

Dr Gauld's detailed and scholarly book aims at providing an examination of the lives, characters and work of three men—Henry Sidgwick, F. W. H. Myers, and Edmund Gurney, all Fellows of Trinity College, Cambridge, who dominated the early work of the society.

The book contains two sections. The first is about the rise of modern spiritualism in America; spiritualism in England in the latter half of the nineteenth century and early work of the Sidgwick group, leading to the foundation of the Society for Psychical Research.

The second section is concerned with the work of the society during the first nineteen years of its existence. Here some of the famous investigations are discussed and reappraised. This section also includes a lengthy discussion of Myers's theory of the "subliminal self" and his "cosmology and theory of the soul".

Dr Gauld's book has been criticized by Mr Trevor Hall, another historian of psychical research¹. In his review, Hall claims that Gauld, while being historically accurate, has failed to mention important material that might be considered indispensable to any history of that period. The omission of important facts is also evident when considering a further aspect of Dr Gauld's book. For, in addition to providing an historical account, Dr Gauld attempts to persuade his readers that there might have been something, after all, in the rappings, levitations and spooky goings-on that occupied the attention of the three main characters. He fails, however, to report important observations that suggest physical rather than psychical explanations. For example, he discusses the case of Eusapia Palladino, a Victorian lady who puzzled numerous investigating committees by levitating tables and causing objects to materialize and float about in her immediate vicinity. He does not mention a letter in *Science*², submitted on behalf of an investigating committee at Columbia University, in which her *modus operandi* was made patently obvious.

This book will be indispensable to those, interested in the history of psychical research and also to social historians concerned with the spread of spiritualism during the nineteenth century. It is unlikely to impress those people who find it difficult to take seriously the idea that spirits of deceased persons should have levitated tables for the entertainment and scientific edification of groups of Victorian intellectuals. C. E. M. HANSEL

¹ Hall, Trevor H., *The Yorkshire Post*, May 16 (1968).

² Miller, D. S., *Science*, 87 (1910).

OBITUARIES

Dr Edouard le Danois

DR EDOUARD LE DANOIS, remembered as one of the great "all-rounders" of international oceanography, died at his home in Saint Germain-en-Laye on June 11, 1968. He was 81.

Le Danois was remarkable for more than 500 "memoires et notes", ranging over many topics, for besides being an eminent specialist in fish systematics, le Danois had a considerable competence in palaeography and physical oceanography. He was also very well qualified in the practical aspects of the great fisheries and he published papers on catch handling and preservation. British oceanographers will particularly recall his publications on oceanic transgressions and deep "fossil waters"; and will remember how vigorously he defended his views before dissentient audiences.

His many research expeditions took him to Russia in 1908, to study the Volga fishery; to Greenland and Newfoundland in 1910; whaling in 1911; with Charcot in the

"Pourquoi-Pas?" in 1912-14; and with the Canadian Coastguard in the North Pacific in 1923. Many who knew him during his long directorship of the Office Scientifique et Technique des Peches Maritimes will remember the powerful influence he exercised at the meetings of the International Council for the Exploration of the Sea, both as an expert and later, from 1920 to the outbreak of the Second World War, as French delegate. He was chairman of some of its committees and editor of its *Rapports Atlantiques*. He wrote much on the anatomy of cetaceans and about the hake, the tunny and the cod. Among his numerous books, *Les Profondeurs de la Mer* and *Vie et Moeurs des Poissons* merit special mention. Many English marine biologists will be familiar with his handsome translated book, *Fishes of the World* (Harrap, 1957), and will have enjoyed its delightful scholarly preface. Physical oceanographers will particularly remember his 1938 book, *L'Atlantique: Histoire et Vie d'un Océan*, and various other papers on the "hydrology" of the Atlantic.

His distinction as a soldier of France can be set beside his scientific attainments, with the Yser Medal to accompany his Croix de Guerre (1914-18). He was an officer of the Legion of Honour, a commander of the Mérite Maritime, holder of the gold medal of the Société de Géographie, possessed the honour medal of the Meteor Expedition—and held Italian and Danish honours as well as some from former North African possessions of France. He was a member of the Académie de Marine, an associate member of the Musée d'Histoire Naturelle, secretary-general of the International Commission for the Scientific Exploration of the Mediterranean Sea and, among a number of other distinctions, a corresponding member of the Zoological Society of London and an honorary member of the Challenger Society.

His daughter, Mlle Yseult le Danois, who is herself a distinguished ichthyologist, is currently engaged on preparing the work of his last years—a large work on the systematics of fishes—for the press, an achievement that would bring great pleasure to the many who have lost a colleague and friend.

Georges Lavier

GEORGES LAVIER, the doyen of the French parasitic protozoologists, died on January 13 this year in Burgundy, where he had been born 75 years earlier. He was educated at Dijon and acquired a good grounding in the classics. At the same time, he was attracted to nature and he later graduated, first in the natural sciences and then in medicine, at the University of Dijon. On the outbreak of the First World War he joined up and was posted to the East, where he first became acquainted with malignant malaria, typhus and dysentery.

On leave, he returned to Paris, where Blanchard gave him formal tuition in parasitology and, after the war, Brumpt took Lavier on his staff, consolidating his growing interest in this subject. Ten years later, Lavier became professor of zoology and parasitology in Lille and, after a further decade, he was appointed to the chair of tropical medicine in Brumpt's famous institute in Paris. Here he passed his final years, gathering around him a large circle of students, including Jean Schneider, his successor, who unfortunately predeceased his master. Foreign protozoologists were drawn to visit him in his laboratory, or joined him and his close circle of friends for a lavish meal at his favoured restaurant, Le Clos de Lilas, at the top of the "Boul. Mich". Lavier never sought the limelight, but he radiated welcome; his poise, his deep but unforced culture, the absence of the ponderous and his light wit made him a delightful companion.

These same characteristics were apparent in Lavier's work, the result of clear thinking, unsubmerged in dreary statistics, but penetrated by intuition and art. He thus made great contributions to parasitology as a living subject. As an artist, he drew and described coccidia,

amoebae, trypanosomes and haematozoa of fish, reptiles and amphibia as well as of mammals; as a biologist, he traced their evolution and relationships in schemes which are still in use; as a physiologist, he unravelled the functions of the parabasal bodies and the kinetoplast of flagellates; and, as a tropical pathologist, he was among the first to study parasitic eosinophilia—the “Curve of Lavier” representing four phases in the development of helminthic infections—and the little known cardiac complications of sleeping sickness. As a zoologist, he studied the natural parasites of invertebrates; as a medical man, he observed the parasites of human infections in the invertebrate vectors.

Lavier's work was characterized by fine and careful technique. This enabled him to trace the route of migrations of the polymorphic trypanosomes to their final destination in the salivary glands of the tsetse flies; his observations on these organisms were largely made during the course of a prolonged visit to Uganda in 1927 and 1928.

Wenyon, Brumpt and Lavier were masters of parasitology and, with the death of the last, an era in European parasitology seems to have come to an end.

University News

Dr C. M. Anderson, Royal Children's Hospital Research Foundation, Melbourne, has been appointed to the chair of paediatrics and child health in the Faculty of Medicine and Dentistry, **University of Birmingham**. **Mr H. Maddick** has been appointed to the chair of local government studies, and **Professor A. P. D. Thomson**, University College of Rhodesia, to the newly established full-time post of executive dean in the Faculty of Medicine and Dentistry. The title of honorary professor of medicine of the tropics in the Department of Medicine has been conferred on **Dr H. V. Morgan**.

Dr R. T. Severn has been appointed to the chair of civil engineering and headship of the Department of Civil Engineering in the **University of Bristol** on the retirement of **Professor Alfred Pugsley**.

Dr D. H. Jennings, University of Leeds, has been appointed to the second chair of botany in the **University of Liverpool**.

Mr R. H. Macmillan, director of the Motor Industry Research Association, has been appointed industrial professor, and **Mr F. D. Hales**, also of the Motor Industry Research Association, has been appointed professor of surface transport, both in the Department of Transport Technology at **Loughborough University of Technology**. **Dr D. Johns**, reader in aeronautical engineering in the Department of Transport Technology, has been appointed to a personal chair in the same department; and **Mr K. J. Hume**, reader in production technology in the Department of Industrial Engineering and Management, has been appointed to a personal chair in that department.

Dr J. N. Walton has been appointed to a personal chair of neurology and **Dr D. G. Armstrong** to a personal chair of agricultural biochemistry in the **University of Newcastle upon Tyne**.

Appointments

Dr G. F. Claringbull has been appointed director of the **British Museum (Natural History)** as from December 1 on the retirement of **Sir Terence Morrison-Scott**. The following appointments have also been made: **Mr R. Ross** to be a deputy chief scientific officer; **Dr P. Freeman** to be keeper of entomology; and **Dr D. R. Ragge** to be deputy keeper of entomology and a senior principal scientific officer.

ERRATUM. The publisher of the book *The Heart of the Earth* (reviewed in *Nature*, 219, 655; 1968) is Freeman, Cooper and Co., not Freeman as stated.

ERRATUM. In the article “Arrangement of the Continents during the Palaeozoic Era” by K. M. Creer (*Nature*, 219, 41; 1968) the first four tables should have been as follows:

Table 1. SOUTH AMERICAN MEAN POLES

Pole No.	Period	Source	Lat.	South Pole		
				Long.	Alpha	N
					95	
SA 3	Cambrian to Lower Devonian	Mean of Lower Palaeozoic poles ref. 11	8° N	45° W	15°	5
SA 6a	Lower Carboniferous	Pole 6(i) ref. 2	28° S	34° W	—	1
SA 6c	Permo-Carboniferous	Mean of poles 6(ii) and 7(i) ref. 2	65° S	13° W	—	2
SA 10	Cretaceous	Pole 10(i) ref. 2	78° S	54° E	—	1

Table 2. AFRICAN MEAN POLES

Pole No.	Period	Source	Lat.	South Pole		
				Long.	Alpha	N
					95	
AF 2	Cambrian-Ordovician	Mean of poles B1 and B2 ref. 6	21° N	20° W	0	2
AF 6a	Lower Carboniferous	Pole B4 ref. 6	26° S	26° E	—	1
AF 6b	Upper Carboniferous	Pole B5 ref. 6	45° S	40° E	—	1
AF 7a	Lower Permian	Pole B6 ref. 6	27° S	89° E	—	1
AF 6c	Permo-Carboniferous	Mean of poles B5 and B6 equivalent to pole 7(ii) ref. 2	38° S	76° E	—	3
AF 9	Triassic to Cretaceous	Mean of poles B7 to B15 ref. 6	64° S	81° E	5°	9
AF 11	Tertiary	Mean of poles B18 and B19 ref. 6	78° S	43° W	—	2

Table 3. AUSTRALIAN MEAN POLES

Pole No.	Period	Source	Lat.	South Pole		
				Long.	Alpha	N
					95	
AU 2	Cambrian	Mean of poles C1 and C2 ref. 6	35° S	21° E	—	2
AU 6a	Lower Carboniferous—Upper Devonian	Mean of poles C4 to C7 ref. 6	76° S	2° E	11°	4
AU 6c	Middle—Upper Carboniferous	Pole C8 ref. 6	73° S	147° E	—	1
AU 7	Permo-Carboniferous	Mean of poles C9 to C14 ref. 6	46° S	133° E	7°	6
AU 9	Triassic to Cretaceous	Mean of poles C15 to C23 ref. 6	50° S	149° E	6°	9
AU 11	Tertiary	Mean of poles B16 and B17 ref. 6	73° S	139° E	—	2

Table 4. EURASIAN MEAN POLES

Pole No.	Period	Source	Lat.	South Pole		
				Long.	Alpha	N
					95	
EU 2	Cambrian	Eastern USSR Rodionov ref. 7	39° N	41° W	15°	6
EU 3	Ordovician	“ “ “	27° N	51° W	6°	9
EU 4	Silurian	“ “ “	28° N	42° W	—	3
EU 5a	Lower Devonian	Midland Valley Lavas ref. 5	10° N	38° W	—	1
EU 6	Carboniferous	Pole 6 iv ref. 2	35° S	34° W	0°	25
EU 7	Permian	Pole 7 iv ref. 2	44° S	17° W	4°	24
EU 8	Triassic	Pole 8 iv ref. 2	50° S	33° W	4°	17
EU 11	Tertiary	Pole 11 iv ref. 2	78° S	31° W	6°	13

In Fig. 4 the pole AF6d should be labelled AF7a. In Fig. 5 the pole labelled AF6a in black should be labelled AF6b.

CORRESPONDENCE

Exploiting and Polluting Oceans

SIR,—Hamlet knew a hawk from a handsaw (Act 2, scene 2).

Doesn't *Nature* know a gull from a guillemot? (*Nature*, 219, 840; 1968).

Yours, etc.,

L. HARRISON MATTHEWS.

Stansfield,
via Sudbury, Suffolk.