Trees in lavish variety

Owen Johnson discusses the extraordinary tree life to be found in Cardiff, a city that abounds with arboreal interest

Back in 2004, I was awarded an RHS bursary that helped fund a journey round Britain to explore the cultivation of unusual trees in public spaces. I began to uncover a varied picture: some towns are filled with rare species, creating robust, easy-to-manage landscapes to delight all and to inspire an interest in botany or gardening. Elsewhere, nearly all the trees may belong to a handful of common kinds: Manchester poplar (Populus nigra subsp. betulifolia), European horse chestnut (Aesculus hippocastanum) or claret ash (Fraxinus angustifolia ‘Raywood’). I have picked these three as examples of a clone, a species and a genus that have grown notorious for their susceptibility to specific pathogens, meaning that tens of thousands have been or will need to be removed. But the lesson holds true more widely: tree monocultures are vulnerable to epidemics and to potential climate change, and can be more expensive to maintain than an imaginatively planted collection.

This series of articles will celebrate the best in urban arboriculture and show how many of our rarest and most beautiful trees can be found, often incognito, in public places. But to begin, it seems appropriate to touch upon the issues and problems which surround gardening in the public domain. I will take as an example the city which happens to be the very best for its trees in Britain (and, for all I know, the world): Cardiff.

Rare and large trees

The Cardiff Council Horticultural Database (apps8.cardiff.gov.uk/plantguide) describes and illustrates 600 large tree taxa, plus 790 smaller trees and shrubs, cultivated within the city’s parks. Here, 67 trees are currently champions – the largest or tallest of their kind known in Britain and Ireland. Helped by warm summers, mild winters and rich alluvial soils, these include familiar species: in Bute Park, Paulownia tomentosa, planted probably in the early 1950s, had a trunk 131cm thick by 2013. Others are so scarce they are champions almost by default: Meliosma parvifolia, an old tree at
Another champion in Bute Park, thriving on the rich soil and mild climate, is *Paulownia tomentosa*, probably planted in the 1950s.

Rare trees in public places often exist because one council horticulturist stepped beyond the bare requirements of their job, and inspired a tradition of adventurous arboriculture. In Cardiff, the catalyst was William Wallace Pettigrew, a Kew-trained parks superintendent who in 1894 took the opportunity to begin a botanic garden in Roath Park, in collaboration with members of Cardiff Naturalists’ Society. Record-breaking species in this garden today include *Emmenopterys henryi*, *Ilex macrocarpa* and *Pterostyrax corymbosa*, but trees from Pettigrew’s time survive in lavish variety across the 3km of linked parks, including Britain tallest *Celtis australis* and *Morus alba*.

Working with William Harper as landscape architect, Pettigrew also planted several of Cardiff’s other open spaces, including Victoria Park and Llandaff Fields. He was awarded an RHS Victoria Medal of Honour in 1926 and in 1937 he published *Municipal Parks, Layout, Management and Administration*, probably the first textbook on this subject.

**A golden age of planting**

For Cardiff, as for many cities, the middle decades of the 20th century were a golden age of municipal horticulture. The city council had obtained three private estates of increasing size and significance: Insole Court at Llandaff in 1932, Cefn Onn on the city’s northern outskirts in 1944, and Bute Park – the parkland of Cardiff Castle in the city’s heart – gifted in 1947.

Bill Nelmes, who was also Kew-trained and had become director of parks in 1936, seized the chance to create botanical collections on a scale even more ambitious than Pettigrew. He laid out Parc Céfn Onn as a woodland valley garden with rhododendrons and a small pinetum, and planted Bute Park as an arboretum, genus by genus.

Nelmes’s trees at Bute include a gigantic champion *Pterocarya × rehderiana*, 27m tall with a trunk 216cm thick by 2013, and one of only two known survivors of golden-leaved elm, *Ulmus pumila* ‘Aurescens’. His treasures at Parc Céfn Onn include *Rehderodendron macrocarpum* and *Pseudotsuga macrocarpa*.

Terry Davies (a retired council horticultural officer) remembers Nelmes ‘used his contacts with nurserymen and the owners of large private gardens to collect some of the most unusual [trees]. He would frequently arrive on site with a car boot full of potted plants, look for a place to plant them with a head gardener and, if a suitable place could not be found... jam them in somewhere.’ Nelmes, too, earned a Victoria Medal of Honour in 1965 for his achievements in Cardiff. Two years later his son, Bill, succeeded him as director of parks.

Cardiff was a supreme example...
of a modus operandi which, up and down Britain through this period, efficiently managed public landscapes of great beauty and distinctive interest. Until the mid 1970s, the council maintained its own tree and shrub nursery at Llanishen. Of this, Davies says: ‘a wide range of trees were propagated here using the full range of horticultural techniques. Trees were grafted or budded onto stocks grown from seed, raised from lined-out hardwood cuttings [or] raised from seed’, and ‘until the late 1970s the district superintendents were all fully trained horticulturists boasting Wisley or Kew Diplomas.’

A budget was ring-fenced for procuring plants for new garden areas and ‘small specialist nurseries were often approached for the more obscure items. The purchaser often built relationships with [large] nurseries (e.g. Hillier, Wyevale, Boningale) who found that with a little extra work they could get a large order, sometimes the whole order, which might be more than £10,000. This meant they searched internationally for availability... If I was shown anything with which I was unfamiliar I always bought it then and there and looked for somewhere to put it later.’

**Cutting costs**

Compulsory competitive tendering (CCT), introduced in 1980, was one of the first jolts to this smoothly running machine. Mike Clark (a retired Cardiff parks operational manager) says: ‘I can’t speak for other council services but most staff working in parks up and down the country take a pride in their work and like to have some degree of ownership. CCT went a long way to destroying this. Many parks departments lost their staff because the private sector companies were able to undercut them on price and, of course, this led to huge loss of staff and skills. The traditional parks apprenticeship schemes virtually disappeared and of course the contractor’s main motivation was to cut costs to a minimum and make as much profit as possible.’

Against this backdrop, Malcolm Frazer, a city arboricultural officer, took the initiative in 1988 to rejuvenate Nelmes’s arboretum at Bute Park. He financed this by enabling citizens and organisations to sponsor a tree with a plaque for a fixed fee of around £100. ‘I used to trawl through all of the catalogues, the Plant Finder etc., looking for unusual species, in the days before the internet... I was extremely lucky that I had fairly free rein to order what I wished and plant where I wanted.’ As there were no longer adequate nursery facilities to grow on the often very young saplings Frazer was purchasing, they had to be planted straight out with a fence to protect them from strimmers. But
in a park as big as Bute, where young trees greatly outnumbered young vandals, many did survive. By 2013, 11 of the arboretum’s 40 champion trees were from these 600-odd plantings, including four fast-growing species of *Alnus*, and *Quercus durifolia*, one of the loveliest of the new oaks introduced from Mexico through the late 20th century.

**Hope on the horizon**

‘Of course, since we all retired it has all changed,’ Frazer reminisces. ‘There is very little horticultural input these days [from council staff] and the rules for purchasing have changed so that you can only approach firms who are on an approved list.’ Resources from the Heritage Lottery Fund have proved a mixed blessing, with often horticulturally illiterate project managers ripping out rare 20th-century tree plantings in the belief that they did not accord with the original design of a particular park. Any quirkiness or local flavour in public plantings is likely to be thanks to Friends groups or gifts from private citizens. Clark adds: ‘It’s a bleak picture nationally and parks need all the friends, advocates and support possible... The simplistic view held by some in government that volunteers can replace skilled parks staff lacks any understanding.’

Although Cardiff has for now to rest on its laurels (rather than planting exciting *Lauraceae* which should thrive in its microclimate), its city council has kept some skilled parks staff, and recently started a parks apprenticeship scheme. Frazer continues in retirement to guide the Friends of Roath Park in making fitting tree purchases.

Cardiff also provides the best example of any local authority of how to celebrate a great horticultural heritage: visit www.cardiffparks.org.uk/trees for an introduction to many more of its varied tree species.

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