

THUS SPOKE PAUSANIAS ? FUEL WOOD SELECTION IN ALPINE BURNT-OFFERING PLACES ¹

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Alpine burnt-offering places (*Brandopferplätze*) were for the first time defined as a separate group of finds in the 1960s. As generally accepted, these sites are defined by the following common traits: (1) their spatial distribution (Alps), (2) their temporal range (mainly Middle Bronze Age until Late Iron Age), the often massive occurrence of (3) calcinated animal bones and (4) intentionally destroyed artefacts (either pottery or metal objects). Since the beginnings of research on Alpine *Brandopferplätze*, parallels have been drawn between them and the burnt sacrifices in Greek antiquity, especially referring to the Olympic ash altar of Zeus as reported by Pausanias. Research during the last decades revealed that although the Alpine burnt-offering places were a ritual phenomenon clearly independent from the ancient Greek rites, both obviously shared some characteristics (as the deliberate selection of animal body parts, with heads and lower extremities dominating). Plant remains, however, never played a major role in these considerations of commonness or delimitation between the Alpine and the Greek rites, as only scarce information on plant-based offerings or on the fuel wood was available until recently. The written sources *e.g.* mention the exclusive use of (white) poplar wood.

In order to clarify the role of plants in the Alpine sacrificial rites, archaeobotanical analyses were carried out for nine burnt-offering places across the Alps (from west to east):

- Wartau, Ochsenberg (Switzerland, St. Gallen)
- Feldkirch, Altenstadt (Austria, Vorarlberg)
- Fließ, Pillerhöhe (Austria, Tyrol)
- Ganglegg, Hahnehütterbödele (Italy, Bozen-Südtirol/Bolzano-Alto Adige)
- Maneidtal/Val Maneda, Grubensee/Lago Gruben (Italy, Bozen-Südtirol/Bolzano-Alto Adige)
- Ulten/Ultimo, St. Walburg/S. Valburga (Italy, Bozen-Südtirol/Bolzano-Alto Adige)
- Schlern/Sciliar, Burgstall (Italy, Bozen-Südtirol/Bolzano-Alto Adige)
- St. Nikolai, Sölkpass (Austria, Styria)

In order to cover both the offerings and the used fuel wood, carbonised carpological remains and charcoal were identified. Fragments of amorphous food residues were analysed via SEM and chemical decomposition. For the identified charcoal, also dendrological and taphonomic parameters were collected such as growth ring width and radius, presence of wood-decaying fungi, damages resulting from carbonisation (radial cracks, vitrification features) and presence of compression wood in Gymnosperms. These data were used to gain information on the used wood qualities (thin branches/twigs *vs.* thick branches/trunks, deadwood *vs.* freshly hewn/dry-stored wood). All results were compared to published data on burnt offerings from eleven further cult sites in Austria and Northern Italy, in order to set the new data within a greater context.

The charcoal record resulted in a total of 27 woody plant taxa, corresponding to a minimum of 20 species. Reconstructed vegetation data from the respective locations, based on palynological analyses and actual/potential vegetation maps, were compared to the charcoal record of the nine Alpine sites. Surprisingly, the choice of woods used as fuel for the sacrificial pyres obviously was mainly guided by their immediate availability at the majority of investigated sites. Hints on taxon selection (*e.g.* for cultic reasons) were found in a comparatively small number of sites. Within the range of the Alps, only the site at Pfaffenhofen, Trappeleacker, and the cult building at Ganglegg, Hahnehütterbödele, give clear evidence on specific selection. In both cases the charcoal spectra clearly deviate from the reconstructed local vegetation. The used wood diameters were also much higher than usually found in burnt-offering sites. At least for the material from the area of the cult building at the Ganglegg site, this can be seen as a hint on burnt construction timber.

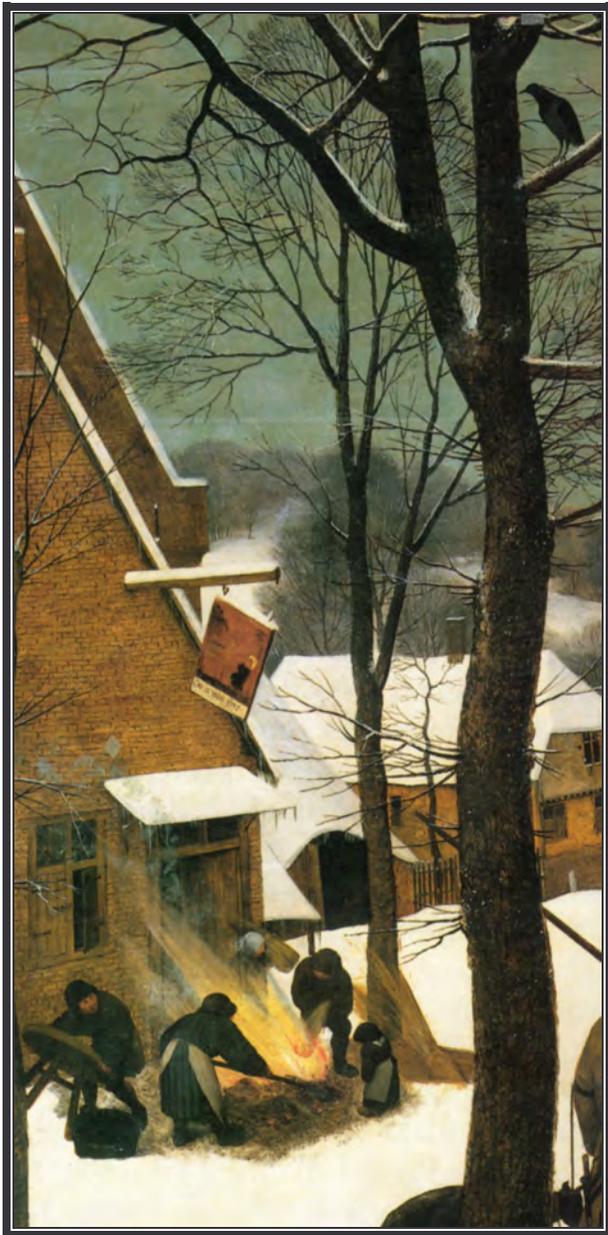
¹ Section 4, Oral

The wood qualities used are also rather consistent between most of the treated sites: of all 20 presented cult sites, data on wood quality is available for 17. Twelve of these show a clear dominance of partly decayed (gathered/dead) wood. At only three sites (Schwarzsee/Lago Nero, Trappeleacker, and the cult building at Hahnehütterbödele) the results point to deliberately stored or freshly hewn wood. Together with the data on cultivated plants, the charcoal results show that carbonised plant remains can contribute substantially to the comprehension of ritual activities in the Pre-Roman Alps, which obviously deviated in more than one way from the ancient written source.

Key-words: Alps, Bronze Age, Iron Age, Plant-based offerings, Fuel wood

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