The difference between Arboriculture and Forestry

Pro Arb caught up with Steve Fowkes of the Forestry Commission and Ted Wilson, Royal Forestry Society (RFS) education manager to define the differences between arboriculture and forestry

How would you define the difference between the two disciplines?

Steve Fowkes: Arboriculture is the practice of establishing and managing individual trees, generally for amenity purposes. Forestry (or silviculture) is the practice of establishing and managing crops of trees, generally for timber production.

Ted Wilson: I think it’s important to recognise the similarities between the two disciplines, although arboriculture is primarily focused on working with amenity trees and forestry is focused on the sustainable management of woodland. Each discipline has specific skill sets, but both are concerned with a balance of immediate action and long term planning, due to the longevity of trees and the time horizons involved in nurturing woodland. In recent times the two professions have come closer together because of the greening of urban spaces and the development of urban forests. Another important similarity is the need for strong communication skills – both arborists and foresters deal with highly technical and scientific information, but they must translate this into a language that engages the wider public. They are advocates for trees and woodlands.

It’s interesting to note that what we now know as the Royal Forestry Society began life in 1882 as the English Arboricultural Society. There has been interplay between forestry and arboriculture throughout recent history and perhaps it is not always useful to stick to hard and fast definitions.

Are the two different in terms of procedures and the tree work which takes place?

SF: Arborists are usually trained in the practice of tree climbing using rope and harness techniques, and/or use of mobile elevated work platforms (MEWPs) in order to access tree canopies for management purposes. Foresters will generally not leave the ground, and may be trained in the use of mechanised harvesting machines. However, as there is increasing recognition of the urban and peri-urban tree resource as a forest, rather than a set of individual trees, there is a correspondingincrease in the recognition of urban forestry as a discipline, which combines elements of arb and forestry in planning and management.

TW: Both disciplines have developed their own approaches and procedures. However, tree biology and bio-mechanics are essential subjects for arborists and foresters. I think the differences arise from the way trees grow. Amenity trees growing mostly in the open will have a very different life trajectory compared with a tree growing in a forest stand. The purpose of the trees and the objectives of management very much drive the types of
work that is carried out. For example, arborists may be more concerned with managing the crown of a mature open-grown broadleaved tree, whereas a forester may be concerned with stem quality, reduced lower branch formation and increment. An understanding of tree and forest health, and appropriate control measures for pests and diseases, are common issues for both disciplines. Given our concerns about the resilience of trees and woodland at the present time, there is much opportunity for the two disciplines to work together on sustainable and environmentally sound solutions.

Are priorities for the two disciplines similar?
SF: Arborists will carry out the management work often for safety or tree health purposes, as the main focus of the management is intervention. They are providing a service. The timber and arisings produced are by-products of the service. Foresters will carry out the management as a means of improving or producing an end crop of timber which will be sold into a market; the associated benefits or services of sustainable multi-purpose forestry are by-products of timber production.

TW: Both disciplines are relatively small, compared to some other professions. Society does not always recognise that trees and woodland need careful management. Therefore, it is important to work collaboratively on shared priorities. In my view, these include promoting the importance of trees and woodlands in communities and across the wider landscape, promoting the importance of professionalism, working to minimise the impact of invasive pests and diseases and encouraging young people to enter our professions.

Why is it that not everybody can define each industry separately?
SF: Possibly because there are individuals and companies who carry out work under both disciplines, and on the face of it, both are broadly similar – people doing stuff with trees.

TW: I’m not sure that I agree with this question. We need to recognise that each professional arborist or forester will have their own areas of interest and specialism. This will be partly a factor of their own personality and enthusiasms, and partly directed by the nature of their job or business. I think it’s important to recognise that there’s a spectrum. We need a constant interchange and sharing of information, as well as collaboration, to keep learning and deliver our services to a high standard that meets the client and societal needs.

In your experience, is one sector more profitable than the other?
SF: I have no personal experience of the profitability of arboriculture. Silviculture can be profitable but the capital inputs of woodland creation are high, the returns may take a long time to mature (particularly in hardwood silviculture), forest harvesting can involve machinery costing upwards of £250,000 and extreme weather events, pests and diseases are a threat to investment.

TW: It depends how you define profitable. Profitable in economic terms? In terms of personal fulfilment? No, I would never suggest one is more profitable than the other. If I was asked by a young person for career advice, I would say it is important to pursue the area that you are most passionate about and perhaps to keep your options open, a little. The rest takes care of itself. In all sectors it is personal drive and passion that determines success. A young arborist should rightly focus on all the tree care and maintenance topics, getting the essential tickets, learning about business practices. But it does no harm to add in a module on woodland management. The same advice would hold for a young forester.

If given the choice, which sector do you believe should receive more attention / funding?
SF: Arb tends to be higher profile already – a lot of arb activity is, by its very nature, carried out in or near places with higher population concentrations than forestry, so people tend to be more aware of it, and are much more likely to have engaged directly with an arb worker than a forester.
Forestry is largely carried out in remote areas and ‘backstage’ to the forest landscape, even for people who visit accessible forests. In addition, there is a popular misconception that felling trees in a forest is bad.

In terms of funding, while both disciplines are largely reliant on micro-enterprises who traditionally struggle with capital investment and business expansion, forestry businesses are further disadvantaged by the rural areas in which they largely operate — finding appropriately skilled and motivated new entrants is difficult, and that’s exacerbated by poor access to transport and affordable housing. Likewise, fluctuations in timber prices, exchange rates, seasonal constraints around ground conditions, nesting birds, conflicting management interests and a range of other factors can create a working environment prone to market failures.

Is the equipment used in each discipline largely similar?

SF: Yes and no. Planting trees and tending them in the early stages of growth are common to both, except on the scale of forestry operations, which tend to be higher numbers of smaller trees. Foresters won’t use climbing equipment or machinery, by and large, although some urban and estate foresters will doubtless cross disciplines where both timber production and amenity trees are part of their remit. Timber harvesting can involve either motor manual or mechanised operations, with the latter often using large scale machines and forwarding equipment to transport timber from the felling site to roadside. There are obvious parallels with the use of chainsaws, but arb operations often use a chipper to process felled timber directly at the worksite. Chipper use in forestry is commonly associated with wood fuel production, but is generally carried out at an off site location to which the timber must be transported.

TW: Both are equally important, in fact vital, and we need more, more and yet more promotion and support for trees, woods and forests. However, I’m not sure we should always be looking to funding from government as the way forward. In the post-Brexit era where reliance on funding for environmental projects is very uncertain, we should be working together to identify sustainable models and solutions that are not totally reliant on public sources of funds. There is a lot of talk about ecological resilience and I believe this needs to be extended to embrace economic resilience for trees and woods.

Could an arborist easily transition into forestry work, and vice versa?

SF: Given the right skill sets and training, there’s no reason why not. Some businesses already operate across both disciplines as available work, seasonal constraints and availability of staff dictate.

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TW: The answer to this lies mostly in temperament and the enthusiasm of an individual. If you see a new opportunity and feel drawn to a new area, then there is no reason why an arborist cannot transition to forestry, or vice versa. More exchange like this would add to and strengthen our profession. The matter of gaining tickets, licences and qualifications is a secondary matter, more an issue of logistics.

Should there be better cohesion between the two professions?

SF: Where there is a benefit from better cohesion, then absolutely, yes. Forestry and arb already work together in some instances — a good example being the joint development of new apprenticeship standards for arb and forestry under the government’s Trailblazer programme. The common concerns of health and safety, professional development, biosecurity and good practice in tree management will be far better addressed when both sectors are communicating and sharing new insights, best practice and working experiences. Whichever discipline you’re in, you want a safe, professional and profitable working landscape, and better cohesion can only help with that.

TW: There is already a lot of collaboration and cohesion. As urban forestry becomes more important, I see the traditional strengths of arborists and foresters being blended and more integrated.