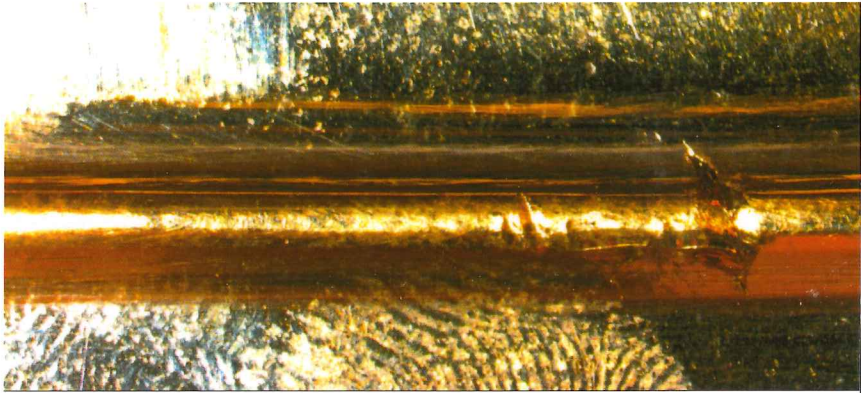




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Annelou van Gijn

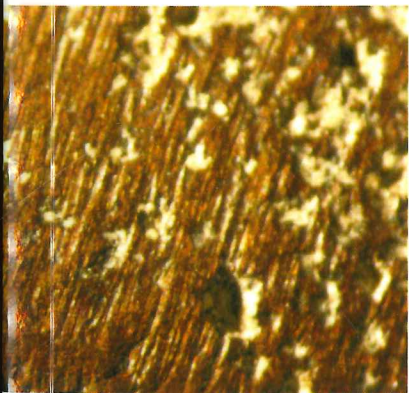
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program, including cereal harvesting in wild and domesticated fields in Israel conducted since 2005, some of the most debatable aspects are re-examined, including distinctions of plant ripeness, field conditions, harvesting techniques and harvesting intensity. Wear patterns observed on the archaeological tools exhibit variations on a synchronic and diachronic basis indicating a multi-variant outline of the process of becoming incipient agriculturalists. Wear patterns indicate that stems were cut in different ripeness stages throughout the period and alternative functional interpretations are proposed, where sickle blades were used exclusively for gathering the rachis but also for obtaining straw for constructional purposes. The analysis reconstructs various hafting arrangements, with the oldest example of the Natufian obliquely inserted blades and the innovative Beit Ta'amir harvesting knives. The data base is used to demonstrate the complex nature of the development of early Neolithic subsistence economy and the importance of use-wear analysis for supporting the reconstruction of socioeconomic developments in human evolution.

Comparing central western Europe Mesolithic and Neolithic plant processing microwear on flint tools

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The Holocene's global warming led to a fundamental change of the ecosystems exploited by man in Europe. Among this changes, there is an important increase in the vegetation cover, at the beginning of Mesolithic, during the Preboreal. Neolithic flint tool microwear analyses have shown that a significant share of the tool kit was used for plant processing. Recent functional researches on Mesolithic flint tool show similar results. We will

compare plant-processing wear-traces from these two main chrono-cultural stages of the Holocene. Along with the archaeobotanical studies, our paper presents some new approaches to the discussion about long-term evolution of the plant processing technical system during the Holocene. We will also discuss the scale of the technical changes that occurred during Neolithic transition.

Pièces esquillées, open question? The nature and the role of these elements in the Italian prehistoric lithic assemblages

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The aim of our work is to contribute to the debate over the nature and significance of pièces esquillées (splintered pieces) in prehistoric lithic industries. In the archaeological literature the presence of these types of elements is noted as being related to bipolar

on-anvil percussion or as being due to the use of these pieces as wedges. A series of lithic experiments was carried out in order to identify the formation process of the damaged edges and their characteristics. Data results were utilised as a basis for the techno-functional analysis of assemblages from Italian sites differing in geography and chronology (Gr. La Fabbrica (GR, Tuscany): Palaeolithic site; S.Stefano (AQ, Abruzzi) and Torre Sabea (LE, Apulia): Neolithics sites). The goal of our study was to identify the role of the pièces esquillées in the selected lithic industries, highlighting similarities or differences in the choices made by the different communities.

Learning from blind tests: Residues on grinding stones and flaked stone tools

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Blind tests are important tools in the methodological development of functional studies. Their use has been infrequent in spite of their undeniable potential: they highlight identification problems, gaps in the experimental reference library, and limits to functional inferences. The possibility to test interpretations provides a major advantage for the methodology of functional analysis and it is rare in other archaeological

research. It is therefore unfortunate that blind tests are often restricted to the early years of a new method. We argue that blind testing is relevant for ongoing methodological development. The rather limited use of blind tests may of course be due to stress surrounding a possible use or misuse of results to focus on an analyst's ability in identifying tool use. While blind tests are indeed useful in evaluating an apprentice's progress in recognising wear traces or residues, or for regularly testing professionals, their full interpretative potential particularly demands further methodological development of the techniques themselves. The results of a specific blind test for residues will be presented. The presented test was especially set up to evaluate the interpretative power of several techniques used in present-day residue studies. Two of the most common practices involve (1) examination of residues on the stone tool surfaces and mapping of residue locations, and (2) extraction of residues from the tool surface in order to analyse the residues more closely with a variety of optical and/or chemical techniques. Both practices can also be combined in a phased procedure. In order to increase the explanatory power, the test included both grinding stones and flaked stone tools, and it involved multiple analysts with varying levels of experience. However, the intention was not to examine the personal ability of the participants in correctly identifying tool use. We evaluate the potential of residue analysis to identify tool use and we focus in detail on the advantages and limitations of each technique involved. We reflect on the current state of blind test methodology and on how it can be further developed in the future.