

CORRESPONDENCE

Flower power

SIR — It is to be hoped that the outcome of Indian production of paper from water hyacinths, *Eichornia crassipes* (Mert.) Solms (*E. speciosa* Kunth.), reported by Jayaraman¹, will be more successful economically than previous attempts to use the plant's fibre in this way.

His statement that "all efforts so far have been directed at eradication of the weed" overlooks some interesting developments elsewhere. It is only in slow-moving waterways that the species becomes a pest. Soon after its introduction into Hong Kong and South China, in the first decade of this century², came cultivation, primarily as a feed for pigs, taking full advantage of the rapid multiplication of the plant. It is grown in South China today, in ponds and flooded fields, as a feed for livestock and poultry³. Burnt, it can be a useful manure, because of its high potash content.

Where it is plentiful, and not required for other purposes, straw is probably preferable as a source of paper, because of its higher yield⁴.

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1. Jayaraman, K.S. *Nature* 291, 183 (1981).
2. Dunn, S.T. & Tutcher, W.J. *Flora of Kwangtung and Hongkong (China)* 6, 7, 281 (Bulletin of Miscellaneous Information, Kew; 1912).
3. *Iconographia Cormophytorum Sinicorum* Vol. 5 (Academia Sinica, Peking, 1976).
4. *Bull. Imp. Inst.* 24, 267 (1926).

Wages of war

SIR — It would be a disservice to the scientific community if the assertions of R.G.S. Bidwell (*Nature* 11 February, p.452) were allowed to stand unrepudiated. This author clearly sees a direct link between the imposition of sanctions and the waging of war, and appears to welcome the opportunity of contributing to it. He refers disparagingly to the activities of pacifists in the Great Wars, not realizing that their efforts in the First World Disarmament Conference were within a hair's breadth of creating conditions which would make war an impossibility. Sanctions, on the other hand, can do nothing but increase the likelihood of war, because they only serve to nourish suspicions of malevolent intent on both sides. Never have Soviet scientists that I have spoken to expressed any desire to destroy us, as Bidwell is close to suggesting.

No scientist working for the benefit of humanity can surely wish to be associated with the notion that science is "ours", not "theirs", because we have paid for it. If the fruits of science are not made available to others, then it is of no earthly use. If the science we do in our laboratories is considered unsuitable for widespread application, it is better left undone. What we pay for is the prestige of making a discovery, the benefit to our industry of detailed technical knowledge and experience, and the chance to contribute to mutual understanding between nations, but not for the right to deny this knowledge to the rest of the scientific community.

Lack of understanding through insufficient information gives rise to some of the grossest iniquities in the world today. The eclipse by the Polish situation of the tragic events taking place in El Salvador is a direct result of restriction of flow of information. It is

important that scientists should avoid involvement in such a practice, and refrain from endorsing the dubious and hypocritical moral judgements of our cold-war strategists.

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Myth or fact?

SIR — Is the creation versus evolution argument really irreconcilable?

To those who cling to every word of the Bible nothing can be said. But surely the Old Testament and other ancient texts are the repository of ancient knowledge. Perhaps the creation is a distant "folk memory" — reinterpreted by succeeding generations — of events that actually took place at a time (15,000 yr BP?) beyond documented recall.

The geological evidence is that marked changes in the environment took place at the Pleistocene/Holocene boundary. Could the ancient accounts of the "beginning of the world" be telling us that the changes at this time were more profound than the geologists normally consider? Looking at ancient legends about the beginning of the world it is striking how the same motifs occur time and again: darkness over the face of the oceans; little or no dry land; the low heavens (the firmament) yet to be separated from the earth; a creator or creators usually of remarkably human kind.

Mythologies come down to us in garbled form; and modern science knows less than it cares to admit. So the split on this issue is difficult to understand.

There is a geological theory with a great deal of evidence in its favour that, in outline at least, can explain the drastic world changes alluded to in ancient legend. But for some reason it has little or no currency: for this reason one hesitates to elaborate . . .

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SIR — It seems to me that creationist science is at least as good as the evolutionary theology propagated by Jon Marks (*Nature* 28 January, p.276). To take his points in order: the Hebrew used in *Leviticus* 11: 19 and translated "bird" clearly denotes all warm blooded flying animals since the distinction between birds and mammals was unknown when it was written; Jesus did not ascend to paradise (or heaven) 3 days later as Marks claims, He ascended to heaven bodily at Pentecost 40 days later; what Jesus meant in Luke 23:43 was that both the thief and He would that day be in heaven in their spirits or souls. What Origen and Maimonides thought about the Bible is not pertinent; they were human and could err. There is no doubt, however, that Jesus Christ believed in a 6-day creation, a literal Adam, a real Garden of Eden, an actual world-wide flood and a real whale that swallowed and regurgitated Jonah.

As for the morality of the Bible, neither the rape of Dinah nor the seduction of Lot by his daughters is held up as a good thing. Rather they are consequences of the fall of Man, just as Dr Marks' cynical unbelief is. The execution of Sisera was surely justified for war crimes; he had oppressed Israel harshly for 20 years (*Judges* 4:3). We do not know all the details but no doubt there was something particularly appropriate that he should be killed by a woman with a tent peg. If Dr

Marks read his Bible with understanding he would realize that *Ecclesiastes* 3:9 is a perfect description of the utility of man without God, and one that fits Dr Marks himself.

It may be that someone who knows nothing but the 750,000 species of insects is a colossal bore, but someone who knows that, understands every language known to man, comprehends the whole of mathematics, physics and even anthropology would probably consider Dr Marks and his petulant fist waving at his Creator a little boring.

That chimpanzees and humans should be so similar genetically merely shows their Designer recognized a good thing when He saw it.

For Dr Marks to accuse creationists of fraud is a little thick. For whose benefit was the Piltwood fraud perpetrated? What about Haeckel's faked photographs showing that embryology recapitulates phylogeny?

As for obscurantism; the word means the denying of inquiry. Is it not the evolutionists who hold that the theory of evolution is unchallengeable and must be accepted as fact?

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Culture conscious

SIR — In a recent issue (*Nature* 294, 42; 1981) Adrienne Zihlman reviewed Sarah Hrdy's *The Woman That Never Evolved* and my own *The Evolution of Love*.

Professor Zihlman concluded that "Both of these books join the growing stacks of sociobiological attempts to integrate genes and human behaviour. They fail by ignoring the intervening levels. . ." and that "the book that has not yet been written is one that . . . integrates culture and biology". In fact my second chapter contains an elaboration of the interaction of cultural and biological evolution, and my view that cultural evolution has probably "initiated or promoted in humans a far greater number of new behavioural trends than biological evolution has". My index shows that cultural evolution is discussed or mentioned significantly on at least 46 pages of the total of 291 pages of text.

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SIR — In her review of my book *The Woman That Never Evolved*, Adrienne Zihlman quotes me out of context and implies that I state women's sexual activity is "assertive and temporarily insatiable". But I was referring to a monkey in oestrus, and was contrasting such monkeys with human females. I wrote: ". . . what earthly relevance does the conduct of this monkey have for understanding her culture-bearing cousin, whose solicitations are sedate, self-conscious, often elaborate in their subtlety and indirection?" (p.160).

My point was to show that cultural practices such as *purdah* and clitoridectomy, institutions such as marriage, and perhaps especially the myths and values that are a very real component of each human individual, have profound effects on the sexual behaviour of women (pp.179–187).

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