
Fire use in the operational chain of prehistoric wooden tools

Anna Revedin^{*†}, Stefano Grimaldi², Silvia Florindi¹, Fabio Santaniello², and
Biancamaria Aranguren^{‡3}

¹Istituto Italiano di Preistoria e Protostoria – 50121 Florence, Italy, Italie

²Università degli Studi di Trento, Dipartimento di Lettere e Filosofia (unitn) – via T.Gar 14, 38122,
Trento, Italie

³Soprintendenza archeologia, belle arti e paesaggio per le province di Siena, Grosseto e Arezzo – Italie

Résumé

As is known, artifacts made from wood are very rarely encountered in Prehistoric deposits due to the low durability of this material. Emergency excavations in the spring of 2012, at Poggetti Vecchi, central Italy, brought to light an open-air, stratified Paleolithic site which was around 160 m² wide in total. The finds are radiometrically dated to the late middle Pleistocene. Hence, the site is particularly attractive, not only because it offers snapshots of the local environment at a time when early Neanderthals occupied the area but also for the recovering of wooden tools. Poggetti Vecchi's Unit 2 is to date the only late middle Pleistocene (MIS 7/6 transition) site in Europe that yielded remains of seven individuals of *Paleoloxodon antiquus* not accumulated by natural agents, associated with stone and boxwood implements.

The presence of a burnt film on some of the artifacts has led us to conjecture that, in addition to stone tools, fire was also used in the manufacture of the sticks, as documented in ethnography and hypothesized for prehistoric digging sticks. The experimental study was carried out to reconstruct the operational chain of this kind of tool. This study demonstrate that the use of fire was functional to the process of manufacture of the sticks featuring this morphology. The working of a very hard wood like *Buxus* is painstaking and requires a complicated operational chain, from the selection of the particular wood to its working employing stone tools and fire, with an important investment of time and effort.

Mots-Clés: late middle Pleistocene, wooden stick

*Intervenant

†Auteur correspondant: annarevedin@iipp.it

‡Auteur correspondant: aranguren@yahoo.it