This book represents a considerable achievement. It has knitted together every conceivable application of nuclear energy in space and will be of enormous help. particularly to those who are just embarking in this field, but also to the student and established space engineer. Priced at 160s., it will probably not adorn many private shelves, but, considering that it contains enough material to fill several more modest books, the price would not seem unreasonable. B. P. DAY

CULT AND CULTURE

The Temple and the House By Lord Raglan. Pp. xi+218. (London: Routledge and Kegan Paul, 1964.) 30s. net.

THE recent death of Lord Raglan robbed ethnology of l one of its most penetrating and independent minds. His work, however, has still, one feels, to be given the attention and esteem it merits. This comparative neglect he shares with A. M. Hocart, surely one of the most brilliant of British cultural anthropologists, whose friend he was, whose literary executor he became and with whose general standpoint in social studies he agreed. The central theory underlying their work is that ritual, a term under which they subsumed all the phenomena variously classified elsewhere as magical or religious, forms the seed ground of civilization; that, in tracing back to their origins features of contemporary cultures, even those which now and for some time have had purely secular and commonplace roles, we arrive at a matrix which is a fusion of cult and culture. This thesis is enormously powerful and fruitful, but obviously finds resistance in minds attuned by the ruling influences of our existing intellectual climate to thinking about human activities as pre-eminently representing an adaptation to needs, biologically or psychologically defined, and, consequently, finding plausible explanations of human cultural characteristics couched in functional, naturalistic or economic terms and dominated by the widely accepted concept of 'adjustment'. Hocart's work was concentrated mainly in the field of social organization. He produced in Kingship and Kings and Councillors a great weight of evidence in support of the idea that in a neolithic and pre-neolithic ritual matrix are found theocratic forms of society and government which, by diffusion from a few centres, have been greatly influential in shaping the social forms of peoples over large parts of the world. Raglan's work was supplementary to this and dovetails with it.

In The Temple and the House, his last work, Raglan argues that the house, far from being as with us a purely secular building, a close approximation in these days to "a machine to live in", has in a great many cultures a whole series of characteristics which attest to its sacredness; that, even in the modern West, there still remain associated with the house a number of practices which are explicable only as survivals of this same sanctity. The house is, or has been, the locus of the cult of domestic gods and deified ancestors. Indications that its site has been divinely chosen are sought before proceeding with a ritual demarcation which will establish it as a sacred island in a secular world. Sacrifice forms part of the foundation of house walls or pillars, and further sacrifices are required after completion of the structure and before occupation. The threshold, as leading to a divine abode and as itself the abode of a number of protecting doities, remains especially sacred: precautions have to be taken in crossing it, especially by a bride newly consecrated by a marriage ceremony that has made her a house mistress with a number of distinctly priestly attributes. The sanctity of the dwelling, henceforth pre-eminently in her charge, is even more clearly seen in a whole series of specifications for its preservation, for keeping it free from ritual pollution. It is impossible on utilitarian grounds to

account for these-for the taboos on cooking in the house. on childbirth, on raising children, on death in the house. They derive rather from a religious complex, the central notion of which was that the cosmos had originally emerged from a preceding undifferentiated potentialitythe 'Chaos' of Genesis-through the operation of a constructive dualistic principle that resulted in a world of paired entities and attributes, complementary but in tension, a world of sky and earth, land and water, right and left, good and evil, light and dark, life and death. This belief was taken so seriously that it gave rise to a prolonged series of endeavours to build the world of man's own making-his culture-on the same foundational principle, and this work was marked by a most extraordinary scope and consistency. The central rite associated with this doctrine was the marriage of sky and earth represented first by selected individuals who later de-veloped into the divine king and queen. The generative, or regenerative, efficacy of this ritual union required its location in a building which symbolized the cosmos and which formed the prototype of palace, tomb and temple. These, in consequence, reflected in their shape and design the dominating cosmographic ideas; at first round or spherical, they later became square, their corners carefully orientated with the "Earth's imagin'd corners". The history of the house shows, apart from emulation, the control of the same notions, for it too was sacred because it was the dwelling of a man and wife consecrated by a sacramental union derived from the sacred marriage, a derivation made plain by the widespread treatment of bride and groom as queen and king and by the cosmic associations of their marriage bed.

The book presents its thesis and its supporting evidence with Raglan's customary economy of exposition and an engagingly succinct but sufficient rebuttal, en route, of various alternative explanations. It opens the gate on a very rich field. Questions of cultural origins are patently difficult, but a continuing enquiry into them, guided by the evidence, not by our preconceptions, is necessary. We would thus safeguard ourselves against the 'ennui' and trivialization that frequently attend social studies cut off by a too functionalist approach from history and from that discovery of meaning which is a discovery of BRYNMOR THOMAS beginnings.

PROGRESS IN PETROLEUM CHEMISTRY AND REFINING

Advances in Petroleum Chemistry and Refining

Vol. 9. Edited by John J. McKetta, jun. Pp. xv+439. (New York and London: Interscience Publishers, a Division of John Wiley and Sons, Inc., 1964.) 150s.

IN 1958 a literary project was inaugurated with the ambitious objective of presenting in book form, at annual intervals, progress reports by leading authorities in the fast-growing disciplines of petroleum chemistry and refining. It was initially argued, with some justification, that: "The industry is so diversified that men in one phase have little knowledge of the progress made in other segments. The research scientist does not know what the engineer is accomplishing, nor does the engineer know what may come from the basic research of the scientist". To the extent that this dictum is sound, the appearance of the ninth consecutive volume of the rather expensive Advances in Petroleum Chemistry and Refining would seem ample justification. The only doubt in my mind is to what extent can the 'pure' petroleum chemist and the chemical engineer concerned with oil refining speak a common language, and thus understand the intricacies of the complex researches on which each is engaged ? When one considers that oil refining, as originally understood, no longer consists of processing crude oil for fuels and