

cannot be justified solely on grounds of utility. The Greeks attempted to understand and to integrate the whole of experience, including Science in the modern sense, mathematics, the nature of man's mind and soul, and the nature of God, and the object was not primarily a desire to improve the material lot of man. The Royal Society in its early days carried on the Greek tradition and its dining club for more than two centuries has toasted "Arts and Sciences" before its parent society. The author traces the growth of much of modern science from Galileo and Newton who developed the mathematical approach, which culminated in the view of certain scientists including even Lord Kelvin, that Science is concerned only with those phenomena capable of mathematical treatment. The author aptly remarks that to set out with the conviction that Life will eventually be explained in physical or any other preconceived terms is immoral and the very negation of the spirit of Science. Whilst biologists are frequently obliged to call for the assistance of physicists, chemists and mathematicians to solve their problems, it would be a great mistake to assume that this physical method of approach, which involves the study of isolated parts of living beings, is capable of explaining the organism as a whole. The commonsense attitude of the competent amateur naturalist is still scientifically justified and it resulted in the establishment of the concept of evolution. Scientific discovery is often primarily a matter of intuition—an Art, and to get the greatest enjoyment out of life, and to gain the fullest inspiration from those things which reach us through our senses, Science must become a partner of the Arts.

E. H.

WHEN BADGERS WAKE. By EILEEN A. SOPER. Routledge and Kegan Paul. 20s.

This is the story of four years' devoted watching of a badger colony. "Devoted" because Miss Soper is never daunted by discomfort, damp, insects or winter's cold. She watched, almost nightly, the emergence of the badgers from their sets, the prodigious changing of bedding and the wild and fascinating games of the cubs. Ernest Neal, in his preface, mentions the difficulty of photographing badgers. Miss Soper has overcome this with her sketch book, and the drawings which decorate every page are a delight. She has caught these attractive animals in many typical actions and poses, making a valuable and charming record.

In between the yearly accounts of events in the badgers' dell come short digressions on dormice, stoats and birds. These cameos are illustrated in the same talented way. The writing is clear, straightforward and restrained.

In the fourth year Miss Soper's patience was rewarded when she persuaded three cubs to lap syrup from a coconut shell held in her hand. Later an adult badger took nuts from her in the same way. I wonder if anyone else has ever managed to get on such trustful terms with badgers?

But there is a cloud over all this happiness. We read of the repeated gassing of the badgers' sets. Who does it and why? This we are not told. It has been established that any harm done by badgers is negligible compared with the good they do in keeping down rodents and insects. Miss Soper tells us that gassing of badgers is illegal. The Scott-Henderson Report on Cruelty to Wild Animals points out that under the Protection of Animals Act, 1911, it is an offence to put down poison; cyanide, a constituent of most pest-destroying gases, is a poison. However, under Acts of 1939 and 1947 it is not an offence to use poison gas in any hole for the purpose of killing rabbits, hares and other rodents, deer, foxes and moles. Badgers are none of these, so presumably it is illegal to gas them.

Perhaps this question has never been tested in the Courts. If Miss Soper herself took any action she has not told us about it. Is it wilful ignorance which leads men to destroy these inoffensive animals, or can it be that we are returning to the days when badgers were killed just for being badgers?

A. M. V. B.