



100 YEARS AGO

The motion for the second reading of the Sea Fisheries Bill in the House of Commons, on Monday, resulted in a lively discussion. The Bill prohibits the sale of flatfish below a specified size, and its rejection was moved on the grounds that it would not have the effect of preventing the destruction of immature fish, or of increasing the supply of fish. In the course of discussion, an honourable member said that the whole of the trouble arose from the institution of a number of committees composed of farmers, lawyers and captains of the horse, foot, and artillery, who knew little of fishing, and who ventilated strange theories and supported them with portentous and irrelevant statistics. This remark was used as an argument against the Bill, but it may also be taken to mean that if fishery matters were controlled by scientific men familiar with the natural history of the sea, and questions concerning fisheries were referred to marine biologists, recommendations would be made upon which reasonable regulations might be based. From *Nature* 3 May 1900.

50 YEARS AGO

The possibility of presenting television pictures of an adequate brightness on the large-size screen used in cinemas has been under development in Great Britain for some years. On April 29, the opportunity was taken by Messrs. Cinema-Television, Ltd., to demonstrate the state of this development by showing the B.B.C. Cup Final television programme to a selected audience of about a thousand persons, including television experts from some fifteen countries. The normal programme radiated from the Alexandra Palace transmitter was received in the neighbourhood of the Odeon Theatre, Penge, where the demonstration was given. The received signals were conveyed to special equipment placed in the auditorium of the theatre at a distance of some 12 metres from the screen. A very bright image of the television picture, about 16 cm. x 13 cm. in size, was formed on a special cathode-ray tube operating from a high-tension supply of 50 kilovolts. The optical projection system comprised a spherical mirror and plastic correcting plate by means of which the picture was thrown on to the theatre screen... In spite of the fact that, owing to weather conditions, the daylight at Wembley was on the dull side, the demonstration was very satisfactory. From *Nature* 6 May 1950.

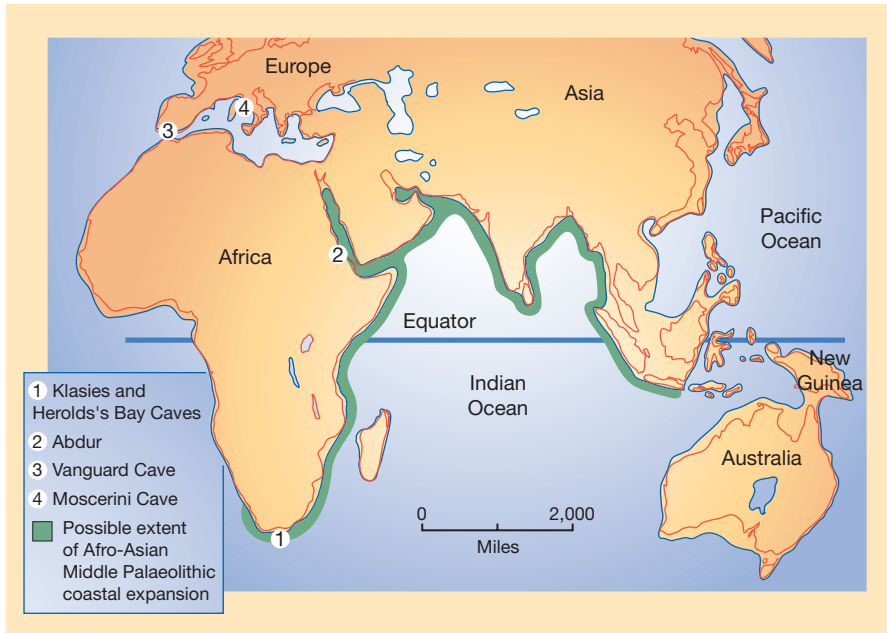


Figure 2 The Old World as it might have looked during the Late Pleistocene, around 65,000 years ago. At that time, large amounts of sea water were locked up in polar ice sheets, so sea levels were lower and more land was exposed (present-day shorelines are in red). Known coastal sites of human occupation during the Middle Palaeolithic are marked; Abdur is the site investigated by Walter *et al.*⁴ and discussed here. A putative route for coastal migration of modern humans from Africa to Asia is shown in green. (Redrawn after ref. 10.)

are more likely to have remained exposed. This is particularly true where the land has been uplifted by geological processes, as is the case around parts of the Red Sea.

Walter *et al.*⁴ recovered Middle Stone Age (African Middle Palaeolithic) artefacts, such as hand axes and obsidian flakes, from strata in a raised fossil reef near Abdur in Eritrea (Fig. 3). Geomorphological considerations and correlation with other Red Sea localities suggest that the site dates to the last interglacial. Walter and colleagues confirmed this age with uranium-series dates that, on average, gave a figure of about 125,000 years. Who made the artefacts is unknown. But there are fossils of near-modern or modern *H. sapiens* from around this time^{1,2} in neighbouring regions such as Ethiopia (Omo Kibish), Sudan (Singa), Kenya (Guomde) and Israel (Skhul and Qafzeh). So it is likely that the people concerned were early members of our species.

Klein¹ has argued that the main dispersal of modern humans from Africa probably occurred only after the beginning of the Later Stone Age (equivalent to the Eurasian Upper Palaeolithic). For him, that event heralds the beginning of modern cognitive and adaptive capabilities. According to this view, then, the presence of modern humans in the Levant during the last interglacial, represented by the burials at Skhul and Qafzeh, was only a brief geographical extension of the species from Africa. The real dispersal of *Homo sapiens* was through that region, but did not occur until the Upper Palaeolithic, perhaps 45,000 years ago.

Other workers have favoured an earlier, Middle Palaeolithic, beginning for dispersals. Kingdon⁷ proposed that Middle Palaeolithic people left Africa through the Levant and reached southeast Asia by 90,000 years ago. There they adapted to coastal conditions, and developed a boat- or raft-building ability that enabled them both to return to Africa and to move southwards to Australia. By contrast, Lahr and Foley² suggest in their 'multiple dispersals model' that a more direct route from Africa to Arabia and further east could have been taken before 50,000 years ago, perhaps using the coast. However, subsequent dispersals to the north, evidence for which comes from early Upper Palaeolithic artefacts found in countries such as Egypt, Israel and Bulgaria, would have followed the Levantine route.

The findings of Walter *et al.*⁴, together with new data from Australia, allow further elaboration of these possibilities. There is increasing archaeological evidence⁸ that Australia was colonized (by boat, because no landbridges existed during the Pleistocene) before 50,000 years ago — that is, before the proliferation of Later Stone Age and Upper Palaeolithic features such as blade tools and art. Moreover, a modern-human burial site from southeastern Australia, associated with the symbolic use of red ochre, has been re-dated to about 60,000 years ago⁹. This implies that at least one dispersal of modern humans from Africa must have occurred during the Middle Palaeolithic, and that characteristic