

text of nuclear winter, the strategic and political thinking here is not particularly new and is now a bit outdated. But this is to be expected when the political world is changing so rapidly and the fundamental concepts of strategic policy are being questioned everywhere.

Sagan and Turco are deeply troubled by the danger presented by our large nuclear stockpiles. Although they claim that they arrived at their policy prescriptions only after being traumatized by the results of their scientific studies of the long-term environmental consequences of nuclear war, the book reads as though it was the other way around — that it was the nuclear arsenals that worried them (quite understandably), the scien-

tific quest being to find out why. The scientific arguments are therefore less convincing than they might otherwise have been.

The basic thesis that Sagan and Turco set out should present them with a dilemma. If indeed the possibility of nuclear winter makes the prospect of an all-out nuclear war even worse to behold, then would more data and analyses demonstrating that the climatic effects would be much less severe, make nuclear war more acceptable? □

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Myths in creation

Richard Mabey

The Naming of the Beasts: Natural History in the Medieval Bestiary. By Wilma George and Brunson Yapp. Duckworth: 1991. Pp.231. £42.

THE bestiary is, strictly, a mediaeval phenomenon, a combination of natural description and moral example that had its last echo in the Victorian 'parables of flowers'. But the lives — real and imagined — of animals continue to provide a rich array of raw material on which humans can project their fears and ambitions. The Surrey puma, weeping seal pups, piratical magpies, headlice, rotweillers . . . our own anthology of totems and scapegoats is still flourishing nearly a thousand years after it was being reported that the basilisk could kill by its looks alone.

The perennial fascination of bestiaries lies in the gap between the fabled creatures and their natural prototypes. What sparked off the process of mythologization? Was it the result of our seemingly deep need to construct hierarchies out of natural creation, or simply due to ignorance and bad observation? Was the widespread bestiary account of lion cubs being stillborn and remaining dead for three days until the male lion breathed life into them a veiled compliment to the king of beasts?

George and Yapp provide half of the answers to these questions. They set out to evaluate how much of the information in bestiaries was based on real natural history. Most of the 40 or so illustrated manuscripts that survive date from between the twelfth and fourteenth cen-

turies (with a handful outside these limits) and were produced in British monasteries for internal use. Their authors and illustrators often had little choice but to rely on earlier, overseas accounts, and so exotic creatures and their fabulous habits were repeatedly copied and rehearsed in much the same way as the formal figuring on icons. Few English monks, for instance, would have set eyes on the sea eagle *Aquila*, yet this bird occurs in all of the bestiaries as an odd amalgam of precise observation and poignant legend. It has unfeathered legs, catches fish (these attributes distinguish



Lupus, the wolf, creeping towards a flock of sheep, tail between its legs.

it from the golden eagle) and can spot its prey from up high. But as it ages, its eyesight grows dim, and it must rejuvenate itself by flying close to the Sun, then having to plunge into a pool to put out its burning wings.

There are many more outlandish stories told in bestiaries: lynxes whose urine turns to stone; partridges partial to buggery; hedgehogs climbing vines to scump grapes on their spines. But George and Yapp's detailed and sympathetic dissection soon dispels any suspicion that the accounts are simply superstitious ramblings. In the later manuscripts especially, many of the illustrations are beginning to look like first-

hand field drawings. The spoonbill in a Cambridge bestiary of 1450 is, bizarrely, sitting in a tree; but it is a lively and unmistakable sketch of a bird that the monks could well have watched in the local fens. The authors might also have known wolves. There are many remarkably accurate descriptions of the short breeding cycle and hunting techniques of these animals, although there is no mention of their social pack life.

The description of the pelican's life-history (of which few north-European writers could have had first-hand knowledge) suggests how anecdote and rumour could have been turned into myth. One image in almost all the illustrations and texts about *Pelicanus* is that of parent birds dripping blood from their sides into the mouths of their chicks — the symbolic 'pelican in its piety' of later Christian art. Contemporary myths explain this as an act of penitence by the birds for having once killed their chicks in anger. But George and Yapp suggest that the idea may have originated from misunderstood observations of pelicans feeding their young by regurgitation.

George and Yapp are not historians and steer well clear of interpretation. But the more fastidious their speculation, the more it heightens one's curiosity about the unnatural ingredients of the bestiaries. They argue persuasively that

the unicorn may have been inspired by the Arabian oryx, young individuals of which often have only one horn. But is there some kind of sexual symbolism behind the unicorn's almost invariable representation kneeling before a virgin, horn to the fore, while men hack it to pieces with axes? And what about the meaning of some of the bestiaries' other doubtful creatures? George and Yapp suggest that there may be a shadowy king cobra behind the basilisk's baleful stare; that the beguiling cries of monk seals could explain the myth of sirens. But surely some deeper well is being plumbed in the portrayal of the satyr's accoutrements and feisty habits, and in the bizarre mixture of man's face (complete with nightcap), lion's body and scorpion's tail given to the mantichora. And why hybrid animals at all? Structuralists might suspect an engrammed appreciation of symbiosis from their universality. Certainly the cumulative impression given by the documentation in this book is not one of ignorance, but of half-formed ecological instinct. □

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