Prospectors travelled the lands in search of technology was introduced into Europe. Washing site located in the low mountain ranges of the Inn Valley in Tyrol. We investigated a middle to late Bronze Age (1390-930 years cal. BC) slag-washing site near Schwaz, transect 5a (1997 excavation campaign). The thick grey slag layers and the remains of the wooden slag-washing device are visible. During the 5th millennium BC the new technology was introduced into Europe. Prospectors travelled the lands in search of profitable ore deposits, and immigrants were bringing with them the knowledge of metallurgy (Krause 2004). Archaeological evidence also indicates cultural influence from East Mediterranean civilizations on the inhabitants of Southeast, Southern and Central Europe.

The Alpine ore deposits of Schwaz were one of the most important sources for copper ore throughout Europe. They had been exploited since the early to middle Bronze Age (Goldenberg 1998, 2001). Traces of prehistoric mining are supplied plant material that proved an unexpected insight into Bronze Age mining history.

A total volume of 21.5 l (21.1 kg) of soil material was retrieved and the macroremains were extracted using flotation technique. The samples contained both carbonised and uncarbonised plant remains. The macroremains were in an excellent state of preservation due to the water saturated soil enriched with toxic salts of copper, arsenic, and antimony. Decomposition of the plant material had thus been slowed down significantly.

**Results**

The samples contained remains of wild and cultivated plants (Fig. 9). The identified wild plants characterised the site’s surrounding vegetation during middle and late Bronze Age. Parts of the area had been covered by zonal climax forest dominated by spruce, fir and beech, with sporadic occurrences of pine and larch. The local area had been partially cleared, the treeless patches indicated by plants as stinging nettle, black elder, and the two pioneer trees shrub tansy birth and willow.

Cultivated plants were represented by a carbonised canary of Panicum miliaceum L. (common millet). Having been an important cereal of the time, it was grown in the Alpine region during Bronze Age. P. miliaceum was usually consumed as millet gruel.

Among the other plant remains we found a seed of Nigella damascena L. (love-in-a-mist, wild fennel flower). It was identified by its characteristic features: a triangle-cuvate seed with tuberous surface, three longitudinal and several transversal ridges forming a conspicuous reticulum (Fig. 7a).

N. damascena is an annual mainly occurring on disturbed ground. Initially it was of East Mediterranean distribution, but today it is a common ruderal plant in many parts of the Mediterranean (Fig. 6). Outside this area N. damascena may form only ephemeral populations after escaping from cultivation. The time of its introduction in Central Europe is however unknown, as until now no archaeological data of Nigella damascena has been available. The N. damascena seed from the site near Schwaz is actually the oldest archaeological evidence in Central Europe.

Like Nigella sativa (black cumin), N. damascena is cultivated for its aromatic seeds. They are used as a condiment in bread, cheese, and sweets. Both species also are largely used as natural remedies in the Near and Middle East. They are used as a condiment in bread, cheese, and sweets. Both species also are largely used as natural remedies in the Near and Middle East. N. damascena had been brought to the Alps by the same routes.

Discussion

The Nigella damascena seed that has been retrieved from the Bronze Age slag-washing site near Schwaz is definitely an outstanding find. Considering the archaeological context of an ore processing site, the seed had obviously been brought to its place of discovery by someone involved in mining, ore processing, or metal trade. The retrieval of a Panicum canary from the same place raises questions about the deposition of the seeds. Would it part of a Bronze Age miner’s diet, favouring his miret gruel? Or had this ruderal plant been brought to the mining site by accident, just like the other weeds as Stellaria and Ceratitris? At any rate, chronology of N. damascena is clear evidence of a connection between Alpine copper ore mining and the Mediterranean. The first effectively indicates migration from Southern or South-eastern regions to Central Europe during middle to late Bronze Age.

Materials and Methods

We investigated a middle to late Bronze Age (1390-930 years cal. BC) slag-washing site located in the low mountain ranges of the Inn Valley in Tyrol, Austria. Excavation revealed a wooden flotation device, embedded in the slag-dump (Fig. 4). Samples were taken from inside the trench, and from its perimeter.