

Some General Management Considerations for our Ancient Yews

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A Good Starting Point

Please be advised that whilst a good starting point the information below is only general management advice. Please remember that each ancient yew tree is different in regard to its specific location and with its specific issues, and the considerations below are no substitute for obtaining professional advice from a suitably qualified arborist* **before** any tree works are carried out.

** Members of the Arboricultural Association, Institute of Chartered Foresters, Consulting Arborist Society, Ancient Tree Forum or an ISA Certified Arborist. Alternatively, a consulting arborist recommended by your local Council Tree/Forestry Officer.*

Introduction

The UK is probably unique in Europe in having a priceless resource of ancient yews (those older than 800 years). We must then consider their careful management and also look towards caring for the ancient yews of the future.

First some general points on trees (future ancient yews included!):

- Tree roots generally grow in the first 60cm of soil (where there is ample oxygen).
- Tree roots generally grow out as a 'shallow plate' reaching the outer most branch tips and beyond. Tap roots are rare.
- Tree roots need oxygen, water and free space in which to grow.
- Trees have stored 'food' reserves in their trunks, branches and woody roots. Thus a tree with fatal damage may survive for 3-5 years living off these reserves until it dies. This is known as a mortality spiral of decline (see mass:energy ratio later).
- Always follow the pruning recommendations in BS:3998*.
- Tree & construction: follow the recommendations in BS:5837*.
- Trees & utility trenching: follow the recommendations in the *NJUG Guidelines for the Planning, Installation & Maintenance of Utility Apparatus in Proximity to Trees (Volume 4)**.
- Trees may be protected by Tree Preservation Orders or be growing in Conservation Areas: seek advice and written permission/consent **before** any management works.*

An excellent reference: "*Ancient & other Veteran Trees: further guidance on management*" Ancient Tree Forum (2013). Edited by Dr. David Lonsdale

** Further details available from your council tree/forestry officer.*

Management of ancient yews:

The best policy is non-intervention. Prune to the absolute minimum. These trees have survived for hundreds/thousands of years without the need of a 'hair-cut'. Let's remember that pruning wounds harm trees. There are exceptions to this, for example, formative pruning of young trees or pollarding/coppicing. There may also be occasions when an ancient yew may need pruning to abate structural defects thereby preventing limb loss or the falling apart of the crown.

Why non-intervention? Ancient yews have an unfavourable mass:energy ratio. In other words, they have a large mass to support (e.g. trunk & scaffold limbs) with only a relatively small canopy (leaves that photosynthesis to make sugars that feed the tree: autotrophic). Therefore removing portions of the canopy (i.e. the infamous just-give-it-a-haircut) can shock the tree by affecting its food making capability and send it into a slow but sure mortality spiral of decline.

Taking advice. Arboriculture is a distinct art and science to be separated from horticulture. Unfortunately, myths and misguided best intentions are common, so please take sound arboricultural advice. With much respect, not the word/opinion of a gardener.

If they must be pruned. Crown reductions or thinning on ancient yews should be done in staged pruning operations (e.g. perhaps one side first then the top and the other side over a 7-9 year period) to give the tree time to recover between pruning events (see mass:energy ratio above). Overall a 30% crown reduction or thin should be the absolute maximum (spread as above). Please remember that many ancient yews may have Tree Preservation Orders or be in Conservation Areas: consult your local Tree/Forestry Officer (a good source of tree advice in any event) or the local Planning Department. Other local sources of advice and information may include the ISA's Certified Arborists (www.isa-uki.org), the AA Approved Consultants & Contractors (www.trees.org.uk) or The Tree Council's Tree Wardens.

Pollarding (started when a tree is young by removing its canopy) is a sound tree management practice that must be done every 3,5, or 7 years thus creating a pollard head with only small pruning wounds. Mature/ancient trees with a full canopy cannot be pollarded: this is topping or lopping (see below).

Topping or Lopping. Simply never. This is the language and 'craft' of cowboy tree surgeons. It creates large wounds that maim and kill trees. *The use and practice of lopping and topping*

is a malpractice that causes irreparable damage to trees and has no place in modern arboriculture.

Non invasive propping or cabling. Large scaffold limbs may need this treatment if they are in danger of failing. Such systems need regular inspection*. Please seek specialist advice.

* I was once asked to look at an ancient yew apparently suffering from drought stress. When I arrived on site, I was met by a tree wrapped up with tens of metres of steel cable. With the cable now embedded – after many years – in the bark, the tree was literally being strangled to death (re: impeded water flow in the vascular tissue). Careful removal of the cable (leaving sections too deeply embedded in situ) saved the day!

Ivy. This smothers the canopy and can kill trees (see autotrophic capability above), so removing the basal ivy stems (in 20cm lengths to stop them re-grafting) will kill off the ivy above in the canopy. This is a common issue and ivy must be controlled to prevent limb loss or the demise of affected trees.

Ancient yews and hazards. For trees to be hazardous a target has to be present (e.g. a footpath or a bench). If an ancient yew has structural defects (e.g. cavities or cracks) the first consideration should be whether the target could be moved or re-sited. Secondly, can the tree be fenced-off with the appropriate signage? If the answer to all these is no then some tree pruning may be necessary to abate the hazard.

Ancient yews: vitality.

As with all living organism vitality decreases over time. You can 'help' ancient yews by:

- Mechanically remove* any grass under the crown of the tree or at least 1.0m out from the trunk.
- Then apply a layer of mulch (8-10cm thick) – but not against the trunk (as this can introduce wood decay fungi).
- The area to be mulched should be at least a metre radius from the trunk, but taking it out as far as the branch spread is better still. This keeps the soil moist and eliminates the grass/weeds that are competing for water and mineral elements in the soil.
- Wood-chippings (a by-product of tree surgery works) make an ideal mulch. Avoid using wood-chips from acacia, cypress or Eucalyptus as these release chemicals into the soil that can affect tree root growth. Rotten grass-clippings are no substitute for a wood-chip mulch.

** Not by digging (or with herbicide) but by carefully scrapping off with a spade so as not to damage surface tree roots.*

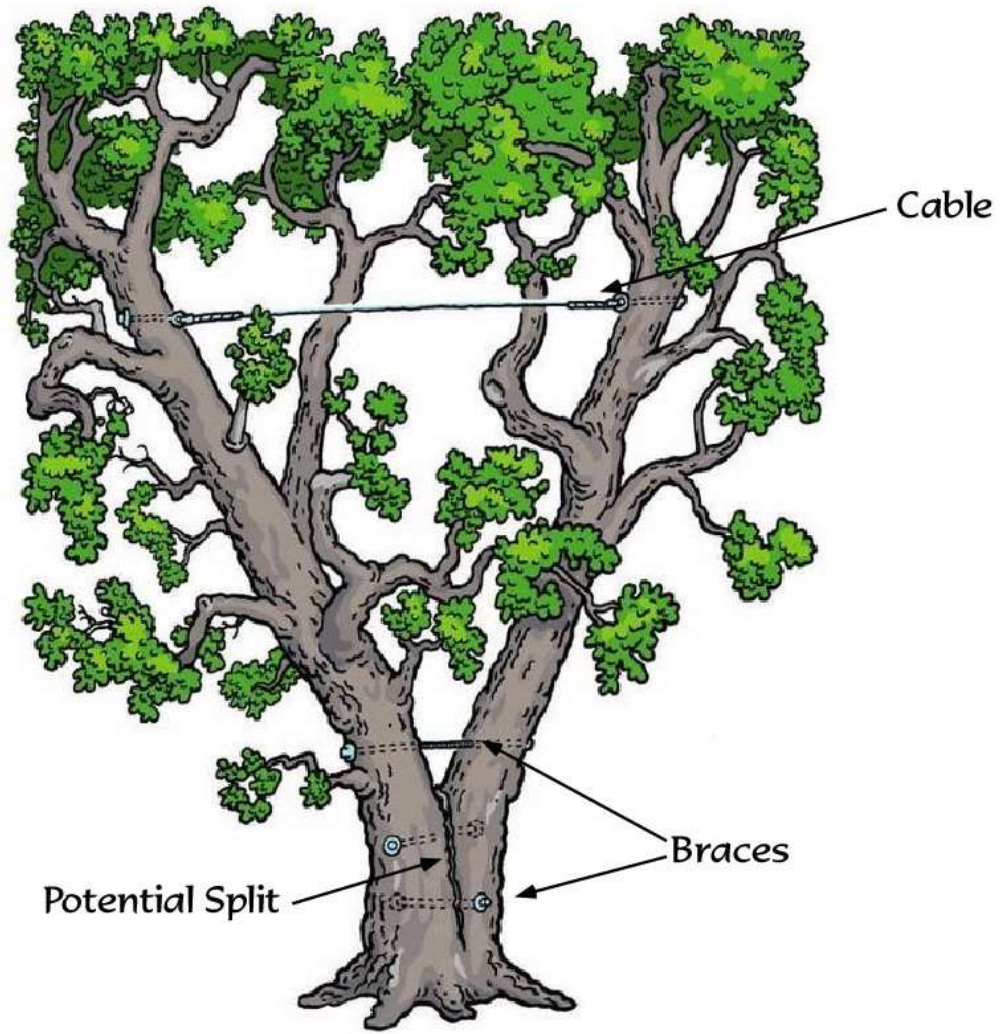
Yews and compaction: The effect of compaction (by foot & vehicular traffic) reduces oxygen, water availability and (root)

growing space in the soil. This can seriously harm or kill trees. Fencing-off trees or placing a raised board walk for visitors can be a solution.

Ancient yews in churchyards. They offer valuable shade and a refuge under which to sit and ponder: not a spot to locate fuel tanks, compost heaps or store bags of cement or other building materials. The area beneath ancient yews must be regarded as sacrosanct. Mulch only please.

So please let's consider ancient yews as special case. Or shall we be known as the generation that neglected and disregarded a priceless resource.

Ways of supporting structurally compromised limbs (cabling, propping & bracing)



Propping



Bracing (though will need to be reviewed for careful removal: see banding beginning to 'cut' into the trunk)



Mulching under a yew crown



Ivy removal on a small tree



Large ivy stems cut through: keys included for scale. (**NB** to remove these may have caused damage to the underlying tree bark). If the ivy remains alive up in the crown then the cutting may have to be repeated.

