

The significance of coppice woodlands in the protection of cultural heritage

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Cultural heritage defined

- **Cultural Heritage** is an expression of the ways of living developed by a community and passed on from generation to generation:
 - customs, practices
 - places, objects
 - artistic expressions and values
- **Cultural Heritage** is expressed as
 - **Tangible** or
 - **Intangible** Cultural Heritage

(ICOMOS, 2002)

Tangible cultural heritage

- **Tangible heritage** includes
 - buildings and historic places
 - monuments
 - artifacts

that are considered worthy of preservation for the future.

These include objects significant to the archaeology, architecture, science or technology of a specific culture.

Intangible cultural heritage

- **Intangible heritage** includes traditions inherited from our ancestors, that can be passed to our descendants:
 - arts & crafts
 - language & literature
 - customs & traditions
 - knowledge & skills

Intangible cultural heritage is important for maintaining cultural diversity, locally and regionally, to balance the effects of globalization.

Coppice defined

‘Coppice’ covers many things:

- a type of woodland consisting of trees that are periodically cut – *a coppice*
- the multi-stemmed trees that occur in such woodlands – *coppiced* trees

‘coppicing’ also includes *pollarding, shredding* and *lopping* – as these actions cause regeneration of shoots from cut stems, with deliberate management objectives .

coppicing

Groups of multi-stemmed ***stools*** in one site form a ***coppice***.

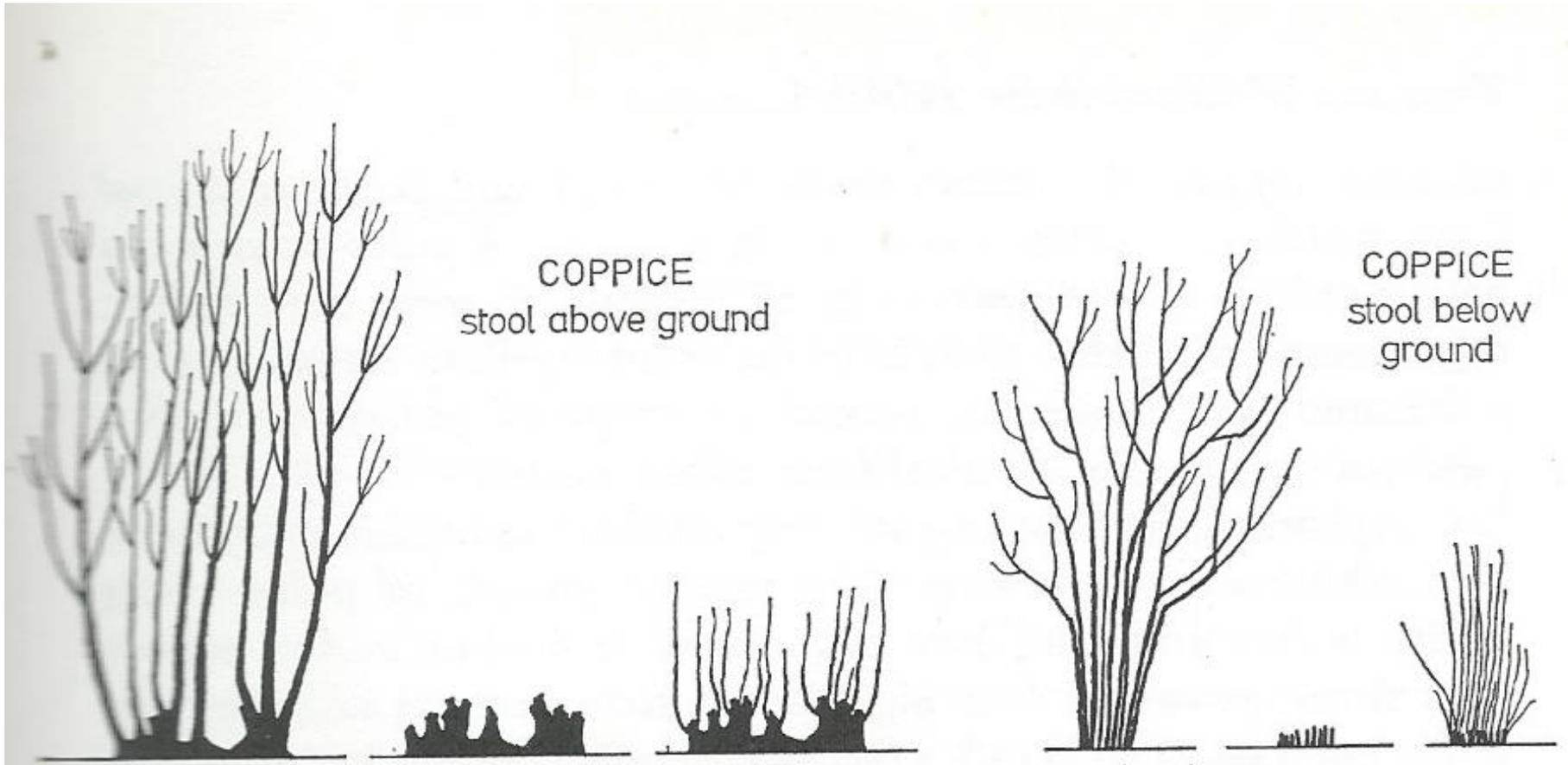
Groups of ***pollarded*** or ***shredded*** trees may not form 'woodland' but instead can form identifiable historic landscapes:

- *groves*
- *orchards*
- *pasture-woodlands*
- *parks & avenues*
- *field, highway and urban trees*

Ancient & modern

- Coppice woods can be found on sites that have been continuously wooded for millennia...
- ...and also on sites that have only recently been established as coppice
- cultural heritage assets derive
 - from the continuity of woodland management
 - from the land use(s) prior to coppice establishment.

Coppice structures



Rackham 1976

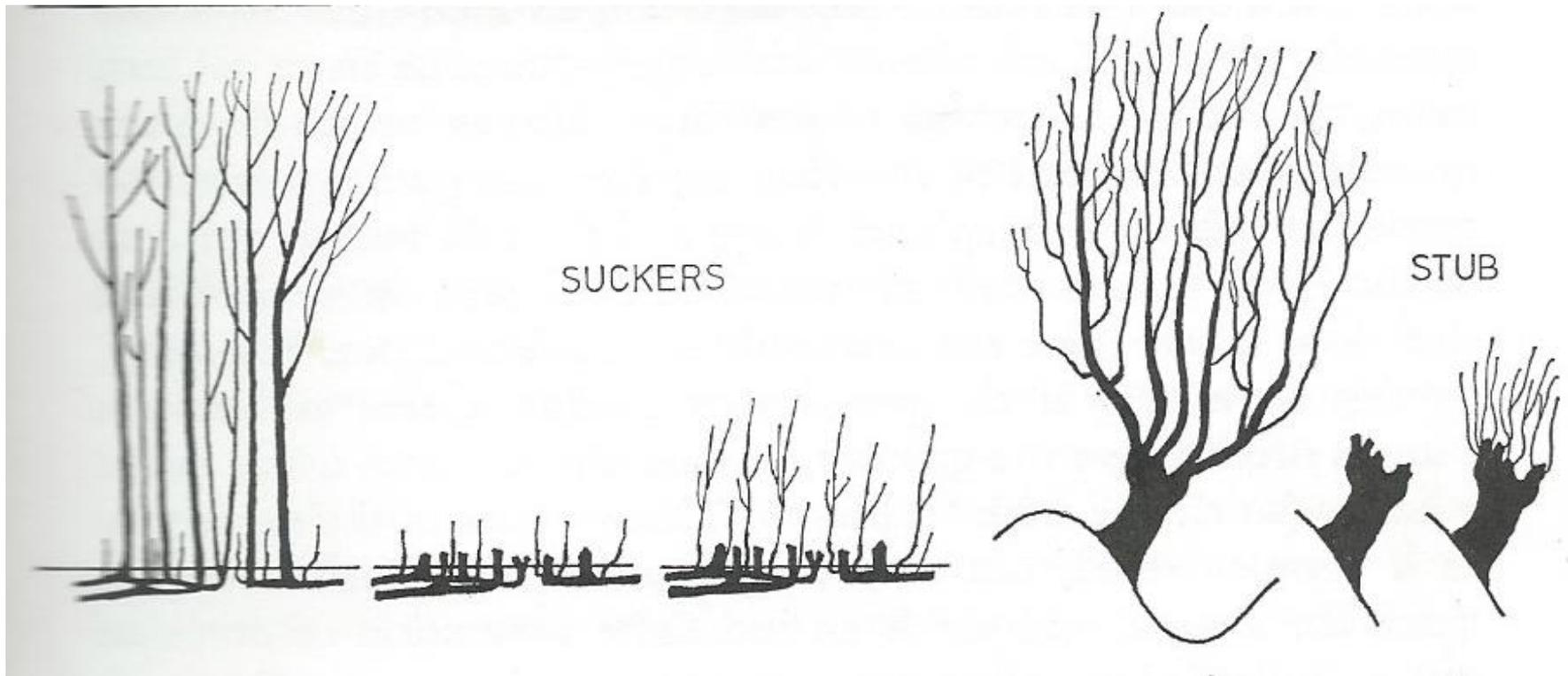
Classic English sweet chestnut coppice



Classic English lowland ash/hazel coppice with oak standards

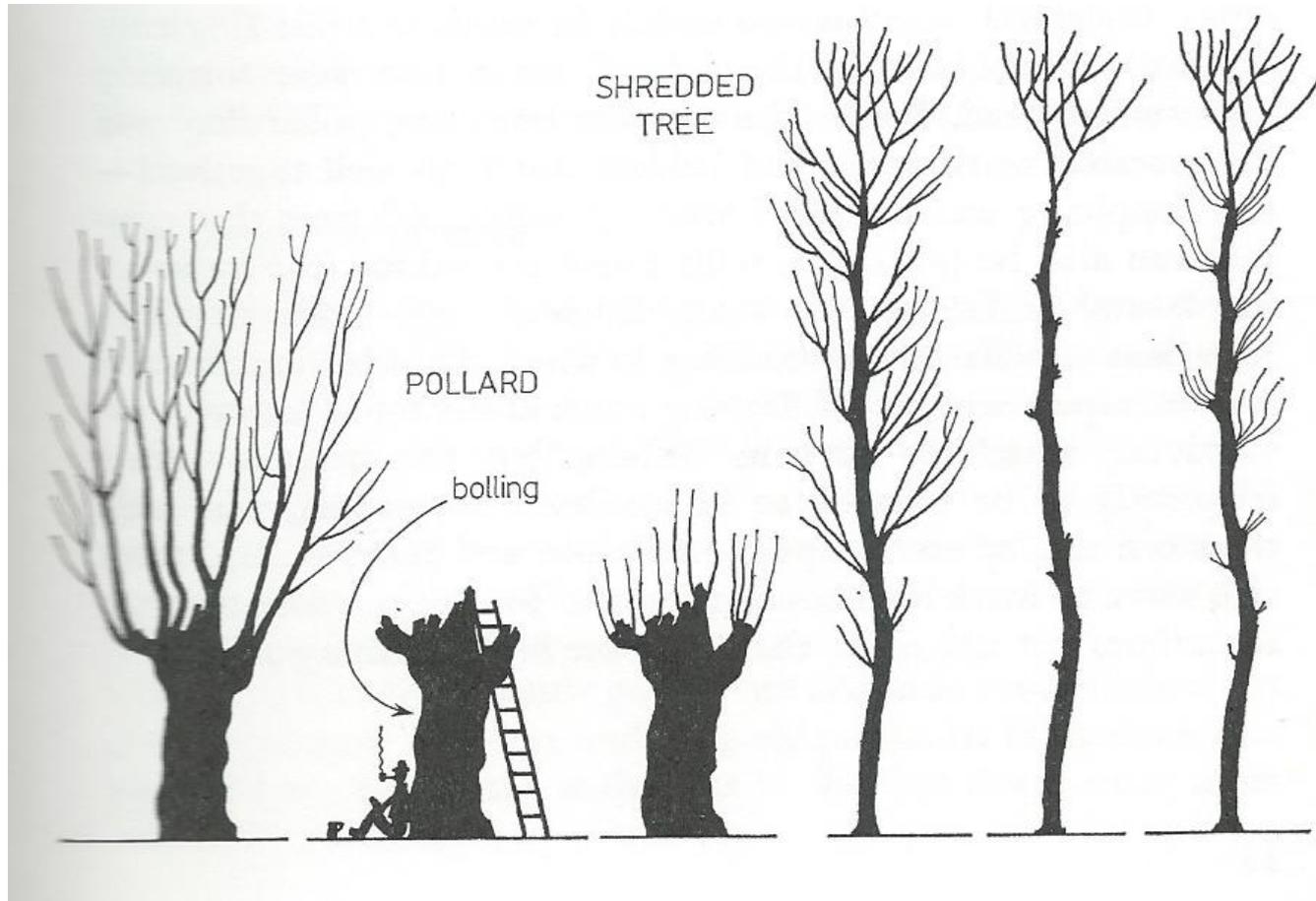


Suckers & Stubs



Rackham 1976

Pollards & Shreds



Hornbeam pollards, Hatfield Forest, Essex, England



Pollarded willows, Somerset Levels, England



Cultural heritage OF coppice & Cultural heritage IN coppice

- Coppice woods are by definition a cultural heritage resource – created and maintained by human activity over many generations
- Coppice woods contain within them a great variety of cultural resources, ancient & modern, reflecting human activity over millennia

Continuity and evolution

- The essence of coppicing is a blend of
 - continuity, repetition
 - rejuvenation, innovation
 - adaptation...
- ...over a timespan that encompasses >1 generation of workers and users...
- ...a worker might come back to the same coupe to harvest the coppice 3 or 4 times in their life...
- ...yet in the course of those 50-60 years the nature of the place, the crop and the markets for the produce might shift dramatically...or remain remarkably and comfortingly stable.

**The Bronze Age
Eclipse Track**



Hazel panels cut from
coppice in 3,000 BC:
Somerset Levels peat
moors, England



willow panels cut from coppice AD 2005, Somerset Peat Moors



Cultural heritage of coppice

Tangible heritage interests found in coppices include 'dead' assets and 'living' assets – the infrastructure of coppice.

- **Dead assets**

- banks & ditches
- rides & tracks
- cultivation marks – ridge & furrow, lynchets...
- hollow ways, timber slides
- boundary markers
- charcoal-making platforms, smelting sites
- wood processing sites e.g. ponds for retting lime poles for bast,
 - fire sites for potash (soap), tan bark peeling sites
- archaeological artefacts above & below ground

Welshbury Wood, Gloucs, England: first written record, as a wood, in AD 1141

1999

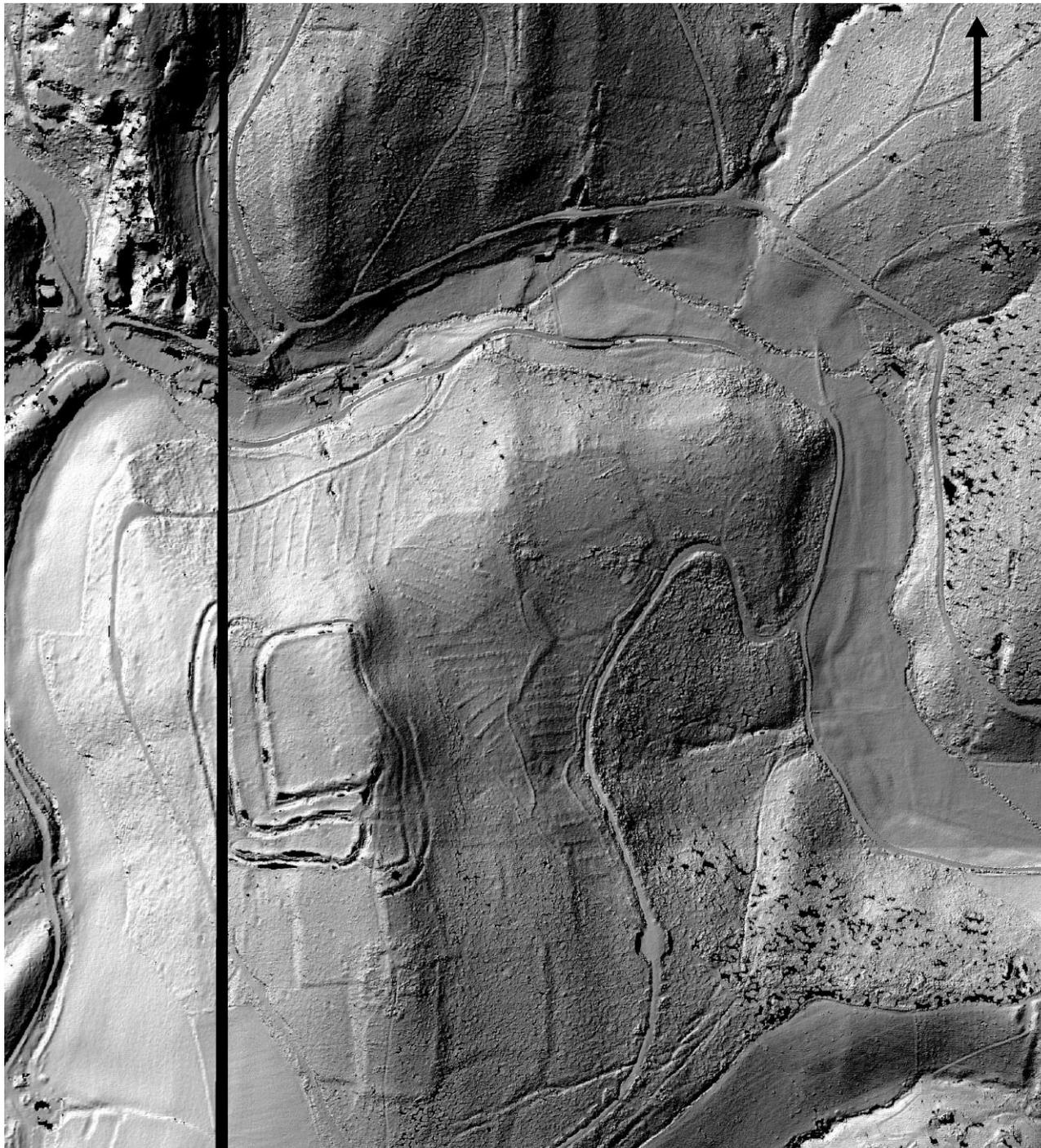


2009



Welshbury revealed - the magic of LiDAR





Welshbury Wood:

- Bronze Age field system
- Iron Age fort & iron smelting sites
- Roman occupation & iron works
- medieval coppice & iron works
- now, lime with sweet chestnut woodland

Small leaved lime coppice on the Iron Age fort
– genetic mapping reveals clonal root systems of large scale



Iron Age ditch examined for buried soil and for ditch infill to be sampled





Roman 3rd-4th C AD
Oxford Ware



Medieval 13th C
AD

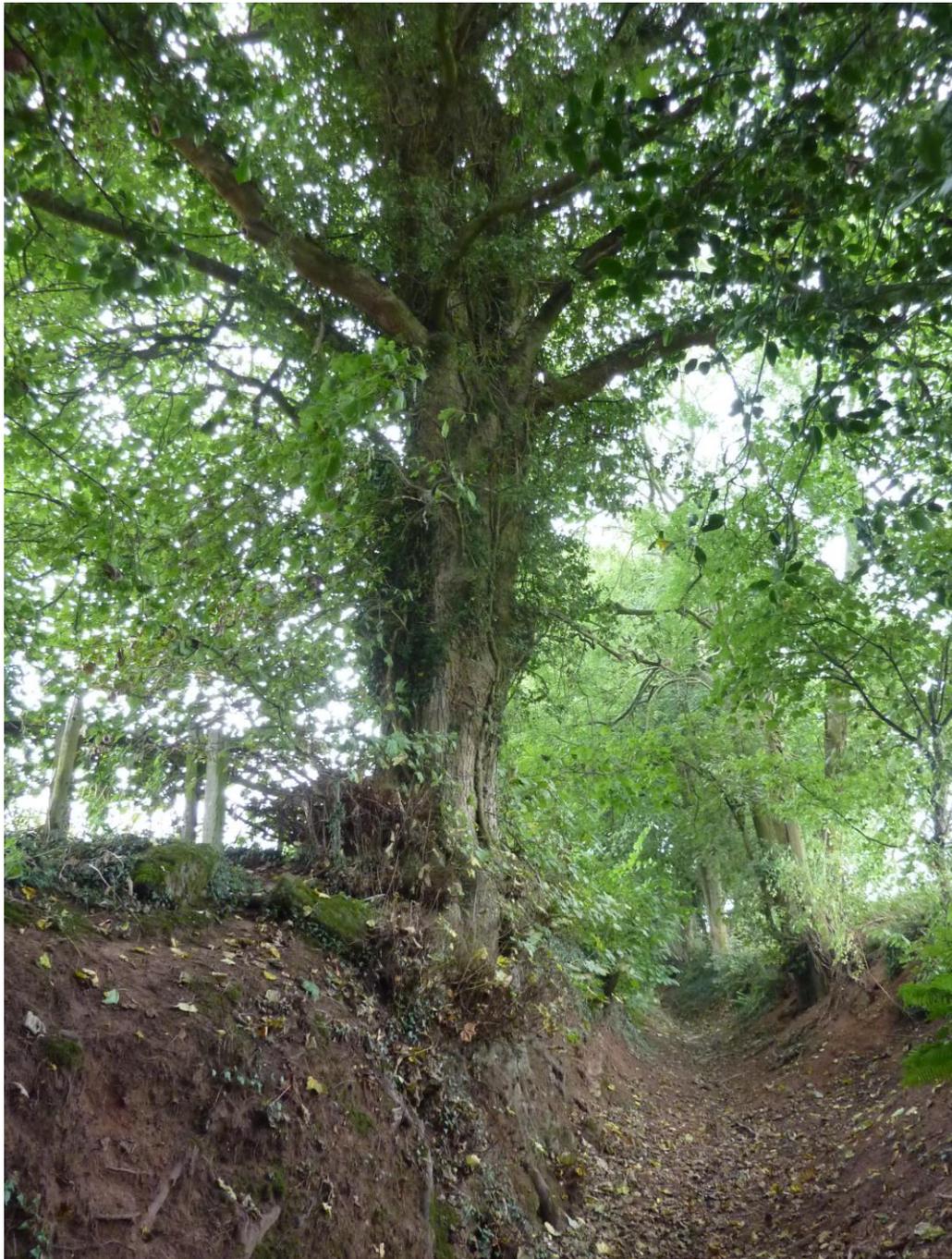
Welshbury fort pollen analysis – preliminary results for the arboreal species, from 2 sample points straddling the Roman period pottery and OSL soil core dates

	upper	lower
TAP	211	144
<i>Tilia</i>	17%	67%
<i>Castanea</i>	61%	2.8%
<i>Corylus</i>	11%	27%
<i>Betula</i>	4%	1.4%
<i>Quercus</i>	4%	0.7%
<i>Ilex</i>		0.7%
<i>Ulmus</i>	0.5%	
<i>Alnus</i>		0.7%
<i>Pinus</i>	0.5%	
NAP	712	1336





Sweet
chestnut
coppice
stool
within
the lime
coppice –
15metres
girth -
DNA
proves
clonal



Hollow ways, boundary
marker trees, ancient
stools:
a prehistoric
landscape...

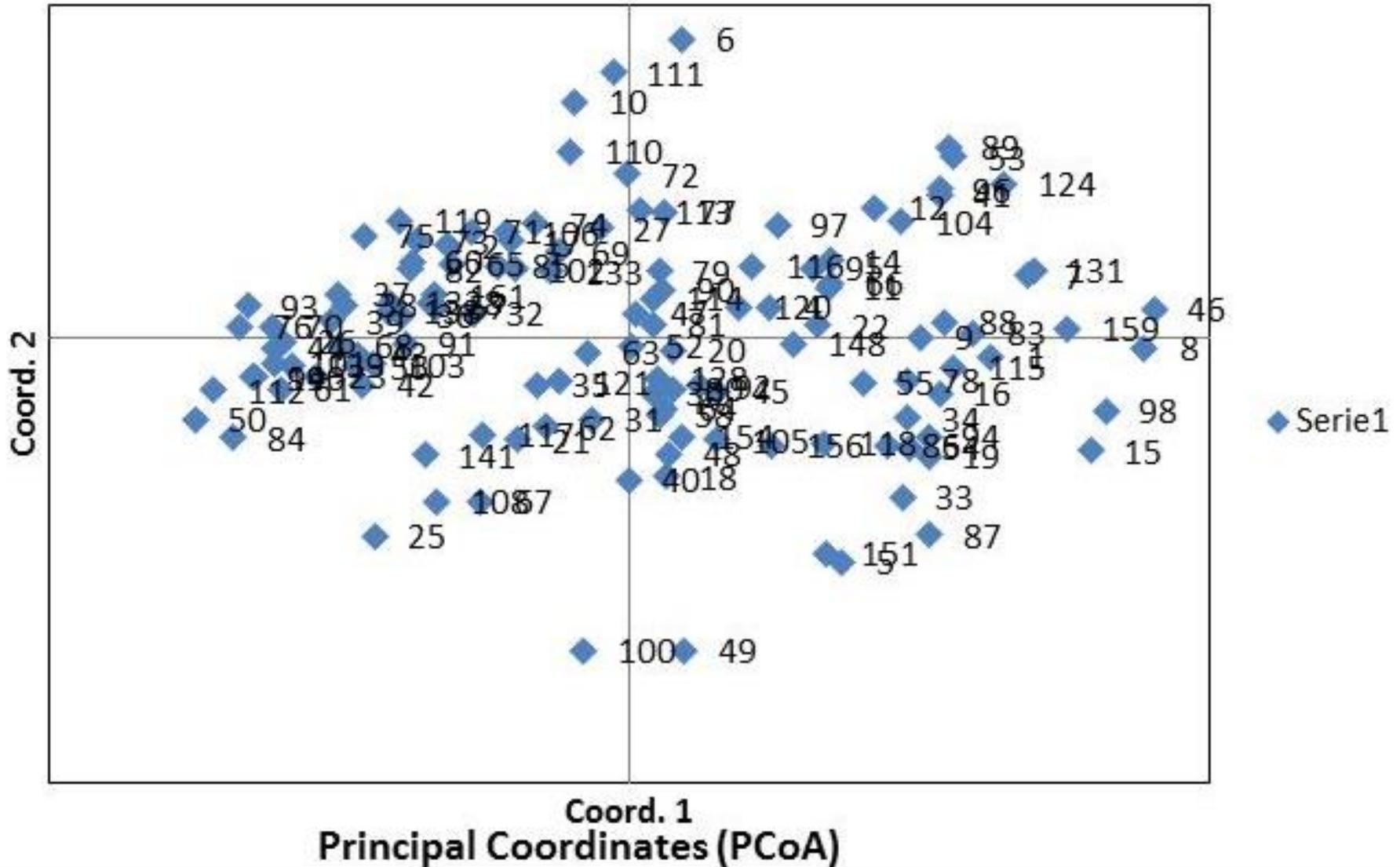


Tangible cultural heritage

- **Living assets**

- pollards, stubs, veteran trees
- stools, layers, pattern & spacing within a wood
- patterns of coppices and trees at a landscape scale
- DNA – clonal, indigenous/non-indigenous – indicates antiquity & provenance of coppice
- special plant & animal assemblages, creating significance
- SOILS – a crucial store of palaeoenvironmental evidence – in accumulated & buried soils and in long-undisturbed soils – one of the most valuable aspects of ancient semi-natural woodland...
- PEOPLE who know, love and tend their coppices
- people who process the many products of the coppice
- communities who appreciate and value their coppices.

DNA analysis of sweet chestnut trees & stools - 160 sites so far in England... a cultural legacy...





A multi-purpose
medieval landscape:
coppices, pollards,
timber, grazing,
hunting



Bradfield Woods



Cultural heritage of coppice

‘lateral’ aspects of cultural heritage associated with coppices include:

- food – nuts, berries, fungi, game - illicit or otherwise!
- artisanal products – turnery, hurdles, fencing, spars
- social history – diversity created by varied ownership and occupation
 - crown
 - manorial
 - monastic
 - communal
 - Industrial
 - institutional
- art/literature and language - *lits de parlement!!*

Benign or malignant coppice

- Coppicing has been practiced on a spectrum of benign to detrimental levels:
 - Utilizing the wildwood – opportunistic/minimal impact
 - Adapting the wildwood for specific products
 - Exploiting the woodland beyond its capacity to regenerate
 - Destroying the woodland through over-exploitation or direct clearance

Purposeful heritage

- Restoration of ‘traditional’ coppice should not repeat its detrimental effects – we should better understand the legacy of the past...
- Establishment of new coppice should learn from previous mistakes and not recreate old problems!
 - Soil erosion
 - Nutrient removal
 - Biotic impoverishment
 - Labour exploitation
 - Archaeological cleansing

Threats to cultural heritage in coppices

Damaging impacts on-site:

- SOILS HAVE MEMORY...archaeology and palaeo-environmental evidence v v sensitive to soil changes
- compaction of soils (surface & sub-surface)
- soil moisture change, both +ve and -ve
- soil pH & chemistry change

- harvesting - disturbance < despoliation
- windthrow (root plate uplift – overstood coppice)
- conversion – selective felling < replanting
- invasive species - plants & animals (hybrid boar...)
- clearance – direct/indirect (livestock)

Threats

Damaging impacts from off-site:

- loss of skills – workers & abilities
- loss of markets
- loss of knowledge – place-specific or craft-specific
- loss of cultural identity - homogenization
- standardization of products & processes

Opportunities for cultural heritage in coppices

- knowledge – new surveys, new techniques
- awareness – importance & sensitivity of cultural heritage
- practical action – conservation & preservation
- consumer choice – green, ethical, local
- added value from craft & design
- voluntary measures – owners, community
- fiscal & legal measures – incentives & constraints

Conclusion

- There is popular interest across many European regions in community woodlands, woodland crafts, use of wood instead of artificial materials, use of wood fuel instead of fossil fuels, local food & artisanal products...
- Ancient woods will survive if their products are in demand...
- *LOVE THY COPPICE AS THYSELF...!*

Conclusion

- conversion of ancient coppices to high forest or non-wooded land should be avoided
- respect the legacy of previous land uses in all woods, old and new
- Both old and new coppices require sensitive management to protect their cultural and ecological interests, which are interrelated and synergistic.

that's a yes, then!

