow, Sir John Molesworth's Cornish estate, where Lobb's father was the estate carpenter. The proud owner showed the tree to a group of friends and one remarked that it would puzzle a monkey to climb it. The common name for the tree was born. Coincidentally, if you look closely at smaller young branches, they can appear remarkably like the prehensile tail of a monkey.



*"Monkey tails"*

The Monkey Puzzle is usually dioecious (having male and female cones on separate trees) though occasional individuals bear cones of both sexes. The male pollen cones expand to 8-12 cm long at pollen release, relying upon the wind for dispersion. The female seed cones mature about 18 months after pollination and are 12-20 cm diameter, holding about 200 seeds. The cones disintegrate at maturity to release the 3-4 cm long nut-like seeds.



*Pollen cones*

The seeds are edible, similar to large pine nuts, though taste better roasted rather than raw. They are extensively harvested in Chile and the tree has potential to be a food crop in other areas but does not yield seeds until it is around 30-40 years old, which discourages investment in planting orchards. But yields at maturity could be immense and, once established, trees could live for 150 years or more.





## **Cathays Cemetery Mini Guides ...**

**... aim to help visitors make the most of their time, by following a theme or particular interest. Some provide a trail that may take 30-60 minutes to follow but, alternatively, can be used to dip into when you have less time to spare. However you choose to use it, please enjoy the whole experience, taking in the parkland environment, seasonal flowers, blossom and colours and some beautifully crafted memorials.**

### **This guide ...**

**... takes you to five notable trees:**

**The Chinese Tulip tree, with leaf tones and blossom that can be enjoyed for much of the year**

**The Cedar of Lebanon, an iconic ancient evergreen that looks majestic throughout the year**

**The Foxglove tree, that should not be missed when in full blossom in May, but also has an interesting tale to tell.**

**The Chinese bean tree (Farges Catalpa), which looks glorious in June, but also interesting to observe through the bean phase**

**The Monkey Puzzle, another evergreen, with an aesthetic appearance to be savoured right through the year**

### **The Friends of Cathays Cemetery ...**

**... is a registered charity with the following aims:**

**To promote the conservation and protection of the infrastructure, monuments & buildings of Cathays Cemetery for the public benefit  
Likewise to promote the conservation and protection of the flora & fauna in the Cemetery**

**To advance the education of the public in the history and heritage of the Cemetery**

**To promote its importance as a conservation area and use as an educational resource.**



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