

# Exploring Change in Neanderthal Behavioural Complexity: An Innovative Approach to the Study of Neanderthal Behaviour



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Reconstructions of Roc de Marsal, St. Cesaire and La Ferrassie (top) (Dumiak 2006) and Kebara 2 burial (bottom) (Encyclopedia Britannica 2006).

## The Issue

Since their discovery 150 years ago, researchers have considered Neanderthals to have been largely incapable of behavioural change based on a long-standing perception that their 220,000 year long archaeological record is unchanging. Traditional approaches to the study of Neanderthal behaviour have acted to perpetuate this perception, with an absence of new approaches contributing to a stagnation of debates concerning Neanderthal behavioural complexity. Recent discoveries, including the Chatelperronian, have challenged researchers to reassess this issue.

## The Problem

Traditional approaches to the study of Neanderthal behavioural complexity are synchronic. Researchers have conflated the Neanderthal archaeological record into a single analytical unit (focusing on documenting whether Neanderthals were capable of specific behavioural traits at any time during their existence), fostering the deeply entrenched view that their behaviour was static (Binford 1972, 1985; Mellars 1996). Alternative approaches sensitive to identifying change are clearly needed.

## The Solution

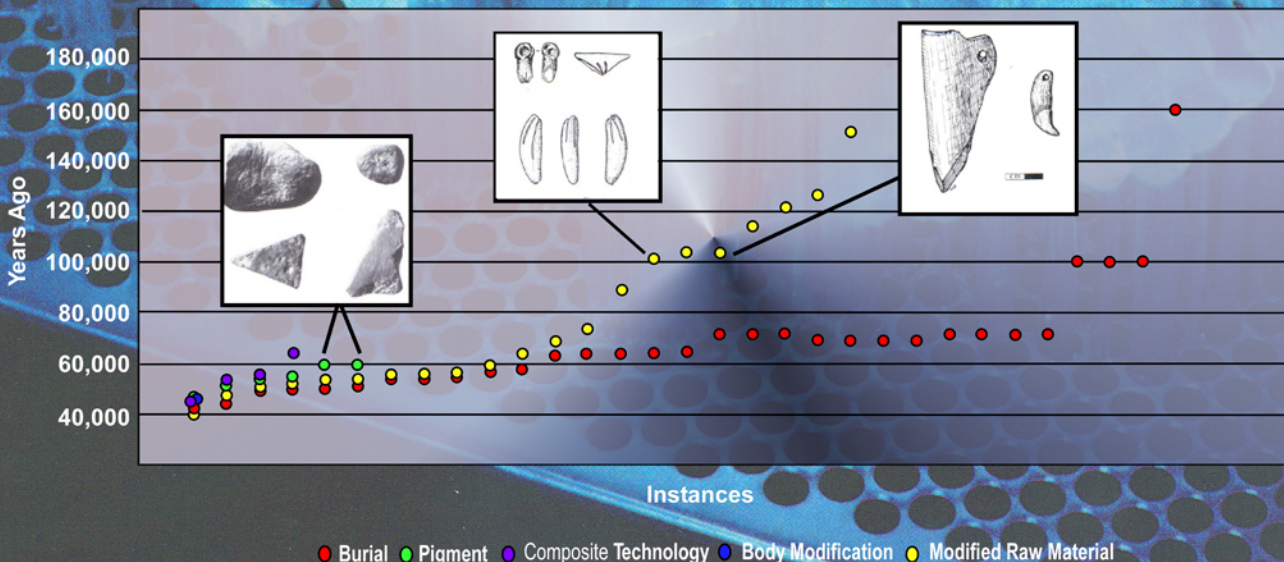
Diachronic approaches provide potential for a more sophisticated framework within which to examine change in Neanderthal behavioural complexity using archaeological proxies such as symbolic artefacts, faunal assemblages and technology. Analysis of the temporal appearance and distribution of such artefacts and assemblages provide the basis for identifying changes in Neanderthal behavioural complexity in terms of symbolism, faunal extraction and technology respectively. Although changes in technology and faunal extraction were examined in the wider study, only the results of the symbolic study are presented below to illustrate the potential of the approach.

## Preliminary Findings

In the graph below, 63 instances of symbolic behaviour, consisting of 31 burial features (most with grave goods) and 400 individual artefacts, are graphed according to their category (burial, pigment, composite technology, body modification, modified raw material) and time of appearance in the archaeological record. When graphed in a temporal sequence, a clear pattern emerges indicating that both the number of instances and the number of symbolic manifestations increase in quantity through time. This suggests that Neanderthal behavioural complexity may have been changing and increasing in complexity through time.

## Where to from Here

With further refinement of the diachronic methods and detailed investigation of the authenticity and context of artefacts, this approach has the potential to furnish new understandings of the archaeological data currently available relating to Neanderthal behavioural capacities. Results also provide a fresh synthesis of data with which to add to the debate concerning the late appearance of the Chatelperronian.



**Acknowledgements**  
Robyn Jenkins, Antje Noll

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