

Thirty thousand-year-old evidence of plant food processing

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Abstract

European Paleolithic subsistence is assumed to have been largely based on animal protein and fat, whereas evidence for plant consumption is rare. We present evidence of starch grains from various wild plants on the surfaces of grinding tools at the sites of Bilancino II (Italy), Kostenki 16–Ugryanka (Russia), and Pavlov VI (Czech Republic). The samples originate from a variety of geographical and environmental contexts, ranging from northeastern Europe to the central Mediterranean, and dated to the Mid-Upper Paleolithic (Gravettian and Gorodtsovian). The three sites suggest that vegetal food processing, and possibly the production of flour, was a common practice, widespread across Europe from at least ~30,000 y ago. It is likely that high energy content plant foods were available and were used as components of the food economy of these mobile hunter–gatherers.