

CHARCOAL HEARTH SITES AS HISTORICAL ARCHIVES: RESULTS FROM A MULTI-PROXY APPROACH AT POGGIO DI MONTIERI, TUSCANY (5th c. BC–19th c. AD).

Giovanni Mastrolonardo ^(a), Valentina Pescini ^(b), Carlo Montanari ^(b), Giacomo Certini ^(a)

^(a) Dipartimento di Scienze delle Produzioni Agroalimentari e dell’Ambiente (DISPAA)

^(b) Laboratorio di Archeologia e Storia Ambientale (LASA), Università di Genova

*Autore corrispondente: giovanni.mastrolonardo@unifi.it

One of the most widespread and old forest exploitation activities in Europe was charcoal production. Nowadays, the legacy of such an activity is a plethora of abandoned charcoal hearth sites (also called charcoal burning platforms or charcoal kiln/pit sites). The study of these sites is increasing over time and different disciplines, such as geography, pedology, history, anthracology, landscape ecology, archaeology, and forestry have analysed them with different aims. Indeed, charcoal hearth sites represent a unique archive of soil and land use, an exceptional unplanned experiment for studying the long-term interaction between biochar, soil and vegetation and reconstructing the former woodland composition and management. However, there is still a lack of common methods, being different depending on disciplines’ aims. As consequence, a part of the narrative is lost both in the explanation of historical processes dealing with charcoal production and in the interpretation of its environmental effects on present ecosystems.

Here, we propose a multi-proxy approach for studying soil in abandoned charcoal hearths: the Environmental Resource Archaeology (ERA) approach, which was employed at Poggio di Montieri (Tuscany, Italy), a hill strongly exploited during Middle Age (11th-14th c.) for silver production and then managed using a multiple land use systems based on pasture until 19th c.. ERA links pedology, archaeological survey, anthracological and dendro-anthracological analysis, and collection of historical texts and maps information on charcoal hearth sites. Such an approach provides a more realistic picture of the past use of woodland resources and of the historical dynamics influencing the present landscape.

Through the reconstruction of the historical landscape dynamics and past rural management, we suggest opportunities for a new approach to sustainable rural development and landscape management policies.

Parole chiave: charcoal kiln sites; multy-proxy approach; radiocarbon; historic forest management; pedology