

# Tiny ancient shells point to earliest fashion trend

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Shell beads newly unearthed from four sites in Morocco confirm early humans were consistently wearing and potentially trading symbolic jewellery as early as 80,000 years ago. These beads add significantly to similar finds dating back as far as 110,000 in Algeria, Morocco, Israel and South Africa, confirming these as the oldest form of personal ornaments. This crucial step towards modern culture is reported this week in the *Proceedings of the National Academy of Sciences (PNAS)*.

A team of researchers recovered 25 marine shell beads dating back to around 70,000 to 85,000 years ago from sites in Morocco, as part of the European Science Foundation EUROCORES programme 'Origin of Man, Language and Languages'. The shells have man-made holes through the centre and some show signs of [pigment](#) and prolonged wear, suggesting they were worn as jewellery.

Across all the locations shells were found from a similar time period from the Nassarius genus. That these shells were used similarly across so many sites suggests this was a cultural phenomenon, a shared tradition passed along through cultures over thousands of years. Several of the locations where shells have been found are so far inland that the shells must have been intentionally brought there.

"Either people went to sea and collected them, or more likely marine shell beads helped create and maintain exchange networks between coastal and inland peoples. This shows well-structured human culture that attributed meaning to these things," said Francesco d'Errico, lead

author and director of research at the French National Centre for Scientific Research (CNRS). "Organised networks would also assist trading of other items, as well as genetic and cultural exchange - so these shells help reveal the connections between cognition and culture."

For scientists, beadworks are not simply decoration, they also represents a specific technology that conveys information through a shared coded language. It indicates more advanced thinking and the development of modern cultural traits, giving clues to how such innovative behaviours might link to the spread of humans out of Africa.

"The early invention of the personal ornament is one of the most fascinating cultural experiments in human history," d'Errico continued. "The common element among such ornaments is that they transmit meaning to others. They convey an image of you that is not just your biological self."

Until recently the invention of personal ornaments was thought to coincide with the colonisation of Europe some 40,000 years ago, linking advanced cognitive capacity to early human dispersal. Yet this changed with the 2006 discovery of shell beads in Africa and the Near East dating back 35,000 years earlier, showing that symbolic thinking emerged more gradually through human evolution.

Curiously, shell beads disappear from the archaeological record in Africa and the Near East 70,000 years ago, along with other cultural innovations such as engravings on ochre slabs, and refined bone tools and projectile points. They reappear in different forms up to 30,000 years later, with personal ornaments simultaneously re-emerging in Africa and the Near East, and for the first time in Europe and Asia. This may reflect an entirely new and independent phase of population growth with previously unseen innovations allowing a more efficient exploitation of a wider variety of environments.

The temporary disappearance of cultural innovations could well be linked to population decreases during a long period of harsher climate conditions 60,000 to 73,000 years ago. This would have isolated populations, disrupting social and exchange networks.

This study was part of a broad network of 21 research projects and 44 individual research teams from 12 European countries forming the European Science Foundation EUROCORES programme 'Origin of Man, Language and Languages'(OMLL). This highly interdisciplinary collaborative action brought together scientists from a wide range of disciplines including genetics, linguistics, anthropology, archaeology, neurophysiology or cognitive sciences.

Dr Eva Hoogland, EUROCORES coordinator for the cognitive sciences at the European Science Foundation said: "This study presents a very good example of the groundbreaking results that can be gained from an interdisciplinary environment. Some questions, such as those concerning the interconnections between human cognition and culture, can only be addressed if scientists of varying backgrounds join forces. As witnessed by this study, this opens up new avenues for research when it happens on a structural basis, by leading scientists from across Europe."

Source: European Science Foundation ([news](#) : [web](#))

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