



**Figure 2 | Sexual images in early *Homo sapiens* European art.** **a**, A 'Venus' figurine from Willendorf, Austria, 105 millimetres in height and dated to about 28,000 years ago. Note the similarities to the older figurine from Hohle Fels, described by Conard<sup>1</sup> and shown in Figure 1. **b**, Female 'vulvar' symbols carved on a limestone block from the La Ferrassie rock shelter, southwest France, dating to about 35,000 years ago. **c**, A phallus, carved from the horn core of a bison, from the Blanchard rock shelter, southwest France; the carving is about 36,000 years old and is 250 millimetres long.

well-known 'Venus' figurines recovered from a range of sites stretching from the Pyrenees into southern Russia, and associated with the subsequent Gravettian toolmaking cultures. These figurines are dated to between about 29,000 and 25,000 years ago, and most of them show a similar exaggeration of the sexual characteristics and a curious downplaying of the arms, legs and heads<sup>2,7</sup> (Fig. 2a). The extension of this obsession with female characteristics back to at least 35,000 years ago should perhaps not come as any surprise, because explicit representations of female 'vulvar' symbols had already been recorded from a number of early Aurignacian sites in western France, all incised on blocks of limestone, and again dated back to at least 35,000–36,000 years ago<sup>2</sup> (Fig. 2b). Interestingly, this sexual-symbolism aspect of the art is effectively symmetrical, as the same sites have yielded equally explicit phallic representations, carved out of bone, ivory or (in one case) the horn core of a bison (Fig. 2c). The possibility that these could represent 'girls' toys' (as one first-year student once hesitantly expressed it) should perhaps not be dismissed.

Whichever way one views these representations, it is clear that the sexually symbolic dimension in European (and indeed worldwide) art has a long ancestry in the evolution of our species. To some, this has often been taken as a possible reflection of fertility beliefs, designed to ensure the continuity of life in both the human and animal realms<sup>8</sup>. The archaeologist and ethnographer André Leroi-Gourhan interpreted the whole of European cave art during the Upper Palaeolithic, roughly 40,000 to 15,000 years ago, in terms of a dualistic, 'structuralist' reflection of the opposition of the sexes<sup>8</sup>. Other workers, such as David Lewis-Williams, have seen the same symbols as possible elements in shamanistic rituals and beliefs<sup>9</sup>.

From an evolutionary perspective, of course, the most striking feature is the sudden eruption of all these forms of artistic or other

explicitly symbolic creations with the arrival of the earliest *H. sapiens* populations in Europe, and the shortly ensuing demise of the pre-existing Neanderthal populations of the continent<sup>3</sup>. We know that these modern populations came into Europe from Africa, where they had originated much earlier and where early forms of symbolic expression have been found as abstract, geometrical designs engraved on pieces of red iron oxide extending back to at least 75,000, and possibly 95,000, years ago<sup>10</sup>. But the advent of fully representational, 'figurative' art seems at present to be a European phenomenon, without any documented parallels in Africa or elsewhere earlier than about 30,000 years ago<sup>11</sup>. How far this 'symbolic explosion' associated with the origins and dispersal of our species reflects a major, mutation-driven reorganization in the cognitive capacities of the human brain — perhaps associated with a similar leap forward in the complexity of language — remains a fascinating and contentious issue<sup>12,13</sup>. ■

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## 50 YEARS AGO

A recent issue of the *Australian Museum Magazine* is devoted almost entirely to New Guinea ... The physical geography is described by D. F. McMichael and the geology by G. A. U. Stanley. J. S. Womersley discusses the vegetation of the island, while other contributors provide details about the mammals, birds, fishes and insects. Until the early 1930's it was thought that the central region of New Guinea was uninhabited and uninhabitable. Since that time it has become known that about 600,000 people live in the Australian territories alone ... This issue is also of interest for its reference to the discovery of a rare animal in Australia, the potoroo (*Potorous tridactylus*). This animal, which is related to the rat-kangaroos, is now rare in New South Wales, not having been recorded in the State since 1913. It is still common in Tasmania. The specimen obtained by the Museum was killed by a dog near Gosford, New South Wales.  
From *Nature* 16 May 1959.

## 100 YEARS AGO

In the April number of *Das Blaue Buch* Dr. T. Zell discusses the question whether animals take advantage of experience and become cleverer than their parents, the question being answered in the affirmative. Among numerous other instances mentioned by the author, reference may be made to the following. From early times it has been noticed that vultures have learnt to accompany armies in the field, for the sake of the prospective feast after a battle. Killer-whales accompany whaling-vessels, and gulls do the same ... Birds and quadrupeds have learnt to take no notice of railway trains, as have horses of motors, and nowadays many fewer birds immolate themselves by flying against telegraph-wires than was formerly the case ... Sheep-dogs, again, know by experience that it is only the members of their masters' flocks that it is their business to collect.  
From *Nature* 13 May 1909.

50 & 100 YEARS AGO