History of woodland management: the Neolithic

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For historical times woodland management (pollarding/coppicing) is undisputed. But how far back in time can we recognise it…… in the Neolithic?

Hypothesis: branches in managed trees have better access to light and experience less competition than in unmanaged trees, resulting in accelerated growth, long straight branches (managed spurts) and increased wood production.
Method: analysis of diameter and age for unmanaged and managed wood. A model has been developed (**fig. 1**) and tested with modern-day data. Archaeological data are plotted in the reference graph of the taxon. More info on **hand-out*.**

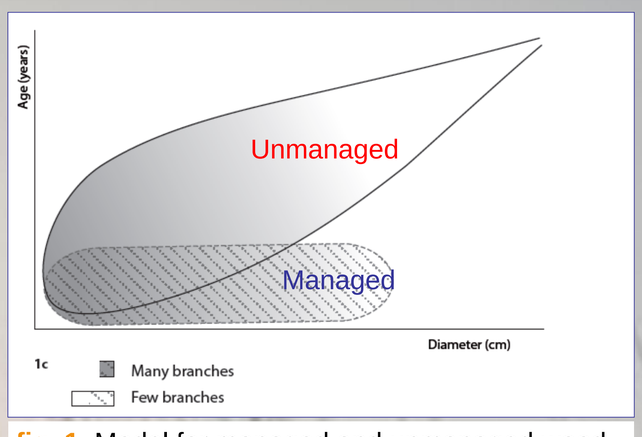

fig. 1 Model for managed and unmanaged wood

Fish traps from Late-Neolithic Emmeloord (NL, van Rijn*), willow (*Salix*), fig. 2

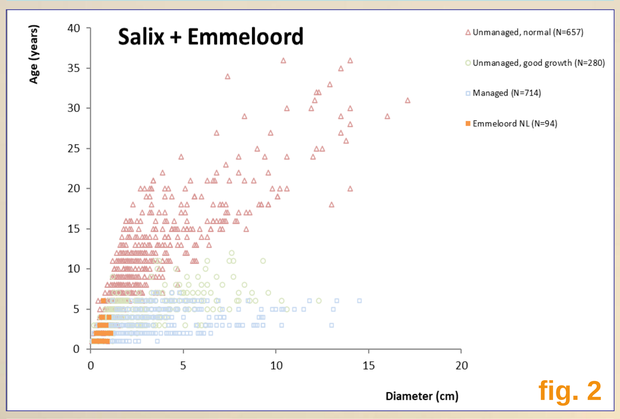

fig. 2

Results: young, thin branches plot in the overlap area between ‘managed’ and ‘unmanaged’ wood.
Conclusion: age/diameter analysis does not allow conclusions about management, but diameter selection is evident.

Structure from Late-Neolithic Ronæs skov (DK, Out*), hazel (*Corylus*), fig. 3

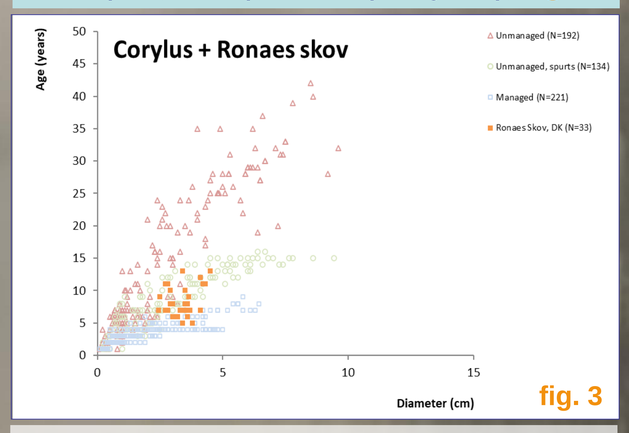

fig. 3

Results: long straight branches overlap with ‘unmanaged natural spurts’ and partly with ‘managed’.
Conclusion: age/diameter analysis shows use of fast-growing wood like natural spurts, no convincing sign of management.

Late-Neolithic settlement Strojanova voda (SLO, Čufar*), ash (*Fraxinus*), fig. 4

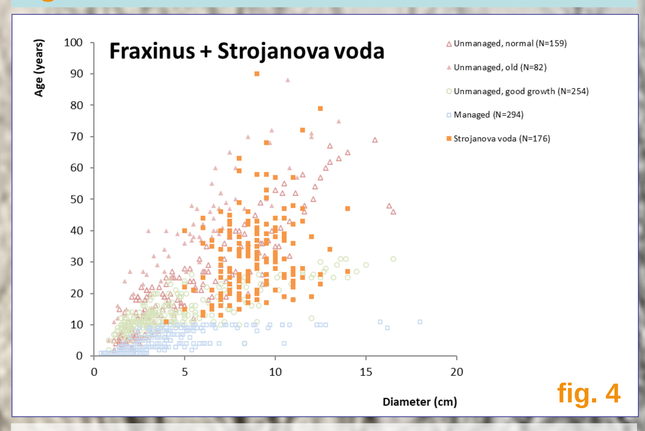

fig. 4

Results: archaeological data overlap with ‘unmanaged normal’ and ‘good growth’.
Conclusion: age/diameter analysis shows the use of unmanaged wood, no sign of management.

Late-Neolithic settlement La Draga (ES, López Bultó*) oak (*Quercus*), fig. 5

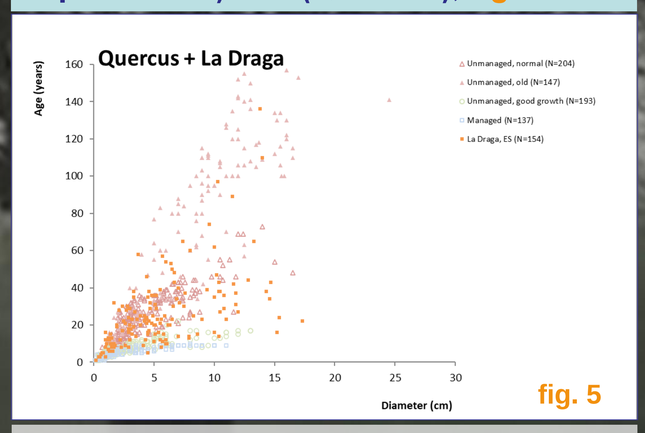

fig. 5

Results: archaeological data overlap with all unmanaged data; ‘old’, ‘normal’ and ‘good growth’.
Conclusion: age/diameter analysis shows use of all wood supply, no sign of management.

Conclusions: no evidence for management in the Neolithic: WHY?

Stone tools?

Stone tools damage the stools, so they don’t sprout again.

Site function?

Around new settlements/special activity sites management was not practiced.

Browsing by animals?

Animals like beavers and deer eat the managed spurts.

Adventitious management / no (need for) management?

Methodological aspects?

*** See the hand-out for extra information!**

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