Sir-Bruce Denness has recently confessed that he "cannot find a way around" the argument that, "if God was smart enough to create The System, he was certainly smart enough to cover his tracks, that is he could have 'implanted' the geological [and] astronomical record so that what many of us now see as a scientifically pre-Creation history is merely a divine artefact." Let me reassure him, and any others similarly distressed, that they are neither the first, nor the most luminous, scientists to be flummoxed by this devious conjecture.

Such arguments are dismissed, not by supplying contradictory evidence, but by observing that there can be none. Such diabolical speculations simply define conflicting data out of existence. Science gives them short shrift, not because they are demonstrably wrong, but because they are scientifically vacuous: (1) they are unfalsifiable, because they fail to state how the
world we observe would be different if it were not a divine artefact; (2) they have no explanatory power, as they cower from the question of why this particular divine artefact, out of the infinite alternatives; (3) they are predictively useless, as the putative divinity of the Universe's origin does nothing to restrict its sphere of future possibilities; and (4) they are radically unparsimonious, because they impose an extraordinary burden of unverifiable assumption, while conferring no predictive utility in return. Science refuses to believe in miracles, because believing in miracles is scientifically useless, not because they can be scientifically refuted.

The fact that science has chosen falsifiability, parsimony and predictive and explanatory utility as its precepts, and therefore cannot offer proof or data for them, does not mean that, in Denness's words, "science would also appear to be a religion". Rather, it is precisely the adoption of these precepts (instead of others) that fundamentally distinguishes the scientific enterprise from the religious experience, and from most other aspects of daily life.

James Kirchner
Energy and Resources Group, University of California, Berkeley, California 94720, USA

The comment above was a response to the following, which appeared in Nature 336: 614 (15 December 1988)

## Divine artefact

Sir-If God was smart enough to create The System, he was certainly smart enough to cover his tracks, that is he could have 'implanted' the geological astronomical record so that what many of us now see as a scientifically pre-Creation history is merely a divine artefact.
I say this as a non-creationist scientist who nevertheless cannot find a way around this argument. Can you? If not, then science would also appear to be a religion: we simply believe there was no relatively recent Creation but cannot proveit. Bruce Denness Bureau of Applied Science Ltd, $42 a$ High Street,
Newport, Isle of Wight PO30 1SE, UK

