

Alan Mann

## Evolution of the genus *Homo* and the origins of 'Humanness'

The earliest fossil evidence suggestive of members of our genus, *Homo*, comes from East Africa and is dated to around 2.5 million years ago. By 2-1.8 million years ago, several species of early *Homo* coexisted in East Africa with one of them, *Homo erectus*, apparently ancestral to later members of the genus, including modern humans. The first stone tools are associated with early *Homo* and this has prompted discussions relating this to increasing brain size as well as to hunting. Some have suggested that the neural pathways responsible for the ability to make tools of arbitrary shape also may be involved in the origins of language. *Homo erectus* was the first hominin to spread out of Africa, where the human lineage originated, and into Eurasia.

There is debate about whether the movement out of Africa resulted in geographically isolated local populations that eventually speciated into regional species like the European Neandertals or whether they maintained genetic contact and remained a single species. These differing views have produced a variety of models that attempt to place the archaeological and fossil data in a reasonable context. Also contributing data are the results of genetic comparisons of living human populations as well as the limited sample of genetic material extracted from European Neandertal fossil bones. Majority opinion currently favors the direct ancestors of living humans, *Homo sapiens*, evolving in sub-Saharan Africa, spreading out from there and eventually moving into Europe to witness or assist in the extinction of the Neandertals, *Homo neanderthalensis*, as well as moving into other parts of Eurasia to confront contemporary hominin species who also subsequently disappear. The reasons often given for the success of *Homo sapiens* is that a number of critical modern human attributes such as language, symbolism, the use of ornaments, and the mastery of sophisticated tool kits of stone, bone and antler implements, appeared in Africa with *Homo sapiens* origins. In contrast are those scholars who view all of these regional populations as a single species, *Homo sapiens*, all equally capable of a range of modern human behaviors and who may have contributed significant genetic materials to the modern human gene pool. At the present time, however, archaeological evidence is not able to determine when and where the most commonly used defining qualities of modern humans, language and symbolic representation, emerged and whether these features are the unique attributes of modern human-like peoples.