

Standing Committee for the Humanities

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## From symbols to language. The archaeology of the origin of language and early diversification of languages (CRP 01- JA04)

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Cultural and linguistic identities of the neolithic and protohistoric populations of Europe and Near East

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## Abstract:

## *From symbols to language. The archaeology of the origin of language and early diversification of languages (Principal Investigator: Francesco D'Errico)*

The main goal of this project is to use the behavioural corollary of language and, in particular, its expression in material culture, to test hypotheses on the origin and diversification of language as well as to identify the ethnolinguistic groups of the Upper Palaeolithic in Europe. Through interdisciplinary research and with an international team we intend to identify the nature, chronology, and geography of the most ancient archaeological evidence for symbolic thinking. We equally investigate with which anatomical populations such evidence is associated and whether the latter point to a single or a multiple origin of language.

The second aim is to trace back the major steps of the diversification of languages in Europe during the Upper Palaeolithic through the analysis of symbolic objects functionally equivalent to language.

To achieve the first objective an international, interdisciplinary team, composed of archaeologists, anthropologists, radiometric dating specialists and linguists from Europe, Africa, Canada and Israel will investigate the possible oldest known archaeological evidences of symbolic thinking to assess their anthropic origin and evaluate their significance. All participating researchers have first hand experience in the analysis of these materials and are internationally known in their fields. Several have already published joint papers in international journals on the issue of the origin of symbolism and language seen from an archaeological and an anthropological perspective.

The evidence studied include all categories of potentially symbolic material culture produced by Neanderthals and early Anatomically Modern Humans (personal ornaments, decorated tools, used colorants, engraved bones and stones, burials, grave goods, systems of notations, musical instruments, complex bone technologies) from Europe, Africa and the Near East. This study combines the use of modern means of investigation (C14 AMS and TL dating, sem microscopy, image analysis, 3D reconstruction, chemical analysis etc.) and the use of experimental and actualistic comparative data. The reappraisal of old burials take into account the original documentation, the direct study of the human remains and the production of new radiometric datings. We focus on relevant and largely unpublished archaeological data from South African Middle Stone Age sites such Blombos and Klasies, which are supply the oldest evidence of symbol production. A new dating of this evidence has also been conducted in the frame of our project.

This way we intend to establish how, when, where and by which human groups symbolic cultures were created for the first time and whether they have a single or a multiple origin. This study will also substantially contribute to reevaluate Neanderthal cognitive abilities.

Ethnography suggests that among traditional societies personal ornaments may be representative of ethnolinguistic diversity. We are creating a comprehensive database of the different categories (272 shell species and 100 other types of objects) of personal ornaments used during the Upper Palaeolithic and Mesolithic (ca. 25,000 objects from 200 sites) and of all the C14 dates associated to this material. The statistical analysis of geographical and chronological variations in personal ornaments number, associations, type, decoration, size, manufacturing and suspension techniques will allow us to identify linguistic boundaries and follow their evolution, i.e. the diversification of languages in Europe, between 35 and 10 kya. Results should allow us to verify, on an independent basis, hypotheses put forward by historical linguists on the ancestor of the proto-Indo-European language.