

Art and the Brain: How Imagery Makes Us Human
McDonald Institute for Archaeological Research, University of Cambridge
7th-8th December 2015

The aim of this conference is to encourage an interdisciplinary discussion between archaeologists, neurophysiologists and artists to develop current understandings and interpretations of non-verbal communication in prehistory. An important component of being human is how we see, including how the brain organises these perceptions and how this is coordinated with the rest of the body. Great advances in research, regarding the cognition of vision, have been achieved in recent years; we now know that particular visual stimuli relate to specific parts of the brain. These advances have created a platform for a new understanding of prehistoric visual imagery since, as anatomically modern humans (*Homo sapiens*) we share the same neurophysiological capacities as our ancestors.

Through this interdisciplinary approach, we can begin to understand how anatomically modern humans communicated non-verbally between communities following their arrival in Europe around 40,000 years ago and in Africa over 100,000 years ago. What is now considered to be some of the oldest examples of art created by the first modern humans in Europe and Africa utilises the creation of visual narratives that follow the rules of how the brain processes visual stimuli. This collaboration will involve an interactive participation of disciplines to explore how this happened and investigate what it means to be human, through contemporary understanding of the shared capacities of the human brain and the ways humans have benefitted from these capacities over tens of thousands of years.

Sessions:

Colour

Some of the earliest expressions of visual communication utilise colour; from a possible form of body modification to the creation of the first abstract and representational images of the world *Homo sapiens* inhabited. These images, predominantly found in caves, brought to life different creatures, landscapes and ideas, especially under illumination. As a result, we also see the use of luminance as a contributing aesthetic quality to the conjunction of light and colour.

Line

The line, the basic component of all forms, also appears very early in the development of *Homo sapiens* visual communication. The line not only represents a marked distance from one point to another but can be used as a conglomeration of different points and their connections which, in turn,

creates the compositions that become the familiar abstract and representational images (e.g. animals). The accumulation and arrangement of lines, today viewed by us as abstract design, could have carried any number of messages and ideas in the past, the deciphering of which may be extremely difficult today.

Embodiment and Fragmentation

Embodiment and fragmentation, as a form of visual communication, can be traced to the first use of colour and clothing. Here, however, we are interested in the creation and destruction of early human figurines produced by populations as they expanded north, out of Africa and the Near East, to the cold climates of Europe. These first artists can be traced via the appearance of figurines and their focus upon their own body.