

CULTURE AND COSMOS

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Editorial Nicholas Campion

In her recent book *Comets, Popular Culture and the Birth of Modern Cosmology*, Sara Schechner Genuth pointed out that Edmund Halley's speculation on the possibility of the end of the world resulting from a comet collision was satirised by Swift and Fielding (see the review by Maureen Perkins on page 66). Thus astronomy fed satirical literature.

Myths of destruction from the sky are as old as recorded history. One of our earliest literary epics is the Sumerian *Lamentation over the Destruction of Ur*. Dating from over four thousand years ago it tells how Inanna, the goddess represented by the planet Venus, withdrew her favour from the city of Abraham, and how she allowed Enlil, the storm god, to send the Gutians to destroy her people. Two thousand years later St. John wrote his *Revelation*, laying out his vision of the cosmic battle between Christ and Satan. At around the same time in Rome, in his *De Natura Rerum*, Pliny repeated the Babylonian prophecy that when all the seven planets joined in Capricorn the world would be destroyed by a great deluge, and when they met in Cancer it would be consumed by fire.

Another two thousand years on, three of the highest grossing Hollywood blockbusters in 1996-1998 were *Independence Day*, *Deep Impact* and *Armageddon*. The first was an update on the now familiar twentieth century theme of alien invasion, while the latter two fictionalised the 1990s fear that the world might be hit by a rogue asteroid or comet and that humanity, like the dinosaurs, might be wiped out in the process. Both these stories have been fuelled by contemporary science and technology in a manner which may tell us something about the relationship between astronomy and culture. A recent survey of popular magazine articles on the prospect of cosmic cataclysm include *Quest for Knowledge* (April 1997), *Astronomy* (May 1998), *Sky and Telescope* (June 1998), *Astronomy Now* (September 1998) and *Scientific American* (November 1998). Some, such as *Sky and Telescope*, explicitly draw on the popular interest encouraged and exploited by the Hollywood studios. Modern popular interest in cosmic collision can be dated back to Immanuel Velikovsky's *Worlds in Collision* (1950). Velikovsky, though, remains a fringe figure. A second wave of publishing, initiated by books such as Victor Clube and Bill Napier's *The Cosmic Serpent*

(1982), noted by Carlos Trenary on page 17 of this issue, did much to stimulate astronomers' interest in the problem. However, it was not until the 1990s that the possibility of a catastrophic asteroid or comet collision became a general topic for scientific and popular discourse. The coincidence between this development and the dramatic end to fear of nuclear annihilation after 1989 is noticeable, and raises the question as to whether the prospect of a collision is less an imminent possibility than merely the latest version of the myth of the future heavenly judgement. The link with nuclear armageddon was actually made explicit by supporters of the 'Star Wars' technology in the USA, who discovered the asteroid threat as an argument for maintaining spending on their now redundant defences against Soviet missiles. The threat is a real one, of course as the impact in Greenland on 9 December 1997 confirmed. However, the reality of the threat of a hit on a major city is impossible to compute: it may be infinitesimal. It may happen tomorrow but it may not happen for millions of years. In the meantime astronomers and geologists have discovered a whole new area of research: *Scientific American* (Jeffrey C. Wynn and Eugene M. Shoemaker, 'The Day the Sands Caught Fire', November 1998, pp. 37-51) concerns itself with craters which were first described by Harry St. John Philby in 1932, but not surveyed until 1994. Historians have now joined the debate. Until recently the subject of ancient collisions was confined to fringe archaeology, to theorising on the destruction of Atlantis, for example. However, the papers on the first academic conference on the subject are now available.¹ Concern with cosmic collisions brings two distinct cultural trends together. On the one hand there is science's ability to provide technological answers to a perceived threat. But on the other is humanity's persistent need to believe in myths and legends. Indeed, the cultural consequence of the success of space flight and our ability to track small bodies in the solar system has been the creation of new mythologies. Given the tide of books claiming evidence of alien visitation or ancient celestial catastrophes, a valid question for students of cultural astronomy is what psychological function such myths might serve.

¹ *Proceedings of the Second SIS Cambridge Conference*, 'Natural Catastrophes During Bronze Age Civilisations: Archaeological, geological, astronomical and cultural perspectives', edited by Benny J. Peiser, Trevor Palmer and Mark E. Bailey (British Archaeological Reports, Oxford, 1998).

