

The satellites were formed in a similar manner to the planets, the scattered material surrounding the planets forming local condensations which coalesced to form satellites. In the case of the moon and other large satellites, like Titan and Triton, it is suggested that this mechanism was not in operation, and it is thought that the moon was formed of the same primitive material as the earth. The asteroids were formed from condensations which failed to coalesce into larger agglomerations, the perturbations of Jupiter being responsible for this effect. The comets were formed in a cloud of scattered material which may still extend far beyond the orbit of Pluto. Owing to the diffuse condition of the material the condensations did not coalesce, merely condensing on self. While the asteroids developed sufficient cohesion to form solid bodies, the comets remained a mere collection of loose particles. Probably the great difference of temperature was responsible for this divergence of development.

The theory is stated in a very tentative form and a large amount of detail still remains to be developed. No doubt the author will clarify a number of points which appear to present certain weaknesses in the theory.

## THE MUMBWA CAVES, NORTHERN RHODESIA

THE Mumbwa caves have long been known. Yet, in spite of the fact that in South Africa prehistoric cave sites are few and far between, only now has efficient and systematic investigation been undertaken. F. Macrae, many years ago, was the first to make some trial excavations, the resulting finds from which are in the Cambridge Museum of Archaeology and Ethnology, but no complete investigation was attempted. Macrae unearthed a really fine Acheulean type of *coup de poing* in the basal level, and this was covered by other layers containing poor Middle Stone Age industries. A characteristic feature was the number of spherical stone balls found. Now at last a detailed account of the whole section actually present has been prepared ("Further Excavations (1939) at the Mumbwa Caves, Northern Rhodesia", by J. Desmond Clark, *Trans. Roy. Soc. of S. Africa*, 29, Pt. III).

At once it must be remarked that the so-called furnace with iron slag said to have been found in the middle levels by a previous investigator (not Macrae) has been shown to have probably been a grave, while the 'slag' has been proved to be merely a brown cave deposit of sand and silt cemented by calcium phosphate and carbonate. Clark found no more lower palaeolithic artefacts, and it would seem that the inhabitants of the Mumbwa sites in those times cannot have been numerous. Macrae was evidently lucky. Above the lowest level comes an industry called by Clark the Rhodesian Stillbay, and this in turn is overlain by a Northern Rhodesian Wilton, the whole being capped by a layer containing iron objects. The finds are well illustrated and carefully analysed, and comparisons are made with other discoveries in the region and at the classic sites.

A section on the geology of the caves has been supplied by F. E. Zeuner, and the author has had the advantage of collaborating with I. F. Schofield when describing the Iron Age culture from the uppermost layer. The article as a whole is a very useful piece of work.

M. C. BURKITT.

## FORTHCOMING EVENTS

Saturday, September 4

BRITISH PSYCHOLOGICAL SOCIETY (at Tavistock House, Tavistock Square, London, W.C.1), at 2 p.m.—"On the Problem of Representative Sampling of the Population"

## APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

TEACHER OF MINING SUBJECTS—The Education Officer, County Hall, Wakefield (September 1).

EDUCATIONAL PSYCHOLOGIST AT THE CHILD GUIDANCE CLINIC—The Chief Education Officer, Education Offices, Northern Secondary School, Mayfield Road, Portsmouth (September 4).

ADVISORY MYCOLOGIST—The Secretary, North of Scotland College of Agriculture, 41½ Union Street, Aberdeen (September 4).

LECTURER IN ELECTRICAL ENGINEERING of Degree standard for National Certificate Course, at the South-East London Technical Institute, Lewisham Way, S.E.4—The Education Officer (T.1), County Hall, Westminster Bridge, London, S.E.1 (September 4).

TEACHER FOR THE CORRECTION OF SPEECH DEFECTS—The Director of Education, Education Offices, Town Hall, Hanley, Stoke-on-Trent (September 11).

HEAD OF THE DEPARTMENT OF MATHEMATICS—The Principal, Heriot Watt College, Edinburgh (September 20).

HEADS OF THE DEPARTMENTS OF PHYSIOLOGY, MEDICINE, AND SURGERY—The Bursar, Royal Veterinary College and Hospital, at The University, Reading (October 1).

CHAIR OF NAVAL ARCHITECTURE—The Acting Secretary of University Court, The University, Glasgow (October 4).

DIRECTOR OF ROBERT GORDON'S TECHNICAL COLLEGE—The Secretary, Robert Gordon's Technical College, Aberdeen (October 16).

LECTURER IN ELECTRICAL ENGINEERING for part-time students taking London University Examinations to Final B.Sc. and Higher National Certificate standards—The Principal and Organizer of Further Education in Rugby, College of Technology and Arts, Eastlands, Rugby.

TEACHERS FOR EVENING CLASSES IN CHEMISTRY up to Intermediate Science standard—The Director of Education, The Polytechnic, 309 Regent Street, London, W.1.

ASSISTANT PORT HEALTH OFFICER for the Basrah Port Directorate, Government of Iraq—The Secretary, Overseas Manpower Organisation (Ref. 1034), Ministry of Labour and National Service, Alexandra House, Kingsway, London, W.C.2.

DEPUTY CHIEF CHEMIST—The General Manager, Liverpool Gas Company, Bold Street, Liverpool 1 (endorsed 'Chemist').

## REPORTS and other PUBLICATIONS

(not included in the monthly Books Supplement)

### Great Britain and Ireland

Medical Research Council. Special Report Series, No. 244: Chronic Pulmonary Disease in South Wales Coalminers, 2: Environmental Studies. A.: Report by the Committee on Industrial Pulmonary Disease; B.-G.: Reports on Physical, Chemical and Petrological Studies, by Dr. T. Bedford and Dr. C. G. Warner; Prof. H. V. A. Briscoe, Dr. P. F. Holt, Dr. N. Spoor and others; Dr. G. Nagelschmidt; Dr. A. Brammall and Major J. G. C. Leech; D. Hicks and Dr. G. Nagelschmidt; J. Ivon Graham and Dr. D. F. Runclices, and co-workers. Pp. xi+222. (London: H.M. Stationery Office.) 10s. 6d. net. [48]

Mycological Papers No. 6: Colour Terminology in Biology. By H. A. Dade. Pp. 25. (Kew: Imperial Mycological Institute.) 3s. 9d. net. [58]

Department of Scientific and Industrial Research. Index to the Literature of Food Investigation. Vol. 14, No. 2, September 1942. Compiled by Agnes Elisabeth Glennie, assisted by Catherine Alexander. Pp. iv+73-150. (London: H.M. Stationery Office.) 4s. 6d. net. [128]

### Other Countries

Report and Accounts of the National Botanic Gardens of South Africa, Kirstenbosch, Newlands, Cape (and the Karoo Garden, Whitehill, near Matjiesfontein) for the Year ending 31st December 1942. Pp. 12. (Kirstenbosch: National Botanic Gardens.) [58]

Uganda Protectorate. Annual Report of the Forest Department for the Year ended 31st December 1942. Pp. 8. (Entebbe: Government Printer.) 1s. [68]

U.S. Department of Agriculture. Technical Bulletin No. 848: The Ecology of the Principal Summer Weed Hosts of the Beet Leafhopper in the San Joaquin Valley, California. By F. R. Lawson and R. L. Plemel. Pp. 38. (Washington, D.C.: Government Printing Office.) 10 cents. [98]

### Catalogues

A Catalogue of Miscellaneous Books in English History and Literature printed after 1700, followed by a selection of Recent Purchases including the series of Chronicles and Memorials published under the direction of the Master of the Rolls. Fine Arts, Natural History, Works by William Prynce, Sports. (No. 612.) Pp. 40. (London: Bernard Quaritch, Ltd.) 3d. [82]

An Improved Design of Portable Three-Cup Anemometer. (Leaflet 661.) Pp. 4. (London: C. F. Casella and Co. Ltd.)