

## Palaeoanthropology

# All human life is there

EVEN the most hard-bitten hominid-fossil watchers were impressed by the specimens unveiled last week at the Commonwealth Institute in London. Centrepiece of the exhibition "The Human Story" is a sequence of candidates as human forefathers ranging from *Aegyptopithecus* and *Ramapithecus* through the australopithecines to *Homo* in his/her various forms.



An australopithecine, of the same type as Lucy, the skeleton found in Ethiopia by US anthropologist Don Johanson.

The skulls are boldly displayed so that the visitor can touch them, with mirrors beneath allowing examination of the teeth in a way that would make a dentist feel at home. Pride of place among the fossil exhibits goes to the 1.6 million-year-old *Homo erectus* skeleton WT15000, discovered last year by Kamoya Kimeu near Lake Turkana in Kenya and described in *Nature* in August (316, 788-792; 1985). Kimeu was on hand at the opening of the exhibition to explain that the skeleton on display is a replica — very convincing right down to the Kenya Museum accession numbers in black ink — and that the original is locked away in the Kenya National Museum, safe from the hazards of air travel and public exposure. Back in the museum too are more teeth, eventually destined to rejoin the rest of WT15000.

Another famous hominid fossil, "Lucy", is present in skeletal form and also as one of the life-size figures, reconstructed on the basis of the latest anatomical and cultural data. Lucy, or at least a

female *Australopithecus afarensis* from around 3.2 million years ago, is to be seen reaching up, hypothetically and bipedally, to gather fruit from a bush. It was a hard life for *A. afarensis*, it has been deduced from their fruit-eating ways and tendency to die off at an average age of 22, hence the wasted appearance of the reconstructed figure.

By the time the human line gets to 100,000 years ago, the reconstructed figure looks far meatier in the form of Neanderthal man. Not the clumsy colossus that has stubbornly survived in popular fiction for many years, but a character looking not unlike a modern-day middle-weight boxer, though one who has had a long career of mismatches.

The first question asked by many visitors to the exhibition seems to be "But

when did they become us?", and the exhibits and catalogue give a good guide to the various possible answers. But the question more likely to be in the visitor's mind at the end of the exhibition is "Has it finished?". After the impressive series of fossils and figures, and stone tools you can play with, comes a dash through recorded history and a bank of flickering television screens, with all four UK channels in quadruplicate or more, apparently representing the present. And then some conspicuously blank walls — the future is unknown, you see . . .

The exhibition owes much to sponsorship by IBM and in February it will take to the road, with stays in Amsterdam, Stockholm, Bremen, Paris and thence to Africa for display in Ghana, Nigeria, Senegal and Kenya.

Charles Wenz

"The Human Story" is at the Commonwealth Institute until 23 February 1985. Details from: Commonwealth Institute, Kensington High Street, London W8 6NQ, UK.

## French education

# Stoking the university fires

JEAN-PIERRE Chevènement, French minister of education, plans to double the number of potential university entrants in France by the year 2000.

This could make France an extraordinary place in which to be educated in the 21st century, for already there are a million students in French universities, compared with, for example, only 175,000 university students in Britain. In Britain, fewer than 5 per cent of the population are considered likely to benefit from university education; but in France, by the end of the century, 55 per cent of 17-year-olds could have the coveted "baccalaureat" or "bac" that would give them the right to enter university.

Whether they will enter university, however, is another question. Chevènement's plans include extending the bac — or bacs, as there are half-a-dozen different specializations — into more career-oriented and technical directions. Politically, he wishes to extend the opportunity of gaining the cachet of a "bac" to the largest possible number of children (at present only a third attempt it, a fraction he would like to increase to four-fifths by the year 2000); educationally, he wants to see a work-force better oriented to the demands of 21st century technology. Thus by 2000, the plan is that many who succeed at the bac will not be going to university, although they will have the right, but straight into work, in a new, high-technology France.

Hence if enough work exists in 2000 (at present many unemployed French school-leavers spend a year coasting in university), the universities need not be much larger by that date. But Chevènement plans to increase the number of qualified school leavers to cope with the changing teaching

load, and a figure of 4,000 new teachers a year has been mooted. Some 400 new schools are also to be built.

Further, Chevènement is to loosen the stranglehold of mathematics on French education, much to the disgust of the mathematicians who consider that mathematical ability is essentially a test of intelligence. Thus the volume of mathematics teaching even in the coveted bac-C (mathematics and physics) is to decrease, and in other bacs it will become less abstract and oriented more to the needs of the central disciplines. (For example, in the "management" bac, bac-B1, mathematics will emphasize statistics and economic calculations.)

Among French scientists, reaction is mixed to the proposal to "dilute" mathematics. Biologists favour the move, claiming that many potential biologists are swamped in school by the mathematical demands of the science bacs; but physicists and mathematicians fear a fall in student quality. Chevènement, for his part, has no desire for the number of potential French Fields Medallists to fall.

Chevènement's planned school reforms cannot take effect before autumn 1986, however, by which time a right-wing government will probably be in power. Nevertheless, the minister's plans may not be forgotten. Many of his educational reforms, including bringing back the Marseillaise and improving discipline in primary schools, have gone down better on the right than the left. And Chevènement, once the darling of the left, has made no secret of the fact that he would accept an offer to continue his work, even under a right-wing prime minister. An imaginative conservative government might just agree.

Robert Walgate