

With the overwhelming public opposition to any animal tests on cosmetics this seems a reasonable compromise.

*Donal Crawford
British Union for the Abolition
of Vivisection
London*

Debra MacKenzie implies that I told her that only 4365 animals were used in Europe to test cosmetic ingredients in 1990, out of a total of 276 674 animals used to test products other than pharmaceuticals. That is not correct. The figures she refers to are for laboratory animal procedures related to cosmetic ingredients and products conducted in Great Britain alone.

We cannot know the total number of animals used in tests conducted on cosmetics and toiletries either in Europe as a whole or even within the European Community, since, unlike Great Britain, Northern Ireland and the Netherlands, other European countries do not yet publish detailed annual statistics on animal experimentation. I would estimate that the total number of animals used in cosmetics testing in Europe each year is currently running at around 10 000, but I know that others estimate the number to be as high as 40 000.

Whatever the real number is, it is too high, and all possible steps should be taken to reduce it to zero as quickly as possible—by replacing animal tests with relevant and reliable non-animal alternatives—without increasing the risks to which workers and consumers are exposed or damaging our successful European cosmetics companies.

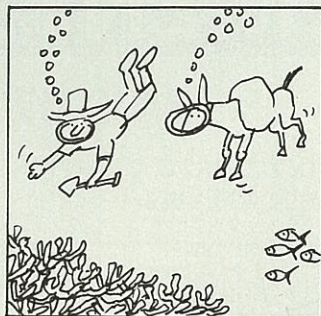
*Michael Balls
Fund for the Replacement of
Animals in Medical
Experiments
Nottingham*

Golden idea

I was intrigued by the story "Bacterial gold" (*New Scientist*, Science, 2 May).

Herewith a quote from the chapter "Golden Reef" in my novel, *Imperial Earth* (Gollancz, 1975).

"It had been known for centuries that some marine organisms were able to extract, for the benefit of their own internal economies, elements present in sea water



in unbelievably small proportions. If sponges and oysters and similar lowly creatures could perform such feats of chemical engineering with iodine or vanadium, the biologists of the 2100s had argued, why could they not be taught to do the same trick with more valuable elements?

"And so, by heroic feats of gene-manipulation, several species of coral had been persuaded to become gold miners; the most successful were able to replace almost 10 per cent of their limestone skeletons with the precious metal..."

*Arthur C. Clarke
Colombo, Sri Lanka*

Roads that whisper

The mention of pervious asphalt (*Thistle Diary*, 16 May) is not the first time that the advantages of this material have been mentioned in your columns. It is already being extensively used on other European roads. The Dutch call it "whispering asphalt" and British travellers frequently return from France amazed at the splash-free road surfaces they have encountered on the *autoroutes*.

Our failure to make good use of it is all the stranger because it is a British development deriving from the friction course developed many years ago by the Air Ministry to prevent aquaplaning on military runways.

Tam Dalyell lists the reasons advanced by the Department of Transport for not using it. All are seemingly logical. But do they stand up? The present method of providing a non-skid surface on motorways is by rolling large bitumen-coated chippings into rolled asphalt whilst it is still hot and receptive. This a chancy process very much at the

mercy of the weather. Transport economists frequently assume that this material has a life of 20 years. But on very heavily trafficked roads few last for more than 14 years and engineers know that in many cases much earlier treatment is necessary. So do ordinary motorists using our motorways.

Pervious asphalt is much easier to lag with greater surety of success. On very heavily trafficked roads it should remain serviceable for at least eight years, longer on other roads. Its cost cannot be much greater than the large coated chippings currently used.

*Ray Millard
Basingstoke, Hampshire*

Hungry for data

Feedback says of the fast-food stall prevented after legal action by McDonald's from selling products with the prefix "Mc" or "Mac" (2 May): "McChinese's argument that the prefix was also used by



Apple Computer for its products was dismissed, presumably on the grounds that people don't normally eat computers."

Perhaps not. But they do take bytes out of them.
*Barry Rigal
London*

Boring

I am fascinated by the philosophical logic put forward by your correspondents on the grandfather paradox (*Letters*, 16 May). Logical it may be, but useful it is not. The only interest I have ever had in time travel is that it might enable us to see how our ancestors lived; I now find that the only logical way this would be possible is for me to be able to visit any of my different grandfathers (I thought I only had two) who are living such

totally different existences that some of them have probably been murdered in childhood by delinquent, time-wandering descendants. The subject has thereby lost all interest for me.

*John Wheeler
Stockton-on-Tees, Cleveland*

And I swallowed

Having lived all my adult life in Africa I have a very healthy respect for snakes and have always tried to give them a wide berth. However, a couple of weeks ago I rushed round the corner of the verandah headlong into an eyeball-to-eyeball confrontation with a 2-metre spitting cobra.

Probably as shocked as was I, it reared up and I jammed on my brakes and looked, for what felt like an eternity, into its little, black, passionless, eyes. And knew, with certainty, that my last moment had come.

I opened my mouth to scream, not in the hope that anyone would hear me, but purely as a reflex. And it spat. In a stream of bitter tasting liquid that hit the back of my mouth. Again without thinking, I swallowed.

Feeling that within a few minutes I must be dead I grabbed the garden rake that was to hand to take the wretched creature with me. It died. And I am very much alive and not in any way the worse for drinking a large gulp of cobra venom.

Please will someone tell me why?

*Anna Merz
Isiolo, Kenya*

Correction: At the end of Mary Ann Elston's articles "Caught in the crossfire of the animal wars" and "Victorian values and animal rights" (23 May) there is a note about the source of funding of Elston's research. This contains an inaccuracy: the Science Policy Study Group mentioned here is actually the Science Policy Support Group (SPSG).

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