Book Reviews

MAN OF MANY PARTS

Memories

By Julian Huxley. Pp. 296+22 plates. (Allen and Unwin: London, May 1970.) 63s.

With his tongue in his cheek, Thomas Henry Huxley once wrote in a preface to an account of his life, "Autobiographies are essentially works of fiction". Of course, his own was not fictional at all, and nor is his grandson's, for style and artistry help and do not hinder truth. It will be salutary for those who only know of Sir Julian as the leading British biologist to realize how very much more than the leading British biologist it is necessary to be in order to be the leading British biologist. Particularly interesting is the part in his life which poetry and beauty play, instilling in him much intenser feeling than any church service. Intellectually hostile to orthodox Christian dogma, he is all the more deeply religious without revelation, and rejects the excessively materialistic standpoint of certain so-called rationalists.

Many of his pages are contributions to literary history, such as the party at Les Diablerets, when Aldous's wife Maria typed out D. H. Lawrence's Lady Chatterley (he and Frieda were there), while Juliette typed out Julian's Science of Life. Then there were his experiences of that tiresome genius H. G. Wells, and his exposure of the abysmal and arrogant ignorance of Bernard Shaw in biological matters.

Julian sets high store by intuition when deciding on a line of research, and it is fascinating to see how his bird watching led through observation of common birds to the mating habits of redshank, grebe, heron, and many others, discovering the principles of ritualization and displacement activities, and the fact that the birds' behaviour can only be satisfactorily interpreted on the view that they experience emotion and fun. His work published in 1914

was a turning point in the science of ethology.

He had plenty of other lines of research: differential inhibition and re-differentiation in polyps, sea squirts, and metamorphosing sea urchin larvae; experimental embryology and the field concept; allometric growth; genetics; "new systematics" integrated with genetics and ecology, and introducing the concept of the cline, the grade and the clade; and evolution, his greatest work. He is the only Fellow of the Royal Society to have made a film ("The Private Life of the Gannet") which was awarded an Oscar.

One of the secrets of his outstanding career is his physical courage. It takes nerve to climb the back of Balliol Hall, the North Face of Trinity Clock (setting the hands wrong), the Ashmolean, and, symbol of anticipated success, the Examination Schools. This is further seen in his mountaineering; Aiguilles Dorées, Grivola, and Col du Géant in the Alps, Karissimbi in Africa. It also takes nerve when past youth to climb into the crow's nest of a 60-ton sealer on the way to Spitzbergen and to camp out there, to sail to St Kilda in a small yacht, and to run the London Zoo during the blitz. This introduces the infamous, scandalous behaviour of the old zoo council in trying, illegally, to dismiss him from the secretaryship, and then making it impossible for him to do anything other than resign.

Few biologists have had as many friends of all kinds, with whom he has practised cross-fertilization of ideas.

Without mentioning any in Britain (except his better half who has helped and supported him beyond compare for more than half a century), they include all the great American biologists, Judge Holmes, Judge Frankfurter, Richard Goldschmidt, Richard Hertwig, Dohrn, de Vries, Benedetto Croce ("who looked more like a prosperous butcher than a savant"), Norbert Wiener (pioneer of cybernetics), Berg, Zawadovsky, Bukharin, Lunacharsky, and the blind and deaf Helen Keller (whose contact with the world was through the sensitiveness of her fingers) whom he saw feeling a sculpture by Michelangelo. There are not two cultures for Julian. Well does he say, "The era of solitary exploration in the laboratory or the field is now largely a thing of the past, but it was not so in my earlier days". Nor in mine.

The number of adventures that have come his way is remarkable: to be asked by a German doctor in Moscow for a copy of *The Science of Life* as a fee, and by a Lebanese pawnbroker in Kumasi for a copy of *Life and Letters of Thomas Henry Huxley* in return for some gold ornaments. He was present at a tirade by that unspeakable pseudo-scientist Lysenko, Stalin's biological Rasputin, and he could "boast of having been one of the few people to have dined with Stalin in the Kremlin one night, and had tea

with my wife in Hampstead next afternoon".

One of the duties of a scientist is to fight superstition, and there is a splendid description of the exposure of a medium who pretended to summon St Theresa to communicate messages from the departed. The medium was found to be in a cheese cloth, tried to hide a phosphorescent plate, and then shammed dead. He signed a confession of fraud, but within a few weeks was performing again before another audience of fools who were soon parted from their money. The obstinacy of the will to believe is itself a study.

Slightly different was the episode of Julian's advocacy of birth control on the BBC. Lord Reith abused him for having profaned "his" ether with such disgusting stuff. This topic was by no means disgusting to William Temple, Archbishop of York, who wrote to Julian, "I should cordially agree with you that birth control is just as much and just as little 'unnatural' as a pocket-handkerchief or false teeth". As Julian says, John XXIII would not have been scandalized by the report of the Lambeth conference; now the old Italian bachelor who knows no biology but decides off his own bat how hundreds of millions of men and women all over the world shall conduct their sex life, sets the stage again for the old battle between revelation and science. Julian carries on the fight which his grandfather called The New Reformation. and the spirit of Galileo, of Darwin, and of Thomas Henry Huxley still has to be vigorously defended against obscurantist superstition.

It must be a continuing source of satisfaction to Julian to see how the projects which he has either initiated or recommended are flourishing, like the Arts Council, the Council for Industrial Design, Political and Economic Planning, Planned Parenthood, the universities of Makere, Ibadan, Achimoto, Freetown, various British national parks and nature reserves, and the United Nations preparatory commission. But here I must stop, because the book does; in the sequel (to which we look forward eagerly) the world will be reminded of who it was who put the S in UNESCO.

GAVIN DE BEER

LATE LEARNERS

A History of Adult Education in Great Britain By Thomas Kelly. Second edition. Pp. xii+420. (Liverpool University Press: Liverpool, 1970.) 63s.

This is the second edition of a work first published in 1962. It has been enlarged by the addition of chapters on the