

# **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*.

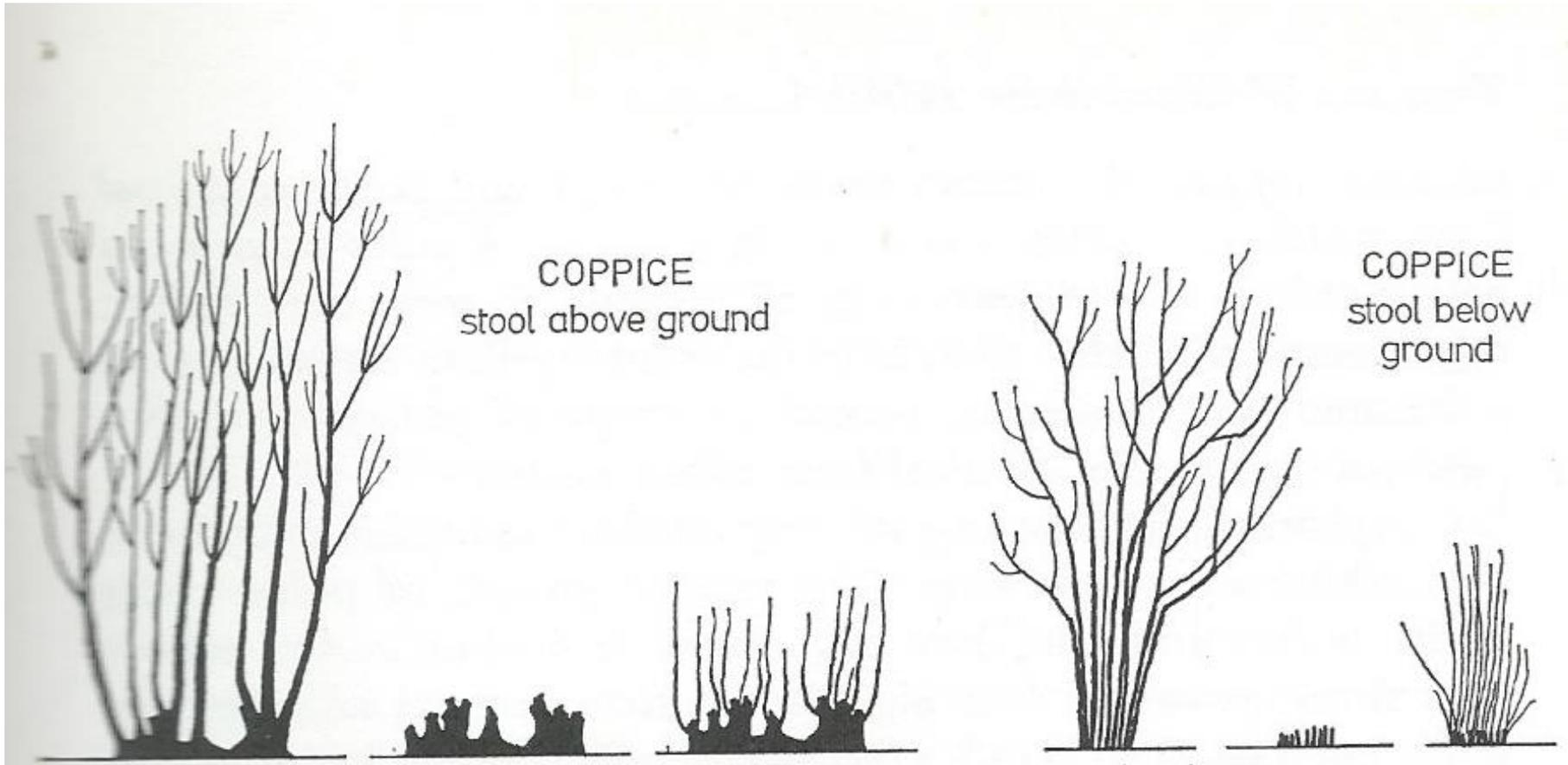
Groups of *pollarded* or *shredded* trees may not form 'woodland' but instead can form identifiable historic landscapes:

- *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

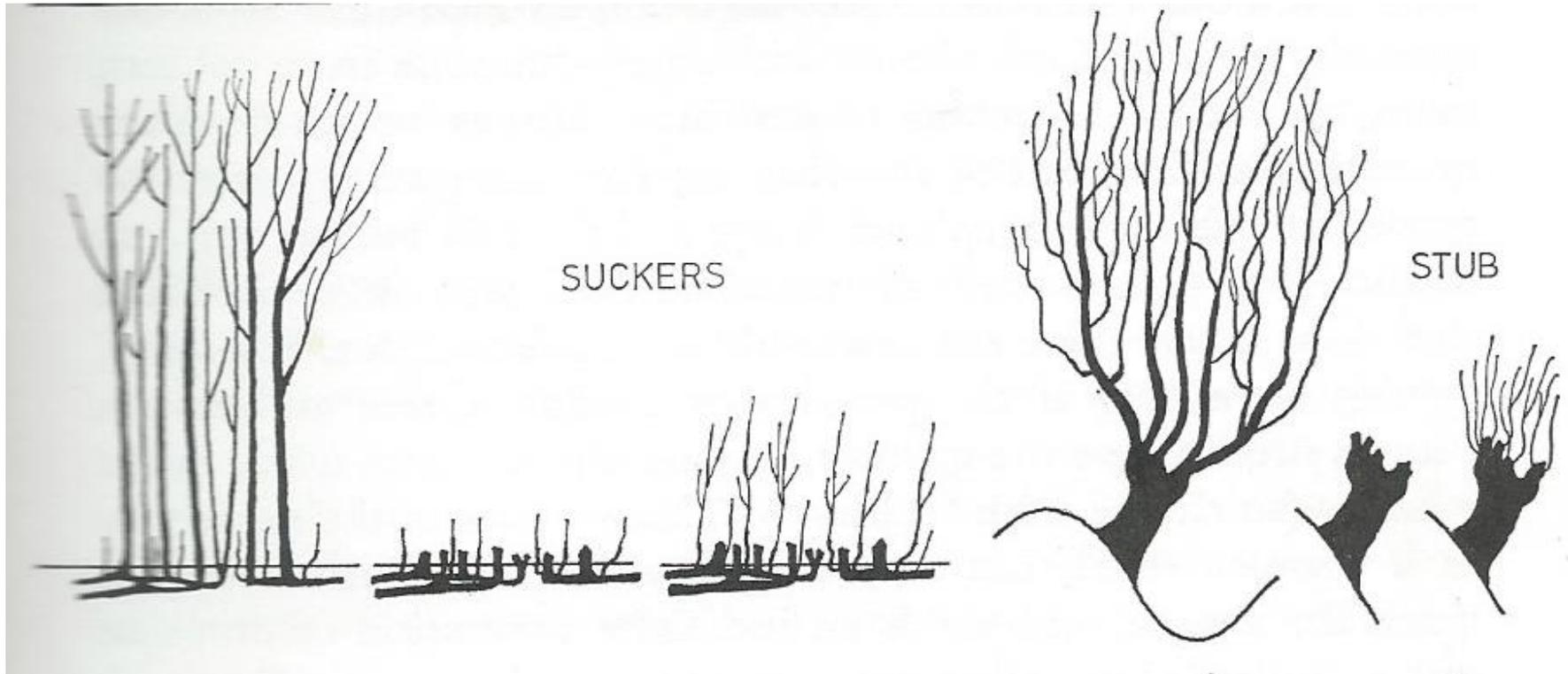
# Classic English sweet chestnut coppice



# Classic English lowland ash/hazel coppice with oak standards

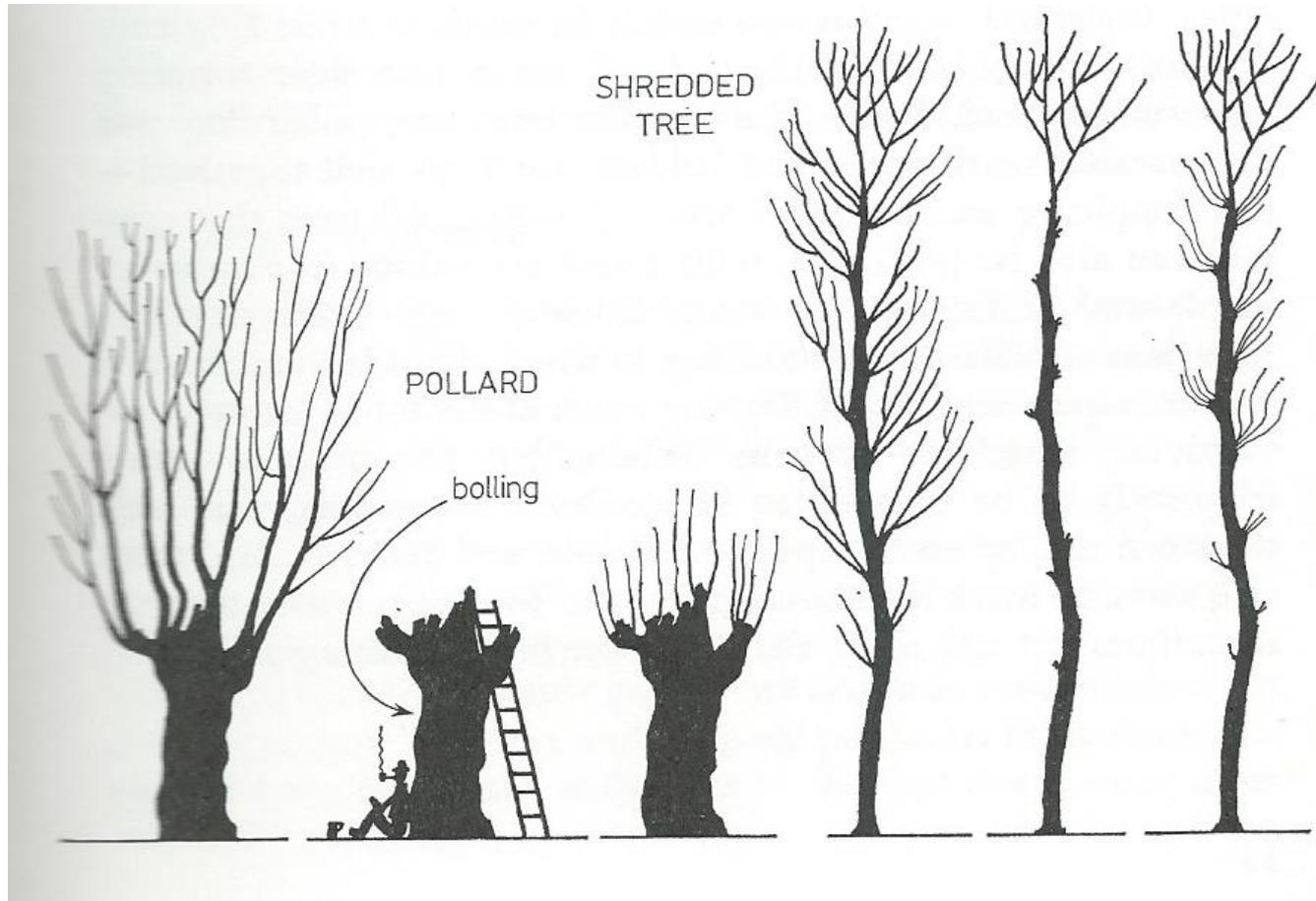


# Suckers & Stubs



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 3<sup>rd</sup>-4<sup>th</sup> C AD  
Oxford Ware



Medieval 13<sup>th</sup> C  
AD

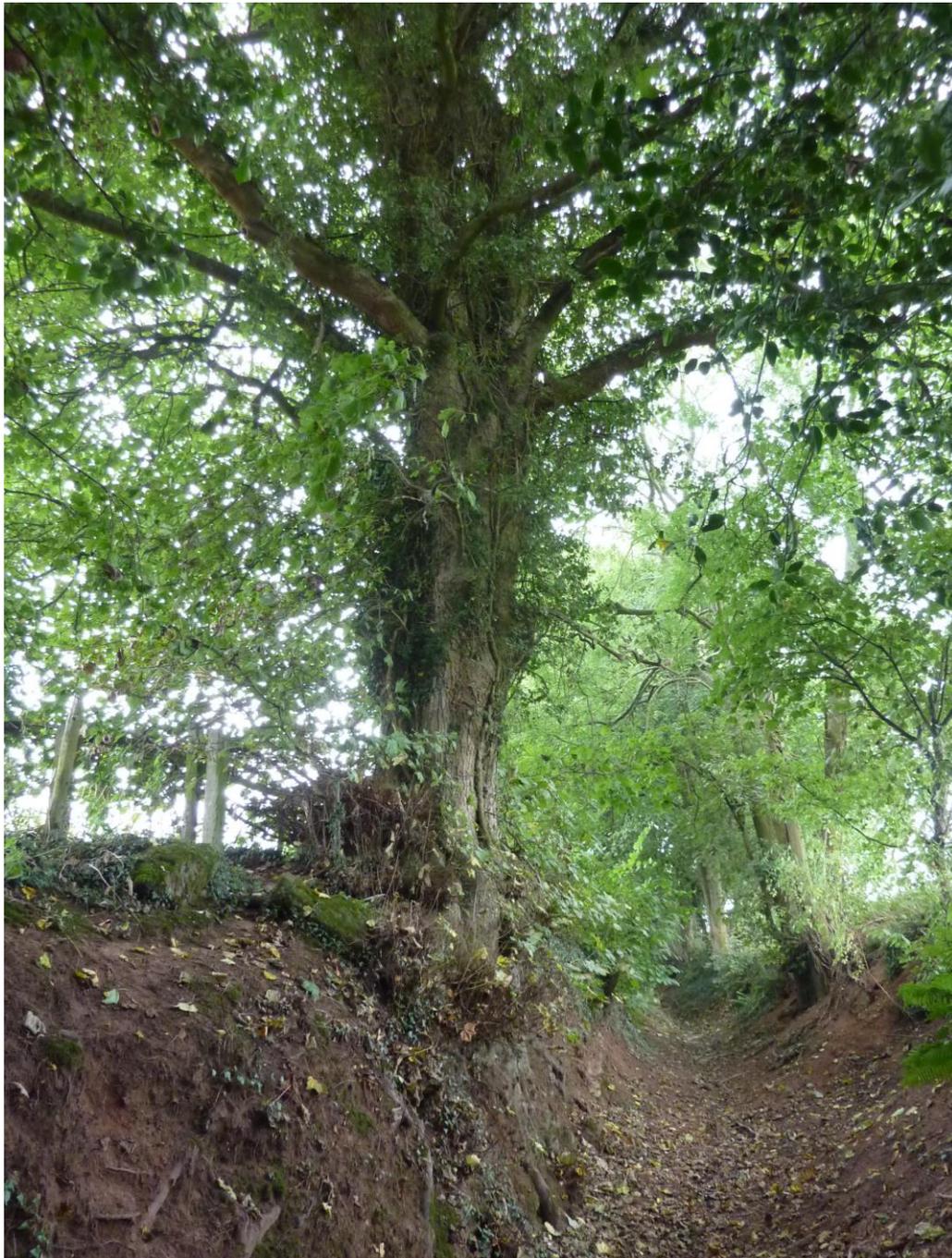
# Welshbury fort pollen analysis – preliminary results for the arboreal species, from 2 sample points straddling the Roman period pottery and OSL soil core dates

	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...

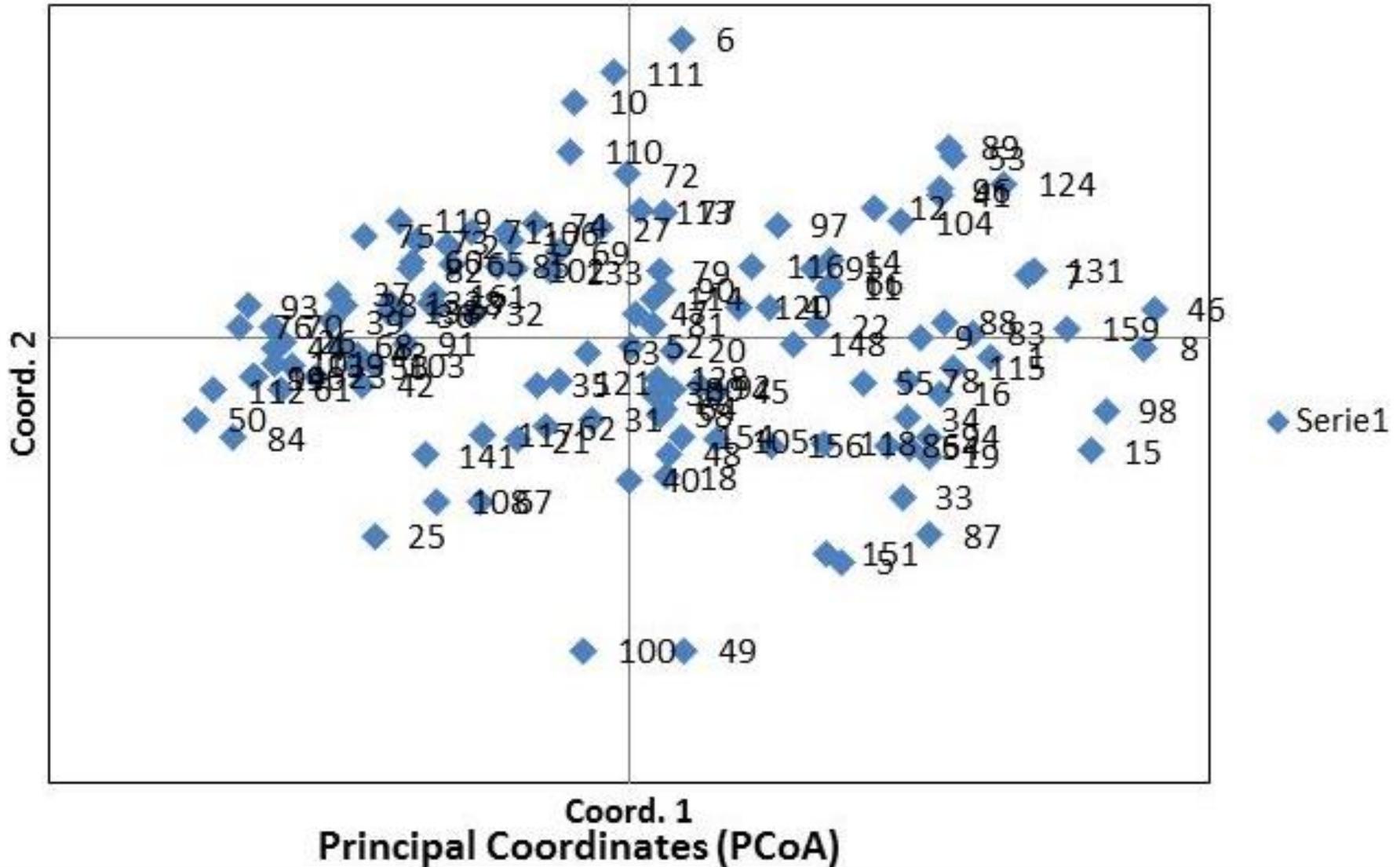


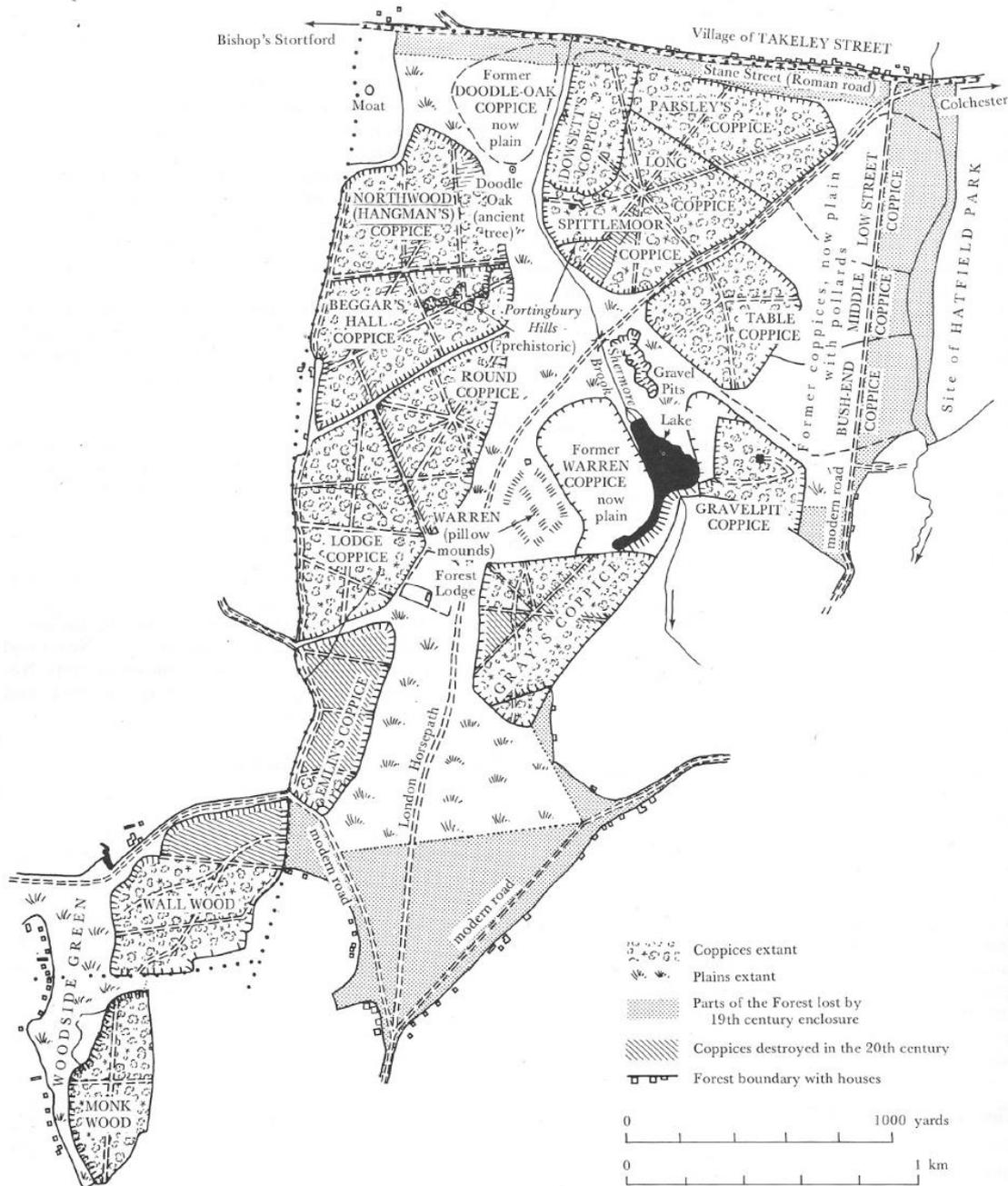
# Tangible cultural heritage

- **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...



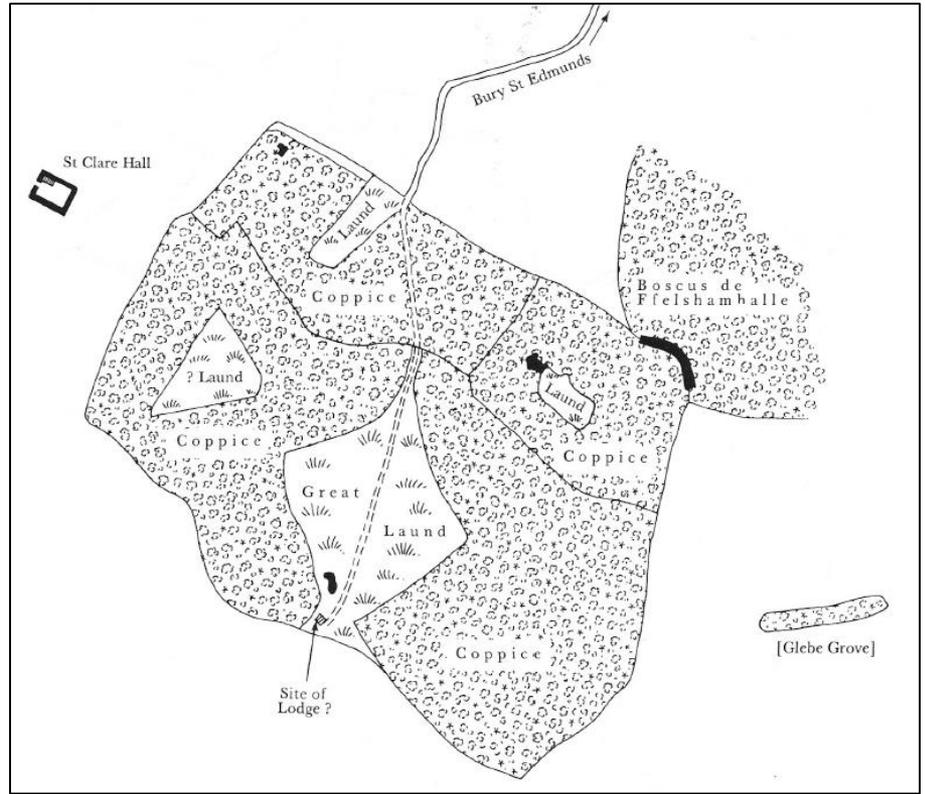
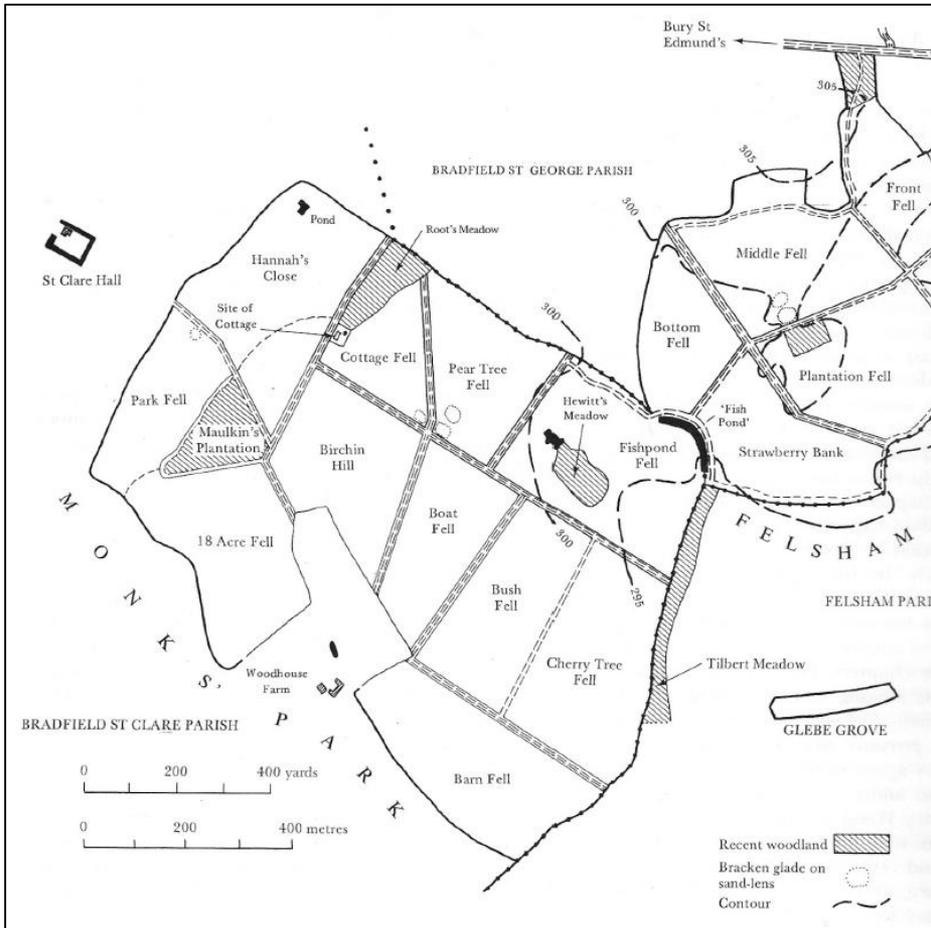


Hatfield Forest,  
Essex, England  
- a landscape  
scale coppice  
system



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





Bradfield Woods, Suffolk, England  
- wood scale pattern

# 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!

