

Eastern Asia and Oceania

WILHELM G. SOLHEIM II

TENTH PACIFIC SCIENCE CONGRESS

A general notice of the Tenth Pacific Science Congress was presented in this section of the last news issue of *Asian Perspectives*. There are to be four sessions jointly sponsored by the Section of anthropology and Social Sciences of the Congress and the Far-Eastern Prehistory Association. The organizer of this Division is Dr Kenneth P. Emory, Department of Anthropology, Bernice P. Bishop Museum, Honolulu 17, Hawaii and the Co-organizer is Dr Wilhelm G. Solheim II, FEPA, Department of Anthropology and Archæology, Florida State University, Tallahassee, Florida. Three of the sessions are symposia; these are: 'Geochronology: Methods and Results', Convener—Wilhelm G. Solheim II; 'Current Research in Pacific Islands Archæology', Convener—Kenneth P. Emory; and 'Trade Stone-ware and Porcelain in Southeast Asia', Convener—Robert P. Griffing, Jr., Director, Honolulu Academy of Arts, Honolulu, Hawaii. The fourth session will be 'Contributed Papers on Far Eastern Archæology', with its Chairman Roger Duff, Director, Canterbury Museum, Christchurch, New Zealand. There are a number of other symposia in the Anthropology and Social Science Section which will be of particular interest to the archæologist. A detailed report of the meetings will appear in the Winter 1961 issue (Vol. V, No. 2) of *Asian Perspectives*.

UNIVERSITY PROGRAMMES IN FAR-EASTERN PREHISTORY

Academic interest in the inclusion of Oceanian and Southeast Asian prehistoric archæology in the university curriculum is continuing to increase. In 1960 the Australian National University indicated their intention of including this in their programme with the selection of Jack Golson as a Fellow on the staff of their Department of Anthropology and Sociology. Golson, as previous readers of *Asian Perspectives* know, is from the University of Auckland in New Zealand and has been very active in New Zealand, Polynesian and Melanesian archæology.

The University of Sydney is now advertising a Lectureship in Anthropology for which 'Candidates should have specialized, or be prepared to specialize in the pre-history of South-East Asia and/or Oceania . . .'

Indications are that in conjunction with the East-West Center, the Department of Anthropology of the University of Hawaii will be increasing its offerings in Far Eastern prehistoric archæology with particular reference to Southeast Asia and Oceania. Kenneth Emory, who has been presenting a few archæology courses on a part-time basis, while continuing to offer one course per semester, will be returning full time to his work with the Bishop Museum in Honolulu. Wilhelm

G. Solheim II will be taking over the majority of his courses and will initiate others on a full time basis.

EAST-WEST CENTER

From the *Information Bulletin* (Vol. 12, No. 6) of the Pacific Science Association we have the following information: 'The East-West Center for cultural and technical interchange has been established as an integral part of the University of Hawaii. The Center has two principal divisions, an International Training Agency and an International College. It welcomes both graduate and undergraduate students, scholars, and technical trainees.

'All foreign students are admitted as unclassified students to the International College. They are transferred into regular academic colleges of the University upon qualifying as degree candidates. The University offers a four-year Bachelor degree in thirty departments including . . . anthropology, . . . Far East studies, genetics, geography, . . . Pacific islands studies, . . . psychology, sociology. . . .

'Young men and women of unusual promise are offered scholarships which cover all expenses involved in attending the East-West Center, as well as a study tour to the U.S. Mainland. Approximately 125 scholarships are available in the 1960-61 school year; another 250 for 1961-62. Scholarships will increase each successive year and total 1,000 by 1965. Most scholarships are for a two-year period.

'Senior scholars from Asia and the West are offered grants to enable them to come to the Center to participate in joint research efforts, special conferences, seminars, and discussion meetings. During the 1960-61 year there will be twenty seminar grants available. Each year the number will increase until 1966, at which time there will be 200 such grants available.

'Further information may be obtained from: The Director, East-West Center, University of Hawaii, Honolulu 14, Hawaii.'

The Department of Anthropology of the University of Hawaii will be taking an active part in this programme.

MAN AND THE HUMID TROPICS

A symposium on 'The Impact of Man on Humid Tropic Vegetation' was sponsored by UNESCO from the 14th to the 20th of September 1960. The deliberations of the participants are of much interest to the archæologist working in tropical areas. They suggested to UNESCO the desirability of action on the following matters:

Study of secondary plant communities produced by human disturbance of the tropical forest.

Recording the use of plants by primitive human communities.

Studying the early forms of animal husbandry, and the effects of alien civilization on primitive people.

Study of the original vegetation and of the soils of limestone formations in the Humid Tropics.

Safeguarding examples of the original environment in the Humid Tropics from irretrievable loss, and stimulating effective programmes for the conservation of natural resources.

Investigations into ecological implications of root physiology.

Study of the relationship of primitive man to his environment in the very few remaining areas of Southeast Asia and Tropical Oceania where alien influence is only beginning.

(The above from Vol. 12, No. 6 of the *Information Bulletin* of the *PSA*; while from No. 5 we have the following information:)

Immediately prior to the meeting of the Tenth Pacific Science Congress in Honolulu will be held the Third Session of UNESCO's International Advisory Committee for Humid Tropics Research. Their programme includes a special symposium on 'Man's Place in the Island Ecosystem'. Dr E. R. Fosberg is the convener of the symposium. Topics of particular interest to the archæologist included are:

The Ecosystem Concept. Introductory paper by DR F. R. FOSBERG.

The Island Ecosystem in the Pacific

- A. A survey of the variety of island environments—DR WILLIAM L. THOMAS, Jr.
- B. The natural ecosystem—an attempt to evaluate island conditions before the advent of man.

Man in the Ecosystem

- C. 'Man's place in nature.'
 - 1. A general discussion of the man-culture-environment problem—DR CLARENCE GLACKEN.
 - 2. *a.* Nature's effect on and control of man—DR MARSTON BATES.
b. Man's effect on and control of nature—PROF. G. MANGENOT.
- D. Review of Pacific cultures from the point of view of the differences among them in their relationships with the biological and physical environment.
 - 1. Survey of Pacific culture groups with regard to the nature of their adaptation to island environments—DR G. P. MURDOCK.
 - 2. Survey of Pacific culture groups with regard to the nature and extent of their alteration of or control over their island environments.
- E. Culture change in modern times.
- F. Population considerations on Pacific islands—DR IRENE TAEUBER.

BOOK DEALERS

We are in contact with two book dealers who specialize either in anthropology books or on an area in the Far East. As they may be of interest to others they are: Interart-Buchversand Klaus Renner, Munchen 59, Gross-Friedrichsburger Strasse 32, Germany; and the Cellar Book Shop, Box 6, College Park Sta., Detroit 21, Michigan, U.S.A. The latter specializes in books on Southeast Asia, and the Philippines in particular.

BOOK NOTES

Field Guide Series

The Committee on International Anthropology of the Division of Anthropology and Psychology of the National Academy of Sciences—National Research Council is issuing a series of guides to field research. From the first of this series we find that: 'The purpose of these field guides is to provide information which the research worker, entering an area for the first time, should have in order to plan his trip, get clearances from governments, deal with interested scientific institutions and scholars, comport himself properly in relations with local leaders, and generally establish a favourable working status for himself prior to the point where he applies his professional techniques to the problem in hand'.

The two numbers which have been issued covering areas within the Far East are: FIELD GUIDE TO OCEANIA, *Field Guide Series Number One*, by FELIX M. KEESING (1959); and FIELD GUIDE TO JAPAN, *Field Guide Series Number Three*, by RICHARD K. BEARDSLEY (1959). For a person's first trip into one of these areas there is a wealth of information available in these two numbers. Even for the 'old timers' there may be new ideas presented. Inquiries should be sent to the Committee on International Anthropology in care of the Division of Anthropology and Psychology, National Academy of Sciences—National Research Council, 2101 Constitution Avenue, Washington, D.C.

Bulletin of the International Committee on Urgent Anthropological and Ethnological Research.

A notice that came with the first number of this *Bulletin* states that: 'The editors of this *Bulletin* invite contributions concerning cases in which research on racial groups, tribes, cultures or languages is particularly urgent in order to save for science data which otherwise might be irretrievably lost. They may be written in English, French, German, Spanish, Italian, Portuguese or Dutch.'

The archæologist in his field work may come across such groups of people that other anthropologists have not contacted. Information should be obtained on any ethnic group which is in danger of losing its identity and this sent to the Editor of this *Bulletin*, Dr Robert Heine-Geldern, Reitschulgasse 2, Vienna 1, Austria. The purpose of the publication in this *Bulletin* of the scanty information sent in on such groups is to make readily available a list with some accompanying information of these groups on which work is urgently needed. It is hoped that this will channel more field research into recording as much as possible on these groups before they are gone.

Terms used in Archæology; A Short Dictionary. CHRISTOPHER TRENT. New York, Philosophical Library, 1959.

The audience for which this dictionary was prepared is obviously the interested English-reading layman who is living in the British Isles. The most advanced person to whom it could be of use is a serious student of the archæology of the British Isles who follows archæology as a hobby. It could also serve as a sort of traveller's guide to the archæology of the British Isles and neighbouring areas on the Continent. It is of no use to anyone whose interests are general or outside of this area.

Dictionary of Anthropology. CHARLES WINICK. New York, Philosophical Library, 1956. 579 pp. US \$10.00

In contrast to the first dictionary noted, this dictionary is of value to professional and layman alike. Like any first general dictionary of a subject, particularly of a subject so new and changing so rapidly, there are a number of words left out or incompletely defined. However, this is a very good beginning of what we hope will see future revised editions.

The dictionary is a bit weak for the Far East. For example, the following terms were left out completely: Jomon, Dongson, Trinel fauna, Djetis fauna, chopper-chopping tool, walzenbeil, schulterbeil, vierkantbeil, and volcanology. All definitions referring to 'Age', such as Bronze Age, Iron Age, Neolithic Age, Palæolithic Age, etc., refer only to those time spans as used for Europe and the Middle East. The same terms as used (unfortunately) in the Far East would have to be defined quite differently. Some terms are not sufficiently broad, as for example *anito*. The definition refers only to its use by the Bontok Igorot whereas it is a common term with many groups in the Philippines.

Terms having to do with pottery manufacture are particularly lacking. Among those left out completely are: cord-marked, *au-panier*, basket-marked, incise, impress, applique, mold, and model. The complete definition for 'Method, paddle and anvil' is 'A primitive pottery-making technique'. This is certainly inadequate. Ring building is not a separate entry (as it should be) nor is it specifically included under coiling. Let me say again this is a good beginning and well worth the effort.

Man's Journey through Time. L. S. PALMER. New York, Philosophical Library, 1959. 55 figs., 9 tables, index, 184 pp.

Palmer's purpose in this book is to examine quantitatively man's physical and cultural change through time. To do so he felt it necessary to explain in some detail how the time factor is controlled. In so doing he has presented a very readable and understandable short chapter ('The Time Factor', pp. 103-140) summarizing the dating methods of geochronology. This chapter would be a good starting point for anyone interested in a general study of geochronology. Though there is no bibliography, the major works are noted in the footnotes.

It may be worth noting the difference between the British and the American held duration of the Pleistocene. Both Palmer and Bowen (see review of *The Exploration of Time* below) use the British figure of 600,000 years, though Palmer does leave the beginning of the Pleistocene out of his figures. The Americans generally use 1,000,000 years. Neither are certain of their numbers. This of course results in widely varying times for any particular stage of the Pleistocene when stated in years, depending on which system is followed.

Palmer is a physicist. If this had not been noted in his introduction it would be possible to be rather critical of the anthropological portions of the book. However, while not uncommon, his mistakes are minor as far as his major purpose is concerned.

In summation, he presents his data for physical and cultural change in graphic form (pp. 144-145 and 156-157). He shows a relatively steady but uneven physical evolution for Man and a spectacular change in pace for cultural evolution beginning shortly before the start of the Neolithic. This is not the place to argue over the method used by Palmer or his results. Both his method and the results are of considerable interest to all anthropologists.

Geochronology, University of Arizona Bulletin, Physical Science Bulletin No. 2. TERAH L. SMILEY. Tucson, University of Arizona Press, 1955. 38 illus., 200 pp. US\$1.50

This is one of the best books available on geochronology as a whole, even though it was organized 'With Special Reference to Southwestern United States'. The chapter headings best present its contents. They are I—The Geochronological approach to temporal problems; II—Astronomical aspects of geochronology; III—Geochemistry and radio-chemical dating; IV—Geological stratigraphy; V—Palaeontology; VI—Pollen analysis; VII—Archaeological stratigraphy; VIII—Varve studies; IX—Geologic-climatic method of dating; X—The C-14 age determination method; XI—Dendrochronology; XII—Palaeoclimatology. It is now in the process of thorough revision and bringing up to date and will be reissued in a new edition within another two or three years.

The Story of Archaeology. AGNES ALLEN. New York, Philosophical Library, 1958. 83 illus., index, 245 pp.

Like all general books on 'romantic' archaeology, this book includes nothing on the Far East. It would be pleasant reading for a twelve year old and I enjoyed it too. It is an upper grammar school version of the recently popular books on archaeological discoveries.

The Archaeologist at Work. ROBERT F. HEIZER, Editor. New York, Harper & Brothers, 1959. Illus., index, 520 pp. US\$8.00.

Subtitled 'A Sourcebook in Archaeological Method and Interpretation', this is a different sort of an anthology, or source book, than most. By using excerpts from major archaeological reports the editors illustrate a variety of archaeological methods used for specific ends. The book is divided into thirteen sections, each dealing with one of these archaeological ends. The titles of these sections are: 1. Reconstruction of specific events; 2. Restoration; 3. Reconstruction of life and customs; 4. Reconstruction of houses; 5. Prehistoric ecology; 6. Population; 7. Survey and site reconstruction; 8. Stratigraphy and stratification; 9. Age-dating by rate of accumulation; 10. Cross dating; 11. Seriation; 12. Lithic and metallic sources; 13. Art.

This is a book organized for serious students, future professionals to be. It serves its purpose well.

It is interesting to note in passing, the location of the sites which were covered in the individual excerpts. Fifty-four sites are included. Only one site comes from our area of the Far East, and that is the site of Pazirik in Russia, at the very western border of our area. While this is partially the result of language difficulties, particularly as far as Japanese archaeology is concerned, unavailability of material as far as the Chinese Mainland is concerned, and lack of knowledge of the marvelous French work at Angkor, this is also a reflection on the extent and quality of the work that has been done in the area. I hope that this statement can not be made again in ten years.

The Exploration of Time. R. N. C. BOWEN, London, George Newnes Limited, 1958. 40 figs., 143 pp.

The book reviews the problems of relative and absolute age determination of geologic and archaeological materials and presents a digest of the methods employed. The treatment is descriptive and is apparently designed to provide a more expanded discussion of the problem than is usually found in general texts on geology and archaeology yet avoids technical or detailed discussion of methods, sample preparation or critical evaluation of the reliability of the data.

The first 32 pages present a more or less up-to-date review of current geological interpretations of 'the earth as a planet'. The physical and chemical methods of relative and absolute age determination are briefly described in 22 pages; 6 pages are given to astronomical methods; 6 pages are given to botanical methods; 4 pages are given to zoological methods; 21 pages are devoted to non-radioactive geologic methods and 26 pages are given to archaeological methods and to the archaeological time scale. The book is definitely slanted to the archaeological problems.

The reviewer is in doubt as to the original purpose of the book. It is well written, well organized and well presented so that an interested layman could read it and get much from it but from a professional standpoint, it is of limited value. The treatment is not sufficiently detailed to make it suitable as a text in a course on chronology or as a handbook. Although many workers are indicated

by name and the historical development of methods and ideas are accurate, only four references are given so the book is of limited use as a guide to original sources. In short, from a professional point of view, those who could appreciate the condensation and reviews provided would not need them and those who would need them would need much more. The current emphasis on and the new methods available for chronologic work provide an excellent opportunity for an up-to-date critical review that would have been welcomed by the profession. Bowen's contribution does not fill this need.

Northeast Asia

CHESTER S. CHARD

Received 25 October 1960

FIELD WORK

According to available information from publications and correspondence, the principal field activities in our region during 1959 were the following:

The Angara Expedition, directed by A. P. Okladnikov, worked in seven sections, salvaging archæological remains in the reservoir area of the Bratsk hydro-electric project. Z. A. Abramova continued excavations at the Palæolithic site of Krasnyi IAr, which is believed to date from a somewhat later period than Mal'ta and Buret'. L. IA. Krizhevskaja dug in a very important stratified site at the mouth of the Belaia River, where seven levels have been distinguished (Late Palæolithic to Iron Age). In the Neolithic strata, dwelling complexes and cult burials of dogs were uncovered. V. E. Larichev carried out excavations at a number of interesting Neolithic sites near Zaiarsk, Bratsk and Svirsk. E. F. Sedianka dug in the Ust'-Tal'kinsk cemetery and settlement of the Iron Age, and N. N. Zabelina continued work at a settlement of the same period in the Unga River valley. I. P. Garanin studied pictographs on the Kammenye Islands in the Angara River, and experimented with the bodily removal of selected specimens. A. V. Nikitin dismantled and transferred one of the towers of the historic Bratsk Ostrog (fort) to the Museum of Wooden Architecture at Kolomensk near Moscow.

Excavations were carried out by the Irkutsk Regional Studies Museum at the famous terminal Palæolithic site of Verkholskaia Gora near Irkutsk in order to check the stratigraphy, which was found not to conform to previous descriptions in some respects. There was determined to be no basis for considering it a stratified site.

A very unusual Palæolithic site, Titovskaia Sopka, was examined by Okladnikov and Larichev near Chita in the Trans-Baikal region. This is a quarry and workshop site; the finds are mainly blanks for disc-shaped and prismatic cores, flakes and crude blades. Nothing comparable is known at present in Siberia, Mongolia or China.

The Far Eastern Expedition, also directed by A. P. Okladnikov, continued its work in Khabarovsk Territory and the Maritime Territory. Near the city of Khabarovsk the excavation of a large stratified settlement was begun. Extensive reconnaissance was carried out in the valley of the Ussuri River, locating a number of sites of different periods. In the Vladivostok area, a Neolithic dwelling was excavated on Lake Khanka, and a stratified settlement (Neolithic and early Bronze Age) discovered at Artem. A settlement of the Shell Mound culture was investigated at Ekaterinovka on the Suchan River. Farther up the coast, near Tetiukhe, a new

Neolithic culture was discovered in Pkhusun Bay, characterized by prismatic blades from peculiar cores; unifacial blade arrowpoints reminiscent of northern Yakutia, the Kolyma and Chukotka; bifacial points, shouldered drills and micro-scrappers. Okladnikov (personal communication) is inclined to view it as representing the penetration of some arctic group; links with pre-ceramic Hokkaido are also seen. A reconnaissance of the coast by G. I. Andreev located more than twenty new sites in Lazovsk, Ol'ginsk and Khasansk districts.

Large-scale salvage archæology around the shores of Lake Baikal in connection with the Irkutsk hydro-electric project was carried out by the Baikal (Irkutsk) Expedition directed by M. P. Griaznov, which operated in thirteen sections. Of interest are the excavations at a settlement in Ulan-Khada cove where six levels were identified. The lowest, although labelled 'Mesolithic', apparently contains pottery of the earliest Baikal type; above this are full Neolithic, Eneolithic and Iron Age occupations. Adjacent are five cemeteries (Neolithic and Eneolithic), in which 23 burials were opened. A number of sites of the same periods were excavated in the Listvianka area, while in the delta of the Selenga River a Neolithic settlement and undisturbed burials of the Bronze Age Slab Grave culture were studied. M. M. Gerasimov opened 45 Neolithic and Eneolithic burials in the famous Fofanovo cemetery in the latter area, while on Cape Uliarba cemeteries and a settlement of the same age were investigated by L. P. Ziablin and V. S. Sorokin. In Shide cove, 14 Neolithic graves were discovered in which the dead had been buried in a squatting position. On Ol'khon Island a sacrificial place of Neolithic-Eneolithic age was studied. Metal age sites were investigated north of the Selenga delta; and 120 graves in a Kurykan (Iron Age) cemetery near Lake Nure were opened by A. M. Mandel'shtam. Elsewhere, similar graves were excavated by S. S. Chernikov and V. S. Sorokin; also a stone-walled settlement of this period on Cape Shibet.

The Mongol Expedition, directed by S. V. Kiselev, continued investigations in Chita province. Reconnaissance along the Onon River located a large number of sites (Neolithic to medieval). Stationary excavation work focused on the 13th century A.D. fortified town (*gorodishche*) of Khirkhira, where a palace with a complicated heating system was cleared, and the fortifications and adjoining structures of the citadel investigated. A large kurgan was opened on a nearby mountain, revealing the richly equipped grave of a youth of the local ruling family.

An expedition directed by S. I. Rudenko undertook the opening of the grave pit of the Berel'sk kurgan in the Altai Mountains. Excavations had earlier been conducted here by V. V. Radlov. Wood samples were collected in order to determine the date of the kurgan by the C14 method.

M. G. Levin continued his excavations in the ancient Eskimo cemetery at Uelen on Cape Dezhnev (East Cape). High point of the 1959 season was the discovery of an engraving tool with an iron point in a grave of the Old Bering Sea period.

The Magadan Regional Studies Museum continued its investigation of ancient Koryak settlements in that area.

BIBLIOGRAPHY

A number of important new aids to research in this area for the non-Russian reader are now available. Foremost among these is *Anthropology of Northern Eurasia: Translations from Russian Sources*, a major project administered by the Arctic Institute of North America with funds from the National Science Foundation, and directed by Dr Henry N. Michael of Temple University. It is hoped to publish around 1,500 pages annually of the most significant Soviet reports, most of which will deal with, or be relevant to, the prehistory and culture history of Northeast Asia. For further details, see *Current Anthropology*, 1, 4, p.336 (July, 1960). Another project, the *Russian Translation Series of the Peabody Museum of Archaeology and Ethnology, Harvard University*, unfortunately got off to a poor start in Volume I, but has now come under the competent editorial supervision of Dr Paul Tolstoy; we may expect subsequent volumes to conform to the high standards we have a right to expect under the Harvard imprint. The first number, *Ancient Population of Siberia and Its Cultures*, by A. P. Okladnikov, is a sorry English translation of *Drevnee Naselenie Sibiri i ego Kul'tura* (see *AP*, 2, 1). *Archives of Archaeology*, the new microcard publication series of the Society for American Archaeology and the University of Wisconsin Press, edited by Prof. D. A. Baerreis, will include translations of a number of collections of Japanese source materials on the archaeology of the Kurile Islands, Sakhalin, and northern Japan.

Another useful new series is *Abstracts of New World Archaeology*, an annual publication of the Society for American Archaeology, edited by Prof. Richard B. Woodbury (University of Arizona). This will contain a regular section on the Old World Arctic giving abstracts of significant new publications in all languages. Much of Northeast Asia will be covered.

Also of interest is the appearance of an English edition of A. L. Mongait's useful general work, *Archaeology in the U.S.S.R.*, (Foreign Languages Publishing House, Moscow, 1959). Further, we should call attention to the fact that the two leading Russian journals, *Sovetskaia Arkheologiia* and *Sovetskaia Etnografiia*, now carry a table of contents in French at the end.

A major research and reference tool is available in the Bibliography of Soviet Archaeological Literature, 1941-57 (N. A. Vinberg, T. N. Zadneprovskaiia and A. A. Liubimova, *Sovetskaia Arkheologicheskaiia Literatura. Bibliografiia, 1941-1957*, Akademiia Nauk SSSR, Moscow-Leningrad, 1959). This invaluable work of 773 pages contains 434 titles on Siberia. There is a French table of contents at the end to assist in locating these. It should also be noted that the annual bibliography for 1957 is available in *Sovetskaia Arkheologiia*, 1959, 4 (Siberia: pp. 317-319). For 1953-1956 annual bibliographies, see previous issues of *AP*, e.g. 3(1), Summer 1959: 5-9.

Below are listed publications on Northeast Asia which have appeared since 1958, plus a few items not previously noted.

BOOKS AND ARTICLES

ABRAMOVA, Z. A.

- 1959 Pamiatniki Paleolita Nizov'ev r. Selengi (Palaeolithic Sites on the Lower Selenga River). *Arkheologicheskii Sbornik*, 1, 26-32, 98-102. Ulan-Ude.

Brief descriptions of 6 sites located in 1948-51 in previously unstudied area north of Ulan-Ude. The Oshurkovo site is reserved for separate publication.

ABRAMOVA, Z. A., A. P. OKLADNIKOV and E. F. SEDIANKA

- 1959 Arkheologicheskie Issledovaniia v Doline r. Angary v 1956 g. (Archaeological Investigations in the Valley of the Angara River in 1956). *Kratkie Soobshcheniia Instituta Istorii Material'noi Kul'tury*, 76, 33-41. Moscow.

Brief progress report on continued salvage work in the area of the Bratsk reservoir. Excavation of Neolithic cemeteries and a stratified settlement (Neolithic-Bronze-Iron).

ALEKSEEV, V. P.

- 1960 Eneoliticheskii Cherep iz Krasnoiarska (Eneolithic Cranium from Krasnoyarsk). *Kratkie Soobshcheniia Instituta Etnografii*, 34, 79-85. Moscow.

ANDREEV, G. I.

- 1959 Poselenie na Myse Sedlovom v Ussuriiskom Zalive (Settlement on Cape Sedlovom in Ussuri Gulf. *Kratkie Soobshcheniia Instituta Istorii Material'noi Kul'tury*, 74, 124-130. Moscow.

1955 excavations at a site very similar to the late Shell Mound culture, but lacking a shell midden and displaying some new ceramic traits.

ANDREEVA, Zh. V.

- 1959 Raskopki mezhdu Mysom Sedlovym i Poselkom IUzhnym v Ussuriiskom Zalive v 1955 godu (Excavations between Cape Sedlovom and IUzhnyi Settlement in Ussuri Gulf in 1955). *Akademiia Nauk SSSR, Sibirskoe Otdelenie, Dal'nevostochnyi Filial. Trudy, Seria Istoricheskaiia*, 1, 117-126. Saransk.

Excavation report on late shell mound site, with discussion of other shell mounds in the Far East. Tables of faunal remains. No illustrations.

ARKHIPOV, S. A.

- 1960 Stratigrafia Chetvertichnykh Otlozhenii, Voprosy Neotektoniki i Paleogeografii Basseina Srednego Tcheniia Eniseia (Stratigraphy of Quaternary Deposits, Problems of Neotectonics and Palaeogeography of the Middle Yenisei Basin). *Trudy Geologicheskogo Instituta*, 30. Moscow.

Covers the Yenisei valley between Bakhta and Turukhansk. Based on recent field work plus collation of all previous data. Includes Holocene.

BUSHNELL, GEOFFREY and CHARLES MCBURNEY

- 1959 New World Origins seen from the Old World. *Antiquity*, 33, 130, 90-101. Newbury.

Suggests an earlier dating for the Siberian Palaeolithic and a true Mousterian element which might have given rise to pressure-flaked bifacial points, as happened in Europe. The authors still feel that Upper Palaeolithic blade cultures played a major role in the origin of the New World Palaeo-Indian hunting cultures. (An alternative hypothesis to that advanced by C. S. Chard in the preceding issue of *Antiquity*).

CHARD, CHESTER S.

- 1959a Kita Ajia Sekki Jidai Bunka Ryoiki (Stone Age Culture Areas of Northern Asia). *Minzokugaku Kenkyu*, 23, 4, 51-54. Tokyo. (English abstract)

- 1959b Old World Sources for Early Lithic Cultures. *Actas del XXXIII Congreso Internacional de Americanistas*, 1, 314-320. San Jose, Costa Rica.

- 1959c Archæological Work near Magadan. *Anthropological Papers of the University of Alaska*, 8, 1, 77-78. College.

Summary of 1955-56 Soviet field work.

- 1959d The Western Roots of Eskimo Culture. *Actas del XXXIII Congreso Internacional de Americanistas*, 2, 81-87. San Jose.

A critique of current theories of Old World origins for the Bering Sea maritime cultures.

- 1960a Northwest Coast-Northeast Asiatic Similarities: a New Hypothesis. *Selected Papers of the Fifth International Congress of Anthropological and Ethnological Sciences*, pp. 235-240. Philadelphia.

Suggests that the cultural unity of the North Pacific rim might derive from a common ancient substratum of Eskimo-like culture.

- 1960b Japanese Source Materials on the Archæology of the Kurile Islands. *Archives of Archæology*, 7. University of Wisconsin Press, Madison. (Microcard)

Translations of all relevant reports of Japanese archæological work in the area, with an introduction. 391 pages, numerous illustrations.

- 1960c Recent Archæological Work in the Chukchi Peninsula. *Anthropological Papers of the University of Alaska*, 8, 2, 119-130. College.

Summary of 1956-57 Soviet field work.

- 1960d Some Reflections on New World Origins as seen from Asia. *Science in Alaska, 1958* (Proceedings of the 9th Alaskan Science Conference), p.5. College. (Abstract)

- 1960e The Neolithic in Northern Asia: a Culture Area Approach. *Anthropologica*, n.s., 2, 2, 240-248. Ottawa.

Proposed classification with discussion; includes map and chart. The headings 'Pacific' and 'East-Central' have been transposed in the chart through typographical error.

- 1960f Routes to Bering Strait. *American Antiquity*, 26, 2, 283-285.

Available migration routes during the Pleistocene from ice-free Asia to Alaska, with map.

CHUBAROVA, R. V.

- 1959a Arkheologicheskie Issledovaniia v 1956 godu na Ostrove Sakhaline (Archæological Investigations in 1956 on Sakhalin Island). *Kratkie Soobshcheniia Instituta Istorii Material'noi Kul'tury*, 73, 115-121. Moscow.

Brief preliminary report of reconnaissance in the virtually unknown northern portion.

- 1959b Neoliticheskaiia Stoianka v Ust'e Reki Susui na Ostrove Sakhaline (Neolithic Site at the Mouth of the Susui River on Sakhalin Island). *Akademiia Nauk SSSR, Sibirskoe Otdelenie, Dal'nevostochnyi Filial. Trudy, Serii Istoricheskaiia*, 1, 96-116. Saransk.

Report of test excavation in 1955 to determine stratigraphy of this badly-gutted site. Discussion of significance and relationships of the materials recovered.

- 1960 Neoliticheskii Stoianki na o. Iturupe (Neolithic Sites on Iturup Island). *Sovetskaiia Arkheologiia*, 1960, 2, 128-138. Moscow.

A late Jomon site and Bergman's post-Jomon Rubetsu site. 1956 investigations.

DEVLET, M. A.

- 1958 Pogrebal'nye Sooruzheniia Tagarskoi Kul'tury (Burial Structures of the Tagar Culture). *Moscow University, Vestnik, Istoriko-Filologicheskaiia Seriia*, 1958, 4(13, 4), 59-70.

Detailed study and analysis of 260 Tagar kurgans—size, shape, construction, burial practices. Identifies three periods, with three stages in the first period.

DIKOV, N. N.

- 1958a Drevneishee Proshloe Chukotki i Zadachi ego Izucheniia (The Ancient Past of Chukotka and the Problems of its Study). *Zapiski Chukotskogo Kraevedcheskogo Muzeia*, 1, 5-11. Magadan.

History of archæological work in the Chukchi Peninsula area, summary of present views, and problems yet to be solved. Extensive bibliography.

- 1958b Predvaritel'nyi Otchet o Rabote Arkheologicheskoi Ekspeditsii Chukotskogo Kraevedcheskogo Muzeia v 1956 godu (Preliminary Report on the Work of the Archæological Expedition of the Chukotka Regional Studies Museum in 1956). *Ibid*, 1, 32-44.

Summarized in the *Anthropological Papers of the University of Alaska*, 8, 2, 119-130.

- 1958c Predvaritel'nyi Otchet o Polevykh Arkheologicheskikh Issledovaniiax Chukotskogo Kraevedcheskogo Muzeia v 1957 godu (Preliminary Report on Archæological Field Studies by the Chukotka Regional Studies Museum in 1957). *Ibid*, 1, 45-57.

Summarized, *Idem*.

FAT'IANOV, A. D., editor

- 1960 Naskal'nye Risunki Kamennykh Ostrovov na Angare (Rock Drawings from the Kamen'nye Islands in the Angara). Published by the Irkutsk Oblastnoi Khudozhestvennyi Muzei, Irkutsk.

Pamphlet on the occasion of an exhibition of petroglyphs at the Irkutsk Art Museum (Neolithic and Early Bronze Age). Includes a paper by A. P. Okladnikov, 'Petroglyphs of the Bratsk Reservoir'.

FORMOZOV, A. A.

- 1959 Mikroliticheskie Pamiatniki Aziatskoi Chasti SSSR (Microlithic Sites in the Asiatic Part of the U.S.S.R.). *Sovetskaia Arkheologiya*, 1959, 2, 47-59. Moscow.

Surveys available data and concludes that the microlithic industries of Soviet Asia are all Neolithic in age. Their similarities are not due to close historical relationship as much as to common environmental and economic factors.

GARUTT, V. E. and K. B. IUR'EV

- 1959 Paleofauna Ivolginskogo Gorodishcha po Dannym Arkheologicheskikh Raskopok 1949-1956 gg. (Palæo-fauna of the Ivolga Gorodishche, based on Data from the 1949-56 Excavations). *Arkheologicheskii Sbornik*, 1, 80-82. Ulan-Ude.

GIDDINGS, J. L.

- 1960 The Archæology of Bering Strait. *Current Anthropology*, 1, 2, 121-138. Chicago.

A major assessment and critique of the present picture, including the Siberian Eskimo cultures. Appended comments by other specialists.

GOKHMAN, I. I.

- 1959 Antropologicheskaiia Kharakteristika Cherepov Ust'-Tal'kinskogo Mogil'nika v Pribai-kal'e (Anthropological Characteristics of Crania from the Ust'-Tal'kinsk Cemetery in the Baikal Area). *Arkheologicheskii Sbornik*, 1, 85-89. Ulan-Ude.

Five crania believed to fall in the 12th-16th centuries A.D. Of interest since no other material is available from this period. 1957 field work.

GOLUBEVA, L. V., R. E. GITERMAN, E. V. KORENEVA, and O. V. MATVEEVA

- 1960 Sporovo-Pyl'tsevyie Spektry Chetvertichnykh Otlozhenii Zapadnoi i Tsentral'noi Sibiri i Ikh Stratigraficheskoe Znachenie (Spore and Pollen Spectra from Quaternary Deposits in Western and Central Siberia and Their Stratigraphic Significance). *Trudy Geologicheskogo Instituta*, 31. Moscow.

These field studies in both glaciated and unglaciated regions cover the northern part of the West Siberian Lowland, the Altai region, the middle Lena, the Viliui district, and the upper valley of the Lower Tunguska.

GRIAZNOV, M. and A. P. BULGAKOV

- 1958 Drevnee Iskusstvo Altaia (Ancient Art of the Altai). Published by Gosudarstvennyi Ermitazh Muzei, Leningrad.

64 specimens, very largely from the Pazyryk tombs, illustrated on fine plates. Brief introduction. Parallel French text and captions. See below p. 16 for book review.

GROMOV, L. V.

- 1957 Sledy Starinnogo Zaseleniia na Ostrove Vrangelia (Traces of Old Settlement on Wrangell Island). *Letopis Severa*, 2, 155-156. Moscow.

Chukchi dwelling site, possibly 18th century.

GROMOV, V. I., editor

- 1960 Stratigrafiia Chetvertichnykh Otlozhenii Aziatskoi Chasti SSSR i Ikh Sopostavlenie s Evropeiskimi (Stratigraphy of the Quaternary Deposits of the Asiatic Part of the U.S.S.R. and their Correlation with the European). *Trudy Geologicheskogo Instituta*, 26. Moscow.

Collected papers dealing with areas studied since the war, and an attempt to fit the stratigraphy of each into a uniform scheme.

GUMILEV, L. N.

- 1959 Altaiskaia Vetv' Tiurok-Tugiu (The Altai Branch of the Turk-Tugiu). *Sovetskaia Arkheologiia*, 1959, 1, 105-114. Moscow.

Discusses Turkish graves and monuments in the Altai.

IUR'EV, K. B.

- 1959 Ostatki Domashnikh Zhivotnykh iz Kochevnicheskikh Pogrebenii (Remains of Domestic Animals from Nomad Burials). *Arkeologicheskii Sbornik*, 1, 83-84, 126. Ulan-Ude.

8th-14th century A.D. burials.

KHAMZINA, E. A.

- 1959 Neoliticheskoe Pogrebenie s Novoi Shishkovki (Neolithic Burial from Novaia Shishkovka). *Arkeologicheskii Sbornik*, 1, 127-130. Ulan-Ude.

A 1953 find. One of the few Neolithic graves known in Trans-Baikal outside of the Fofanovo cemetery.

KHOROSHIKH, P. P.

- 1960 Zoomorfnye Izobrazheniia na Neoliticheskoi Keramike iz Pribaikal'ia (Zoomorphic Representations on Neolithic Pottery from the Baikal Region). *Sovetskaia Arkheologiia*, 1960, 2, 228-229. Moscow.

Fish and waterfowl on two Kitoi stage sherds. First instances reported in this area.

KISELEV, S. V.

- 1959 Iz Rabot Mongol'skoi Arkheologicheskoi Ekspeditsii Instituta Istorii Material'noi Kul'tury AN SSSR (From the Work of the Mongol Archaeological Expedition of the Institute for the History of Material Culture, Academy of Sciences of the U.S.S.R.). *Uchenye Zapiski Instituta Vostokovedeniia*, 24, 200-202. Moscow.

Brief note on 1957 field work in Tuva and Trans-Baikal.

KYZLASOV, L. R.

- 1958 Etapy Drevnei Istorii Tuvy v Kratkom Izlozhenii (Periods in the Ancient History of Tuva; Brief Report). *Moscow University, Vestnik, Istoriko-Filologicheskaiia Seriia*, 1958, 4(13, 4), 77-99.

First trial periodization based on recent field work as well as previous data published and unpublished. Late Palæolithic through Iron Age.

- 1959 Srednevekoveye Goroda Tuvy (Medieval Cities of Tuva). *Sovetskaia Arkheologiia*, 1959 (3), 66-80.

Fortified towns of Uigur period (8th-9th centuries A.D.) and cities of Kara Kitai period (12th-13th centuries). 1956-58 field work.

LARICHEV, V. E.

- 1959a Neolit Dunbeia i ego Sviazi s Kul'turami Kamennogo Veka Severo-Vostochnoi Azii (The Neolithic of Dunbei and its links with Stone Age Cultures of Northeast Asia). *Arkeologicheskii Sbornik*, 1, 33-62, 103-119. Ulan-Ude.

Survey of published materials on Neolithic remains of Manchuria and vicinity, and discussion of relationships.

- 1959b O Proiskhozhdenii Kul'tury Plitochnykh Mogil Zabaikal'ia (On the Origin of the Slab Grave Culture of Trans-Baikal). *Arkeologicheskii Sbornik*, 1, 63-73, 120-125. Ulan-Ude.

Bronze Age steppe culture.

LAVROV, I. P.

- 1958 K Voprosu o Zagadochnom 'Krylatom Predmete' (Contribution to the Problem of the Enigmatic 'Winged Object'). *Zapiski Chukotskogo Kraevedcheskogo Muzei*, 1, 58-60. Magadan.

New light on a puzzling artifact of the Old Bering Sea culture.

LEVASHEVA, V. P.

- 1958 K Voprosu o Mestnykh Osobennostiakh v Pogrebeniakh Tagarskoi Kul'tury (Contribution to the Problem of Local Peculiarities in Burials of the Tagar Culture). *Sovetskaia Arkheologiia*, 1958 (1), 171-181.

Variants of standard Tagar burial practices not hitherto reported.

LEVIN, M. G.

- 1959 Ancient Eskimo Cemetery in Uelen (Chukotka). *Actas del XXXIII Congreso Internacional de Americanistas*, 2, 65-71. San Jose, Costa Rica.

1957 field work.

- 1960 Drevneeskimoskii Mogil'nik v Uelene (Ancient Eskimo Cemetery in Uelen). *Sovetskaia Etnografiia*, 1960 (1), 139-148. Moscow.

Preliminary report on 1958 excavations, with 14 illustrations. 23 burials of Old Bering Sea culture and later periods.

LEVIN, M. G. and D. A. SERGEEV

- 1960 K Voprosu o Vremeni Proniknoveniia Zheleza v Arktiku (Contribution to the Problem of the Date of the Arrival of Iron in the Arctic). *Sovetskaia Etnografiia*, 1960, 3, 116-122. Moscow.

The 1959 discovery of a graving tool with an iron point in a burial of the Old Bering Sea culture at Uelen.

MAKSIMENKOV, G. A.

- 1960 Bronzovye Kelty Krasnoiarsko-Angarskikh Tipov (Bronze Celts of Krasnoyarsk and Angara Types). *Sovetskaia Arkheologiia*, 1960, 1, 148-162. Moscow.

Typological study of 75 celts in museum collections (all undocumented) to work out evolution and distribution. Supersedes Merhart's work on the subject. In contrast to Minusinsk, the Bronze Age of the Krasnoyarsk area is little known. It may represent a separate culture area, differing from the Tagar of the Minusinsk and Altai regions.

MALOV, S. E.

- 1959 *Pamiatniki Drevnetiurkskoi Pis'mennosti Mongolii i Kirgizii* (Monuments with Ancient Turkish Inscriptions from Mongolia and Kirgizia). Akademiiia Nauk SSSR, Moscow-Leningrad. (111 pp.)

MAMONOVA, N. N. and R. F. TUGUTOV

- 1959 Raskopki Gunnskogo Mogil'nika v Cheremukhovoi Padi (Excavations in a Hun Cemetery at Cheremukhovaia Gorge). *Arkheologicheskii Sbornik*, 1, 74-79. Ulan-Ude.

Describes two graves opened in 1957 in a large cemetery just north of Kiakhta.

NAUCHNAIA KONFERENTSIIA PO ISTORII SIBIRI I DAL'NEGO VOSTOKA.

- 1960 *Sektsiia Arkheologii, Etnografii, Antropologii i Istorii Sibiri i Dal'nego Vostoka Dooktiabr'skogo Perioda. Tezisy Dokladov i Soobshchenii* (Scientific Conference on the History of Siberia and the Far East. Section of Archaeology, Ethnography, Physical Anthropology and History of Siberia and the Far East in the Period before the October Revolution. Abstracts of the Reports and Communications). Irkutsk, (281 pp.)

Contains many reports of important recent field work.

NIKOLAEV, R. V.

- 1960a Nekotorye Voprosy Ethnogeneza Narodov Krasnoiarskogo Severa (Certain Problems of the Ethnogenesis of the Peoples of Northern Krasnoyarsk Territory). *Kratkie Soobshcheniia Instituta Etnografii*, 34, 61-68. Moscow.

Recent Bronze Age finds utilized in reconstructing ethnic history of the area.

- 1960b Arkheologicheskie Nakhodki na Severe Krasnoiarskogo Kraia (Archaeological Finds in the North of the Krasnoyarsk Territory). *Sovetskaia Arkheologiia*, 1960 (1), 254-256. Moscow.

Various unpublished finds (Neolithic and Bronze Age) from this archaeologically unknown area. Resemblances to Baikal Neolithic noted.

OKLADNIKOV, A. P.

1959a Paleolit Zabaikal'ia. Obshechii Ocherk (The Palæolithic of Trans-Baikal. General Outline). *Arkheologicheskii Sbornik*, 1, 5-25, 90-97. Ulan-Ude.

Describes general characteristics and discusses age, history and significance. Includes roster of sites.

1959b Raboty na Dal'nem Vostoke v 1956 godu (Work in the Far East in 1956). *Kratkie Soobshcheniia Instituta Istorii Material'noi Kul'tury*, 73, 107-114.

Brief preliminary progress report on excavations in the Vladivostok area. Sites range from Palæolithic to medieval.

1959c Tripody za Baikalom (Tripods in Trans-Baikal). *Sovetskaia Arkheologiia*, 1959 (3), 114-132.

Occurrences of pottery tripods of Chinese type (*li* and *ting*): description, distribution, dating and significance.

1959d Bronzovyi Mech iz Iakutii (A Bronze Sword from Yakutia). *Sovetskaia Arkheologiia*, 1959, 3, 133-136.

Find from Aldan River with close analogy in Manchuria.

1959e *Dalekoe Proshloe Primor'ia* (The Distant Past of the Maritime Territory). Vladivostok. (292 pp., 84 figs.)

First major work on the prehistory of the Vladivostok area. Chapters cover: history of archaeological investigation, Palæolithic, Neolithic, Shell Mounds, Transition to Metal, Protohistoric and Historic Tribes and States.

1959f Nachalo Zheleznogo Veka v Primor'e (Beginning of the Iron Age in the Maritime Territory). *Akademiia Nauk SSSR, Sibirskoe Otdelenie, Dal'nevostochnyi Filial. Trudy, Seriia Istoricheskaiia*, 1, 13-36. Saransk.

New sites of 5th-3rd centuries B.C. partially fill the hiatus between the Shell Mound culture and early medieval remains. Analogies in Liaotung.

1959g Ancient Cultures in the Continental Part of North-East Asia. *Actas del XXXIII Congreso Internacional de Americanistas*, 2, 72-80. San Jose.

Survey of the interior or continental Neolithic of the Kolyma and Chukchi Peninsula. Two chronological stages distinguished. Discussion of the relationships of this culture and of the coastal (Eskimo) culture.

1959h The Role of the Ancient Baikal Region in the Cultural Relations between East and West. *International Symposium on History of Eastern and Western Cultural Contacts (Tokyo-Kyoto, 1957), Collection of Papers Presented*, pp. 141-143. (Japanese National Commission for UNESCO). Tokyo.

Widespread relationships through the forest zone.

1960a Archaeology of the Soviet Arctic. *Acta Arctica*, 12, 35-45. Copenhagen.

Paper presented at Circumpolar Conference in Copenhagen (1958). Brief regional survey of archaeological knowledge of the Soviet Arctic, plus an outline history of northern Asia as seen by the author.

1960b Die alten Kulturen der russischen Seeprovinz im Lichte neuer Forschungen. *Minzokugaku Kenkyu*, 24, 1-2, 15-32. Tokyo.

Concise summary of present archaeological picture in the Vladivostok area.

1960c A Note on the Lake El'gytkhyn Finds. *American Antiquity*, 26, 1.

Addendum to article by Okladnikov and Nekrasov. *Ibid*, 25, 2.

OKLADNIKOV, A. P. and A. P. PUMINOV

1959 Neoliticheskie Pamiatniki v Doline Reki Olenek (Neolithic Sites in the Valley of the Olenek River). *Trudy Nauchno-Issledovatel'skogo Instituta Geologii Arktiki Ministerstva Geologii i Okhrany Nedr SSSR*, 65 (Sbornik Statei po Geologii Arktiki, 13), 73-78. Leningrad.

Supplementary excavations in 1957 at the two sites previously reported. Terminal Neolithic or initial Early Bronze Age, related to culture of northern Yakutia.

OKLADNIKOV, A. P. and V. D. ZAPOROZHSKAIA

1959 *Lenskie Pisanitsy* (Pictographs of the Lena). *Akademiia Nauk SSSR, Moscow-Leningrad*. (65 figs., 52 pls., 144 pp.)

Detailed study of the pictographs at Shishkino village on the headwaters of the Lena, which are unequalled in Siberia. Describes and illustrates 1,002 drawings ranging from Palæolithic to 18th century A.D. Includes historical analysis and discussion of significance.

POTAPOV, L. P.

1959 Nekotorye Itogi Rabot Tuvinskoi Ekspeditsii (Certain Results of the Work of the Tuva Expedition). *Sovetskaia Etnografiia*, 1959 (5), 109-122. Moscow.

1957-58 field work in the remote, archæologically unknown high mountain region of western Tuva. 68 sites of Early Nomad, Hun-Sarmatian, Turkish and later periods.

RYGDYLOV, E. R.

1958 Pisanitsy bliz Oзера Shira (Pictographs near Lake Shira). *Sovetskaia Arkheologiia*, 29-30, 186-202.

Unpublished group of pictographs in the Minusinsk Basin.

RYGDYLOV, E. R. and P. P. KHOROSHIKH

1959a Kolleksiia Bronzovykh Kotlov Irkutskogo Muzeia (The Collection of Bronze Cauldrons in the Irkutsk Museum). *Sovetskaia Arkheologiia*, 1959 (1), 253-258.

Description and discussion of 5 Scythian cauldrons and 2 miniature votive cups from the Baikal region.

1959b Arkheologicheskie Nakhodki u Oзера Aliat (Archæological Finds at Lake Aliat). *Sovetskaia Arkheologiia*, 3, 209-212.

Late Palæolithic and Neolithic materials from reconnaissance of the lake shore (Irkutsk Province).

SAIAPIN, A. K. and N. N. DIKOV

1958 Drevnie Sledy Kamennogo Veka na Chukotke (Ancient Traces of the Stone Age in Chukotka). *Zapiski Chukotskogo Kraevedcheskogo Muzei*, 1, 17-31. Magadan.

Describes the balance of the finds from Lake El'gytkhyn which was not sent to Leningrad and hence not available to Okladnikov for study. (See the latter's papers in *American Antiquity*, 25, 2, and 26, 1). The authors' interpretations differ from those of Okladnikov. Summarized in *Anthropological Papers of the University of Alaska*, 9(1), 1-10.

SERGEEV, D.

1959 Pervye Drevneberingmorskie Pogrebeniia na Chukotke (The First Old Bering Sea Burials in Chukotka). *Kratkie Soobshcheniia Instituta Etnografii*, 31, 68-75. Moscow.

First finds from the Uelen cemetery, salvaged from destroyed graves.

1960 Nykshak (Nykshak). *Kratkie Soobshcheniia Instituta Etnografii*, 33, 82-83.

A new artifact type from a Punuk stage Eskimo site.

SHAVKUNOV, E. V.

1959 Primor'e i Sosednie s Nim Raiony Dunbeia i Severnoi Korei v I-III Vekakh Nashei Ery (The Maritime Territory and Adjacent Regions of Manchuria and Northern Korea in the 1st-3rd centuries A.D.). *Akademiia Nauk SSSR, Sibirskoe Otdelenie, Dal'nevostochnyi Filial. Trudy, Seriia Istoricheskaia*, 1, 37-74. Saransk.

Based on archæological data and Chinese historical sources. Identifies the Ilou tribes in this area as early as the 1st century A.D. Subsequent entry of new peoples and rise of tribal confederacies.

SHIMKIN, DEMITRI B.

1960 Western Siberian Archæology, An Interpretative Summary. *Selected Papers of the Fifth International Congress of Anthropological and Ethnological Sciences*, pp. 648-661. Philadelphia.

Valuable discussion of the ecological background of West Siberian archæology, plus summary of developmental sequence. Map, list of sites, extensive bibliography.

SMOLIAK, A. V.

1959 Nekotorye Voprosy Drevnei Istorii Narodnostei Priamuria i Primor'ia (Certain Problems in the Ancient History of the Population of the Amur and Maritime Territory). *Sovetskaia Etnografiia*, 1959 (1), 29-37.

Critical discussion of the available information from historical sources and its use (or misuse) by archæologists.

VOROB'EV, M. V.

1959a O Rabotakh Voroshilovskogo Otriada v 1956 godu (The Work of the Voroshilov Section in 1956). *Kratkie Soobshcheniia Instituta Istorii Material'noi Kul'tury*, 73, 122-125.

Progress report on excavations at the medieval site of Krasnoyarsk Sopka near Ussuriisk (Maritime Territory). Dwelling structures were the centre of attention in 1956.

- 1959b Starinnye Kitaiskie Monety iz Sobraniia Khabarovskogo Muzeia (Ancient Chinese Money in the Collections of the Khabarovsk Museum). *Sovetskaia Arkheologiia*, 1959 (3), 194-205.

Illustrated descriptive catalogue, with comments, of 190 coins representing 65 types, 4th century B.C. to 16th century A.D.

ZAMOTORIN, I. M.

- 1959 Otnositel'naia Khronologiia Pazyrykskikh Kurganov (Relative Chronology of the Pazyryk Kurgans). *Sovetskaia Arkheologiia*, 1959 (1), 21-30.

Based on dendrochronology.

Book Reviews

BERGSLAND, KNUT: *Aleut Dialects of Atka and Attu*. Demitri Shimkin in *American Anthropologist*, **62**, 4, 729-730. (Reviewer raises the possibility of a Chukchean-Eskimoan language family, and sees at least the virtual certainty of ancient contacts).

GRIAZNOV, M. and A. P. BULGAKOV: *Drevnee Iskusstvo Altaia*. S. I. Rudenko in *Sovetskaia Arkheologiia*, 1960, **1**, 312-315.

OKLADNIKOV, A. P.: *Ancient Population of Siberia and its Cultures*. Chester S. Chard in *Science*, **130**, 1467-1468 (November 27, 1959) and in *Archæology*, **13**, 3, 228.

Henry N. Michael in *American Anthropologist*, **62**, 4, 721-722.

Paul Tolstoy in *American Antiquity*, **26**(1), 136-137.

Korea

KIM WON-YONG

Received 17 August 1960

Archæological activities in Korea have been more active last year than in former times and they promise to increase next year.

The Korea University was permitted by the Government to excavate a shell-mound at Ungch'on, and is thus the first institution to carry out archæological work. Previously this had been done by the National Museum, which had the sole legal authority to do so. Although no universities in Korea have departments of archæology, this step of the Government opens the way for them to do archæological excavations with official authorization assisted by specialists officially assigned to supervise the work.

Two universities in Seoul and two in the provinces have separate museum buildings with permanent displays.

FIELD WORK AND RESEARCH

Survey of ancient tombs in Cheju Island. July 1959.

Lect. Chulchoon Kim joined the Seoul National University's scientific expedition to Cheju Island, the large island off the south coast, and made a surface survey of several stone-chambered tombs which he claimed to be dolmens. These tombs had all been destroyed long ago but he could pick up some potsherds and stone implements. Detailed account of the survey appears on the Seoul National University *Collection of Theses*, 9.

This is the first report of the existence of dolmens in that island although all of the reported tombs may not necessarily be dolmens.

2. Excavation of Ungch'on Shell-mound. October 1959.

The proto-historic shell-mound is located on top of Mt. Chama near the town of Ungch'on which lies to the west of Pusan. It was excavated by a party from the Korea University led by Prof. Jonghak Kim. The present reporter from the National Museum also participated in the month-long excavation. A report is being prepared.

3. Excavation of Kam-eun-sa Temple site near Kyongju. Dec. 1959 to Jan. 1960.

The Silla temple constructed in A.D. 682 has long been a ruined site without any original structures remaining except the two stone pagodas. The National Museum led by Dr Chewon Kim, Director, excavated the site and revealed the original plan of the temple. The party also supervised the reconstruction of one of the twin pagodas on the site from which a magnificent bronze Sarira shrine was discovered. It was

placed just below the roof stone of the topmost story of the three-storied stone pagoda. A report will come out this September.

4. New discovery of dolmens in Kyongsang-do Province. February 1960.

Existence of dolmens at the village of Sokma-ri near Kosong was reported by a villager and the site was investigated by this reporter. They are ten 'southern type' dolmens lined up in east-west direction.

Several other dolmens were also discovered at other parts of the Kosong area.

Seven dolmens were newly reported by local authorities of Miryang area.

5. Discovery of a neolithic site on the north bank of the Han River near Seoul. August 1960.

Mr David W. Chase of U.S. 8th Army in Korea discovered a neolithic site at the hamlet of Soksil-li on the north bank of the Han River which lies some fifteen miles to the east of Seoul. On the opposite bank slightly to the south lies Amsari, the famed site of 'comb pattern pottery'.

On August 7 Mr Chase and this reporter went to the site which is a dwelling site on a hill top overlooking the Han, and made a test dig. The occupational level is covered by a layer of sandy clay of reddish hue with a depth of about 10 in. Below the debris stratum is weathered schist hardpan.

Some stone implements and a large amount of plain coarse (grit tempered) potsherds were gathered. A few pieces of the comb-pattern pottery picked up at the exposed sloping area show this site to be important and interesting. A major excavation will be carried out this fall.

See pp. 141-149 for the illustrated article of David Chase.

BIBLIOGRAPHY

Books and Articles

In Korean

CHAI PYONGSO 蔡秉瑞

- 1959 Anak Pukun Pyokhwa Kobun Palkul Poko 安岳附近壁畫古墳發掘報告 (Notes on the Excavation of the Ancient Tombs with Wall Painting), *Journal of Asiatic Studies*, 2, 2.

The author joined the excavation of the tomb which is located in north Korea before he fled to south Korea in 1950. This is his account of the tomb which has been also reported by the north Koreans. The tomb is richly decorated with murals and carries an inscribed date corresponding to the year A.D. 357. The tomb is of a Chinese refugee who came from Manchuria. This is the first and only decorated tomb which carries a definite date, and thus throws a new light on the problem of the beginning of Koguryo decorated tombs. To be continued in next issue.

MINISTRY OF EDUCATION

- 1959 *Kukbo Torok* 國寶圖錄 (National Treasures Illustrated), 3, Sculptures. 104 pls. Seoul.

An illustrated catalogue of Buddhistic sculptures registered as National Treasures of Korea.

KIM CHUL-CHOON 金哲堉

- 1959 Chejudo Chisokmyo Chosa Poko 濟州島支石墓調查報告 (On the Dolmens of Cheju Island), *Seoul University Journal*, Humanities and Social Sciences, 9.

A detailed account of the six tombs in the island investigated by Mr Kim. Since all these tombs had been disturbed and robbed of their contents, clear and exact status of original condition is not obtainable. From several of these stone chambered tombs Mr Kim picked up some potshards both of early and later proto-Silla type. From No. 4 tomb at Orari, he found a polished stone chisel or adze. Since the island had been the only area where no dolmens were found, his report is an important document although his term 'dolmen' may be controversial.

KIM WON-YONG 金元龍

- 1959 Koguryo Kobun Pyokhwa e issoso eui Pulkyochok Yoso 高句麗古墳壁畫에이러서의佛敎的要素 (Buddhistic Elements in the Koguryo Tomb Paintings), *Paek Ssong-uk Paksa Songsu Kinyom Pulkyohak Nonmunjip* (Collected Essays on Buddhism Commemorating the Sixtieth Birthday of Dr Paek), Seoul.

Analysis of Koguryo tomb paintings from the view point of Buddhistic elements. Considerable influence from northern Chinese and Central Asiatic Buddhistic art are noticed.

- 1960 Yong-dong Yujonri Chisokmyo eui T'uk-eui Kujo wa Pujangp'um 永同楡田里支石墓의特異構造と副葬品 (The Peculiar Structure of a Dolmen at Yujonri and the Stone Implements), *Yoksa Hakbo* (The Korean Historical Review), 12.

This is a report of a dolmen at Yong-dong which was destroyed by the villagers in May 1959. The stone implements were later submitted to the National Museum. The dolmen was originally a huge granite slab measuring 3 m. by 2.5 m. and 1 m. thick, rested on several smaller stones. Four layers of flat stones covering an area smaller than the dimension of the top stone were found under the ground. Each stone layer is separated from the other by a soil stratum of 3 cm. in depth. From these soil strata came eight arrow-heads, two daggers and one chisel all finely polished.

(NORTH KOREA) INSTITUTE OF ARCHÆOLOGY AND ETHNOLOGY, *Archæological Material Series*, 2.

- 1959 *Taedongkang mit Cheryongkang Ryuyok Kobun Palkul Poko* (Reports on the Excavations of Ancient Tombs on the Reaches of the Taedong and Cheryong Rivers) Pyongyang.

This is the report of tombs in seven areas in north Korea excavated between 1954 and 1957. Tombs of both Koguryo period and earlier metal age. The one Koguryo tomb in Tae-an-ri has wonderful mural paintings of genre and the four deities.

—, *Report of Excavation of Ancient Sites*, 6.

- 1959 *Kangkye Shi Kongkwiri Wonshi Yujok Palkul Poko* (Report on the Excavation of Prehistoric Sites at Kongkwiri, Kangkye), Pyongyang.

This is the report of a prehistoric dwelling site in Kangkye in north central Korea. The site revealed several pit-dwellings of square shape with furnace in the centre. Considerable quantities of polished as well as chipped stone implements together with plain potteries were discovered.

In Japanese

ARIMITSU, Kyôichi 有光教一

- 1959 *Chôsen Masei Sekken no Kenkyû* 朝鮮磨製石剣の研究 (Studies on Polished Stone Daggers of Korea), Kyôto University.

An important study on Korean stone daggers. Detailed information and analysis of every important site and discovery related to the object prior to 1945. Nature and background of Korean prehistoric stone daggers are superbly presented. A major contribution.

UMEHARA, Sueji 梅原末治 and R. FUJITA 藤田亮策

- 1959 *Chôsen Kobunka Sôkan* 朝鮮古文化綜鑑 (Ancient Korean Culture Illustrated) 3, *Lolang Period*, Part B, Kyoto.

Vol. 3 of the new series of Album of Korean Antiquities being published since 1945. Vol. 1: Pre-Lolang period. Vol. 2: Lolang period Part A. This volume carries an article 'Burial System of Lolang' together with 100 plates of various objects from Lolang tombs.

LHEE, CHIN HYE 李進熙

- 1959 *Senggo no Chôsen Kôkogaku no Hatten—Shoki Kinzoku Bunkaki* 戦後の朝鮮考古學の發展—初期金屬文化期 (The Postwar Development of Korean Archaeology—Early Metal Age), *Kôkogaku Zasshi*, 45, 1.

Summary in Japanese of the archaeological activities in north Korea related to the early metal age. The article introduces 4 pit graves, 1 stone cist, 1 dolmen, 2 jar-coffin, all located in the vicinity of Pyongyang, and 1 cairn, 1 pit grave in Hwang-hai-do province as well as several isolated bronze objects. The summary is based on various post-war reports published in north Korea.

NAKAGIRI, I. 中吉功

- 1959 *Hwa-om-sa Shari Tō Chōzō Kō* 華嚴寺舍利塔彫像考 (Study on the Image Engraved on the Stone Stupa at Hwa-Om-sa Temple), *Chôsen Gakuhō*, (Journal of the Academic Association of Koreanology in Japan) 14, Nara.

The author attributes the standing figure of a monk on the base stone to Priest Fa-tsang of the T'ang Dynasty and places the stupa in the reign of King Kyongdok (742-764).

MIKAMI, Tsugio 三上次男

- 1959 Chosen ni okeru Yumondoki no Bumpu to sono Bunka no Hirogari ni tsuite 朝鮮に於ける有文土器の分布としての文化の擴りについて (On the Distribution of Prehistoric Ornamented Pottery and the Extent of its Culture in Korea), Ibid.

The author introduces a new theory that the so-called Comb Pattern Pottery sites which had been generally believed to be associated with reaches of rivers and sea-shores, are not to be limited to these areas but they are found in inland regions. His theory is based on his new study of such sites discovered before 1945 by the late Prof. Yokoyama. However the author's conclusion seems to be misleading because of his lack of knowledge of Korean geography. Those sites discovered by Prof. Yokoyama and regarded by Prof. Mikami to be inland sites are actually located alongside the Han River.

UMEHARA, Sueji 梅原末治

- 1959 Naju Pannammyon no Hōkan 羅州潘南面の寶冠 (Gilt Bronze Crown from Pannammyon, South Cholla Province), Ibid.

Study of a gilt bronze crown discovered from a jar-coffin in Naju in 1917-18. He thinks that the crown represents an earlier cultural stage compared to those of Kyongju mounded tombs.

ARIMITSU, K. 有光教一

- 1959 Kyongju Wolsong Taegu Talsong no Jōheki ka no Iseki ni tsuite 慶州月城大邱達城の城壁下の遺蹟について (On the Remains under the Castle Walls of Kyongju Wolsong and Taegu Talsong), Ibid.

Detailed report on the two sites of protohistoric time. The two sites are known for a long time but detailed accounts have not been published.

KOIZUMI, A. 小泉顯夫

- 1959 Kanshuji Shūcho to Koguryo no Hekiga Monyō 勸修寺繡帳と高句麗の壁畫文様 (Embroidered Curtain at Kanshuji Temple and Pattern on the Mural Paintings of Koguryo), Ibid.

Comparative study of certain designs on the curtain and Koguryo mural paintings.

In English

KIM CHEWON 金載元

- 1960 Treasures from the Songyimsa Temple in South Korea. *Artibus Asiae*, 21, 1/2.

Report of the Sarira shrine found from a brick pagoda at the temple near Taegu in April, 1959 during the reconstruction work of the pagoda.

Dr Kim in his report dated the object to be early Silla period (not specified, 7th century?). Some think the date may be pushed down. The pagoda was originally constructed during the Silla period but it apparently underwent a major repair work during the Koryo period (918-1392).

KIM WON-YONG 金元龍

- 1960 *Studies on Silla Pottery*. National Museum of Korea Publication Series A, 4. Seoul.

A monograph in English with Korean résumé. Study of Silla pottery (peak: A.D. 4th-7th century). Problems taken up: Beginning of Silla pottery; Stylistic differences and dates of various regional sub-groups.

Japan

J. EDWARD KIDDER, JR.

Received 23 September 1960

GENERAL COMMENTS

Japanese archæologists have been extremely active in their excavations and pressed with emergency salvage measures as the new highway construction programmes and industrial expansion move rapidly ahead. Archæologists have focussed their attention on the remarkable antiquity of the appearance of pottery in Japan as implied in two radiocarbon dates.

The tests conducted on obsidian to ascertain a date for the most recent surface working on the artifact, include a number of pieces from Japan (I. Friedman and R. Smith, A new dating method using obsidian: Part I, The development of the method, *American Antiquity*, **25**, 4, 509-510). At the risk of joining the benighted ones who reach their conclusions prematurely with insufficient evidence, the contributor would like to take this opportunity to make a few comments, though perhaps not drawing any radical conclusions.

The authors stress caution at this stage until greater perfection of the methods can be brought about and consideration given more fully to certain relative factors; but the number of satisfactory correlations with radiocarbon dates is obviously very large, and therefore an effort must be made to determine why discrepancies exist.

First, it need not be assumed that the radiocarbon dates are entirely accurate, and it is conceivable that correspondence between obsidian and an inaccurate radiocarbon date may happen. The radiocarbon dates for Japan are as yet rather few in number, and the five that are generally known suggest the time spread of each sub-division, within the Jōmon period, remains quite broad in range. The verification for these time spans will come mainly when far more radiocarbon samples are processed and their results known.

These dates have been placed in their relative position on a folding chart of the Jōmon period pottery chronology at the back of *Sekai Kōkōgaku Taikei*, 1, *Japan* I, and are given here:

Earliest Jōmon	(early)	Natsushima	Kantō	7491 ± 400 B.C.
Earliest Jōmon	(late)	Kishima	Chūgoku	6443 ± 350 B.C.
Early Jōmon	(late)	Kamo	Kantō	3145 ± 400 B.C.
Middle Jōmon	(late)	Ubayama	Kantō	2563 ± 300 B.C.
Latest Jōmon	(early)	Kamigawa	Kantō	1222 ± 180 B.C.

The time gap of more than three thousand years from Earliest to Early Jōmon appears extraordinary, particularly when compared with the neat sequential charts usually drawn up for Jōmon chronology, and related thereto is the implied early

appearance of pottery. To this contributor it requires a considerable stretch of the imagination particularly if agriculture is so late in showing; but there is at present no reasonable grounds to question the general accuracy of the later three dates. And, in spite of strong theories that developments proceed rather uniformly in a given area, and that stress the dependence of most regions on the Kantō, these radiocarbon dates may begin to suggest (what this contributor believes they will eventually prove) that changes rarely took place on a co-ordinated front and in precise order, and that the dynamic centres of Jōmon Japan were constantly shifting.

These long time gaps allow for considerable latitude. Obsidian dates may be said to have more range correspondence than in areas where radiocarbon dates have narrowed the time divisions more sharply. Perhaps this is one reason why one gets the impression, without working out any statistics from the charts, that the number of satisfactory correspondences in these dates for Japan is at least the average of and probably above the general average of other areas.

The text of this study does not specify how many tests were made on each sample, but from the view-point of the fifteen tests indicated, eight stood to be corresponding with radiocarbon dates. Of these, two are satisfactory, and among the five Jōmon period tests, one is not far off. Three are close to three thousand years too recent, while the fourth is about two thousand years too old. It is safe to presume that this consistency of error on the side of recentness is quite accidental. The inconsistency of the results of the tests on two of the samples is so pronounced (Gyusanbodai=Jūsanbodai and Kekeiyama) as to make an average of the tests on each rather meaningless, yet the Jūsanbodai average (4266.6) does, surprisingly enough, fall within the range of the latter part of the Early Jōmon period, as the period is determined by the radiocarbon date. The same cannot be said for Kekeiyama, and in this regard a Yayoi date calls for far greater exactitude.

Particularly appropriate seem to be the dates for the pre-pottery material from Uenodaira and Toro, yet without radiocarbon dates for cross-checking, other dates may have seemed also possible. They, however, fit well with the projected chronology of pre-pottery implement types as suggested by Sugihara in 1956, which was translated in *Japan Before Buddhism* (1959, p. 31), and while the author might make minor changes, the chronology stands essentially the same. This is summarized in the diagram here, with obsidian dates added:

<i>Humus</i>	<i>Jōmon period strata</i>	<i>Length of time</i>
Red loam	Uenodaira	11,000 and 9,100 years B.P.
	Takei II	
	Chausuyama	18,700 and 17,000
	Moro	
	Iwajuku II	
Gray loam	Takei I	
	Iwajuku I	

The only radiocarbon dates from the Kantō loam series that apply are Ekoda at $23,700 \pm 600$ and Shimosueyoshi at 30,000 (minimun) (*Radio-Carbon Supplement*

2, 1960, p. 54), and while Ekoda is actually of undetermined relationship to the loam, neither in any way conflict with the obsidian dates.

It need hardly be repeated that with the limited number of radiocarbon dates for prehistoric Japan, not too much stress should be placed on any one. The Yadegawa 'preceramic' obsidian dates, and if more like them appear, may point up a flaw in the 'co-ordinated front' reasoning. An average of these not-too-diverse dates for Yadegawa is 3900, or around 1940 B.C., a date that falls into the Late Jōmon (not Latest) bracket. At any rate much discrepancy exists here, but there has not as yet been enough allowance for regions of retarded growth and pockets of non-ceramic peoples during the early stages of Jōmon developments.

FIELD WORK AND RESEARCH

The Department of Archæology, Keiō University, moved to a new building; it occupies rooms in the basement and on the fourth floor. The basement rooms serve for its exhibitions, while on the fourth floor it has place for storage.

An archæological exhibition room and laboratory will open in the late fall at International Christian University. Located in the west end of the second floor of the Main Building, space has been made available in the old library area on the completion of the new library building.

One of the leading amateur collectors in Japan, Takashi Notogawa, proprietor of a butcher shop who died in 1959, left his fine collection to the Hakodate Museum. This collection is now on exhibit and includes complete pottery vessels of the Sumiyoshi type, and bone implements that came up with Eiyama type pottery from the Eiyama shell-mound.

At Nakanaki, Daito city in Osaka prefecture, in marshy land where the Kansai Electric Company is doing construction work, Yayoi period material was discovered. Mr Kobayashi of Kyoto University and Mr Tanabe from the Heian Senior High School went there immediately after receiving the report and during late July and early August retrieved pottery of the Karako I and III types, stone arrowpoints, axes and wood implements.

C. Kemyo and T. Onoyama of Kyoto University are now excavating the Doboyama tomb in Takatsuki city which is scheduled to be destroyed by the super highway planned in the Osaka area. So far two wooden coffins from two different places have been uncovered, one was surrounded by a bank of earth, and the other lay in an irregularly constructed stone chamber. From this chamber have been removed a stove painted with lacquer, body armour, a wooden box decorated with geometric patterns, and a bronze mirror. From other parts of the tomb have come five lacquer painted bows and pieces of armour.

Another tomb destined for removal because of the construction of housing units for Kinki Railway employees, a keyhole-shaped tomb on Tamateyama, Osaka prefecture, has been investigated by Dr Suenaga of Kansai University and Mr Kitano of Osaka University. This tomb apparently has two pit-style stone rooms and four additional burial troughs banked around with earth.

Under the sponsorship of Osaka city and Takaishi-machi in Osaka, a tomb known as Kurumazuka at Takaishi-machi was excavated in August and September.

This tomb had been looted long ago, but five earth-banked burial troughs were found in both the round and square parts of the tomb, with beads and straight swords in each. Further discoveries include a stove, gold trinkets, parts of body armour, and these are being exhibited in the Osaka Municipal Museum.

Keiō University's Department of Archæology, under the auspices of the Ōmiya City Education Board, excavated a place near Horinouchi, Ōmiya city, Saitama prefecture. Pit-houses and fire-pits were uncovered, the latter at least of the Earliest Jōmon period. In this area are sites that yield Earliest Jōmon pottery of the Daimaru and Kayama types, and a site that contained Haji pottery of the Tomb period.

Members of the Prehistoric Research Seminar, Messrs Ishibe, Okada and Shiraishi of Doshisha University and Mr Hotta from Shitennōji Gakuen, surveyed ancient sites in Hongo-chō, Ōi county, Fukui prefecture, during the month of August. One site, Ōshimahamako, contained seven strata ranging in time from the middle of the Tomb period to the Heian period. These included typical Haji, Sue and glazed pottery, and throughout was Shiraku pottery. At another site in the same area, Takimi, three passageway-style stone chambers were entered and a number of varieties of Sue pottery, beads and swords were found. At another place, in the valley of the Saburi River, were paddy field remains of the Tomb period. The extent of the wooden battens was measured.

Excavations have been carried out at Shimoyumida, Kushima city, Miyazaki prefecture, under the auspices of the Miyazaki Prefectural Education Board by Professors Kagamiyama and Sakazume from Doshisha University, Asst. Professor Kagawa of Beppu University and Messrs Ishikawa and Hidaka of the Education Board. Remains of three houses were located, along with Ichiki type pottery, stone weights and axes.

In August the Okinohara shell-mound, Futae, Itsuwa-machi, Amakusa county, Kumamoto prefecture, was dug by T. Sakamoto and T. Tanabe. Stratigraphic relationships showed Sue and Haji pottery in the uppermost layer of earth, Kene-gasaki and Izumi pottery types and bone implements in the shell layer immediately below, earlier Izumi pottery in the next layer of shells, and below the shell bed Sobata and Todoroki pottery types, with polished stone axes and a stone saw. Immediately under this stratum was uncovered the skeleton of an adult male, a flat stone resting on its chest, and the skull missing certain teeth.

PROFESSIONAL ASSOCIATIONS

THE JAPAN ARCHÆOLOGICAL ASSOCIATION held its general meeting at the National Museum, Tokyo, on April 28, and special memorial lectures were given; its 25th assembly at Waseda University was from April 29 to May 1, 1960. Outlining the programme, welcoming speeches and tea occupied the first day. Papers were delivered on the two succeeding days; as they represent the most recent research, it is worth while to list them here.

Special lectures were delivered by M. KAGAWA, M. WATANABE, and K. TSUBOI on the following subjects respectively: A few problems of the Latest Jōmon period in Kyūshū; Some remarks on bronze bells excavated from Yayoi remains at

Kasuga-machi, Chikushi county, Fukuoka; and Excavation report on the remains of the Heijo Palace (field work of 1959).

- T. ESAKA, On the so-called Akagodō type of pottery.
- H. ICHIHARA, Research on Late Jōmon shell-mounds in Tōtōmi.
- T. WATANABE, The Kaminagai site, Yasaka city, Tochigi prefecture.
- K. MURAKOSHI, The large pit-dwelling site of Ōmori Katsuyama, Hirosaki city, Aomori prefecture.
- H. FUJITA, Pottery from the Kamino site of Seihaku county, Tottori prefecture.
- S. OTOMASU, S. WATANABE, and S. MORI, A summary of the investigation of the Yayoi site on the island of Shigajima, Fukuoka prefecture.
- R. YASUI, A résumé of the excavation at the Kasajima site, Kushimoto-machi, Wakayama prefecture.
- N. ITŌ, Excavations conducted at the Tareyanagi remains, Inakadate village, Aomori prefecture.
- S. YOSHIDA and K. TAMURA, Groups of pit-dwellings that yielded early Haji pottery at the village of Abiko, Chiba prefecture.
- M. DATE and S. KOJIMA, The first investigation of the Hachiyama ancient tomb, Sakurai city, Nara prefecture.
- K. MORI and H. TANAKA, Research reports on the Tōzuka mound: The relationship with the early style of corridor stone chambers in the Kinai region.
- Y. AMIBOSHI, The investigation of the Nekozuka mound, Gojō city, Nara prefecture.
- R. YASUI and S. UTAGAWA, A résumé of the excavation of the Kensaizuka ancient tomb.
- N. SAKAZUME, H. CHISHINO and T. HATANA, A brief summary of the report of the excavation of the north side of the Nimmyō mausoleum, Fushimi, Kyoto.
- S. YOSHIDA and T. AMAKASU, The Takanozan ancient tomb groups, Abiko-machi, Chiba prefecture.
- S. MURAKAMI, On the old roof tiles excavated from the remains of an ancient, Buddhist temple in the county of Kibi.
- S. KOJIMA, The ancient tomb of Iwayomachi, Tenri city, Nara prefecture.
- Y. SHIBARA, S. Watanabe, and F. Oda, Inokami, a deserted Buddhist temple and roof tile yielding area in Mii county, Fukuoka prefecture.
- K. KANETANI, Report on the Kamenohara kiln site, Hiki county, Saitama prefecture.
- S. UMEMIYA, Report on the Rokuyama kiln site, Kōriyama city.
- H. CHISHIRO and T. ISHIBE, Remains in the cave of Kamuenai, Hokkaido.
- K. KANETANI, *Kishinomiya*, ceremonial remains of Kii.
- S. OTOMASU, Roof tiles.
- K. YAJIMA, Some of the relics deposited in the statue at Hōraizan, Kumano.

T. OKUDA, The first and second stages of the investigation of the Egasaki fortification remains, Musashi province.

TSUNODA, B., The traditions of Japanese archæology.

Special lectures were delivered by:

M. HAYASHI, Archæological research in Iran, Afghanistan and Pakistan.

H. TAKIGUCHI, Archæological research at Yaeyama, Okinawa.

I. YAWATA, Miscellaneous impressions of Hawaii.

NINE JOINT SCHOLARLY SOCIETIES has their 14th general meeting at the National Museum, Tokyo, on May 21 and 22. Many facets of island life, ancient and modern, were reported on, a number of the papers having to do directly or indirectly with prehistory and archæology were read. These included the following:

H. OTSUKA, Archæological investigations in the Izu Island group.

S. YAMANOUCHI, Jōmon civilization and islands.

S. SHIINA and W. NAKAGAWA, Archæological problems on the island of Sado.

T. ŌSHIMA, The ethnography of Sado Island.

J. IKEDA, Anthropological studies on Sado islanders.

THE ANTHROPOLOGICAL AND ETHNOLOGICAL SOCIETIES met jointly for the 14th time from October 9, 1959, for about five days at the School of Medicine, Osaka University. Some of the papers read, pertinent to Japanese prehistoric archæology, are:

H. WATANABE, Large obsidian stone implements from Hokkaido and North American ceremonial blades.

K. ICHIKAWA, Spiral patterns as seen on the surface of prehistoric pottery.

H. KAJI, Various kinds of uses of stone fishing weights.

K. ENOMOTO, The Shiroyama non-pottery cultural remains, Nerima-ku, Tokyo.

T. ESAKA, Masks of the Jōmon period.

Y. ŌE, Sites at the bottom of Lake Biwa.

Y. TANABE, Research on ancient Japanese bronzes from the view-point of technology

N. KUNIWAKI, On the cultivation of ancient Japanese potatoes.

T. OGATA, On the removal of teeth in ancient human skulls excavated in the Sanin region.

BIBLIOGRAPHY

Books and Articles

This selection is from the numerous books and articles of the past two years. Publications of prefectural archæological societies, privately printed, and site reports, not on sale, do not always reach the attention of this contributor. However the

present bibliography represents a cross-section of publication activity during the two years and their geographic distribution.

ESAKA, T.

1960 *Dogū* (Clay figurines). Tokyo. 352 pp., 229 pls., 7 figs.

A valuable compilation of almost all known figurines, plaques and related objects. The descriptive text deals chiefly with typology and style without much attempt at being theoretical or analytical. The author claims that all the figurines are female, a stand far too positive for this contributor.

GOTŌ, S.

1958 *Nihon no bi: haniwa ten* (The beauties of Japan: haniwa exhibition). Bridgestone Museum, Tokyo, June 10–July 12, 1958. 23 pp., 31 pls.

Catalogue of the finest exhibition to date of the clay tomb sculptures of protohistoric Japan.

HIGUCHI, T., S. NISHITANI and S. ONOYAMA

1959 *Ōtani kofun* (The ancient tomb of Ōtani). Kyoto University and Wakayama City. 150 pp., 55 pls., 60 figs., diagrams, English résumé (7 pp.).

A superb publication of a very significant 5th century A.D. tomb which yielded unusually fine grave goods, including the first discovery of iron horse armour and a horse helmet in Japan.

ITŌ, K. and Z. KANEKO

1957 *Chiba-ken sekkijidai iseki chimeihyō* (Lists of names of Stone Age sites in Chiba prefecture). Bōsō Archæological Association, Chiba. 144 pp., 5 pls., 19 figs.

Résumé of history of research in this prefecture, along with maps, lists, summaries of excavations of sites, and numerous illustrations on 5 plates. A valuable compilation.

KAWAZOE, N.

1960 *Tami to kami no sumai* (The dwellings of people and gods). Tokyo. 268 pp., 5 pls., 63 figs.

Small format, fascinating book that attempts, amongst other things, to distinguish between the hero cult of Izumo and shamanistic practices at Ise. Interesting theories are mostly soundly worked out.

KOBAYASHI, Y.

1959 *Kofun no hanashi* (A discussion of ancient tombs). Tokyo. 211 pp., 1 fig., 7 maps and diagrams.

Small, paperback book, packed with information written in an interesting style. A handy survey of the protohistoric period.

1960 *Haniwa* (Ceramics Series, vol. 1). Tokyo. 16 pp., 64 pls., 8 colour pls., 23 figs.

Very brief text; excellent photographs including a scattered few recent discoveries. Kobayashi is one of the few who date everything precisely to the century.

KOMAI, K.

1959 *Otoe*. Tokyo. 135 pp., 32 pls., 70 figs., English list of plates and résumé (4 pp.).

Systematic report on stone circles in Hokkaido, centering on those at the site of Otoe. Graves that yielded arrowheads, beads, pottery and other remains of the Jōmon period are attributed by the excavator to the Ainu.

KONDŌ, Y.

1958 *Kōkōgaku no kihon gijutsu* (The techniques of archæology). Kyoto. 276 pp., 14 pls., 116 figs.

Methods in field work, preservation and presentation, etc., applicable to Japan.

KONDŌ, Y. and SHIBUYA, Y.

1957 *Tsuyama Yayoi jūkyōshigun no kenkyū* (Research on the remains of the Yayoi period at Tsuyama). Tsuyama city. 109 pp., 20 pls., 26 figs., English table of contents, lists of figs. and pls.

A site in Okayama prefecture. The report demonstrates mostly energy, but has an interesting section on the reconstruction of Yayoi period houses and primitive contemporary houses in the Chūgoku region.

MATSUBARA, N.

1960 *Haniwa*. Tokyo. 96 pp., 109 pls., 30 figs.

A standard and comprehensive text on a subject that is wearing thin. Many new objects in the illustrations.

MIKI, F.

- 1959 *Haniwa*. Tokyo. 180 pp., 80 pls., 12 colour pls., 26 figs., 1 map, English résumé and list of plates.

A handsome volume of excellent photographs. Brief text. The notes on the plates are most useful. (See review of its English adaptation by R. A. Miller, page 32).

MIYASAKA, H.

- 1957 *Togariishi*. Kayanomachi Educational Board, Nagano. 269 pp., 48 pls., 100 figs.

Solid volume dealing with years of excavations at the large Middle Jōmon period site in Nagano prefecture. The convenient arrangement of subjects on the plates shows all objects found together in a given pit.

MORI, Y. and S. GORŌ

- 1960 *Shashin Toroiseki* (Photographs of the remains of Toro). Tokyo. 139 pp., 113 pls. and figs.

A photographic record with accompanying text of the most famous of all Yayoi sites. This is one more of the numerous books on the Shizuoka community site, and one gets the impression that little more can be said about it.

MURAI, I.

- 1960 *Doki to haniwa* (Pottery and haniwa). Tokyo. 142 pp., 69 pls.

A small book, but much broader than the title would suggest. The pottery of the Jōmon period is fairly well covered; much briefer are general coverages of the Yayoi and Tomb periods.

NAORA, N.

- 1960 *Nihon no tanjō* (The birth of Japan). Tokyo. 248 pp., 47 figs.

Written by the earliest and most ardent exponent of the Japanese Palaeolithic, the emphasis is on the prehistoric flora and fauna with only brief references to the typology of artifacts. More of this kind of thing is actually needed.

NISHITANI, S. and Y. KAMAKI

- 1959 *Kanakurayama kofun* (The ancient tomb of Kanakurayama). Kurashiki Museum of Archaeology. 112 pp., 51 pls., 51 figs., English résumé (8 pp.).

Characteristically beautiful publication of an early 5th century A.D. tomb in Okayama prefecture noted for its Haji ware, iron tools, haniwa shield and other objects.

Sekai Kōkōgaku Taikei (Series on World Archaeology). Editorial board of sixteen archæologists, vols. I-III, Tokyo.

- 1959 Vol. 1—Japan I. Editor I. Yawata, contributions by nine authors. 149 pp., 224 pls., 5 colour pls., 302 figs., charts, maps, bibliography.

A splendid series, superbly illustrated, by most competent authorities. The illustrations include much recent material. Many volumes on Western countries have already appeared. For Japanese archæology these are undoubtedly the best coverage to date and perhaps may stand as such for a while to come.

- 1960 Vol. 2—Japan II. Editor S. Sugihara, contributions by thirteen authors. 120 pp., 192 pls., 6 colour pls., 287 figs., charts, maps, bibliography.

- 1959 Vol. 3—Japan III. Editor Y. Kobayashi, contributions by ten authors. 172 pp., 222 pls., 6 colour pls., 343 figs., charts, maps, bibliography.

SUZUKI, H.

- 1960 *Hone* (Bones). Tokyo. 226 pp., 1 pl., 100 figs.

A popular seller of morbid interest on a subject of very limited research material. Includes prehistoric physical remains, a history of the development of the Japanese racial types, the mummies of the Chūsonji, the mass graves of soldiers of the Kamakura period, and later remains.

TAKIGUCHI, S. and Y. NOGUCHI

- 1959 *Nihon no dogū* (Clay figurines of Japan). Life and form of Japan, vol. I, Tokyo. 153 pp., includes 122 pls., 11 figs.

Marvelous detailed photographs of many newly discovered figurines. The text is too brief, but this is intended as an art book. Lush format. (The dust jacket has on its back in English *Jōmon Clay Figurines*)

TANAKA, S.

- 1959 *Jodai no tsubo* (Pots of ancient times). Ceramics Series, vol. II, Tokyo. 16 pp., 64 pls.

Particular emphasis on glazed pottery of the late protohistoric period. Many lesser known pieces shown in good plates.

YAWATA, I.

- 1960 *Kodai no kurafuto: Jōmon bijutsu ten* (Crafts of ancient times: exhibition of Jōmon arts). Sponsored by Mainichi Newspapers, held at Shirokiya Department Store, Tokyo, May 10-15. Brief Japanese and English text, 46 pls.

Catalogue of an excellent exhibit intended to publicize many recent discoveries of vessels and figurines of the Neolithic period. Magnificently arranged and displayed.

Kodaigaku Kenkyū, 20, April 1959

- USA, S. and NISHITANI, T. On the origin of the whirl-shaped bronze objects and circular objects with two projections in the painted tombs, pp. 1-9.
- YAMADA, R., and ISHIBE, T., The Tomb period culture in the Hitoyoshi Basin area. Reports on the Yoshino ancient tomb group, Kumamoto prefecture, pp. 10-24.
- ODA, F., The triple tomb discovered in Miyako county, Buzen. A special earth-banked tomb and stone sarcophagus that contained important mirror fragments, pp. 25-30.
- NISHIKAWA, S., Bird-shaped haniwa excavated from Kyōdozuka no 2, Tabemachi, Kyōto, p. 30.
- TSUNAHOSHI, Y., On the bird-shaped containers excavated from Yamato, pp. 31-32.
- KANETANI, K., The Sanda tomb in the Kii region, pp. 33-37.
- KOSAKA, K. On the Sue and Haji pottery excavated from the Miyanokoshi site, Yaizu, Yaizu city, pp. 38-43.
- HAGA, Y., The Aoyama shell-mound. Pottery of the ancient fishing village on the Akumi peninsula, pp. 44-52.
- Annual index, pp. 53-58.

21, 22, November 1959

- MORI, K., On the iron hammers excavated from ancient tombs, pp. 1-20.
- SUZUKI, J., The stone objects that are mostly pointed in the museum of Miyazaki prefecture, pp. 21-24.
- MIFUNE, K., The Yayoi period graves at Mimasaka, pp. 25-29.
- TASHIRO, K., The Yayoi period burial jar excavated at Kaminozumi, Ibaragi city, pp. 30-31.
- HORITA, K., The stone objects excavated at Okayama, Shijōnawate-machi, Osaka prefecture, p. 32.
- IMAZATO, I., Weight-shaped clay objects found in Harima, pp. 33-37.
- OKUBO, M., Measuring three ancient tombs in Kawabe county, Settsu province, pp. 37-40.
- ISHIBE, T., and SHIRAIISHI, T., The Sonobe ancient tomb of Takahama Wakasa and sites in its vicinity, pp. 41-45.
- SUENAGA, M., Green bands (of landscaping) around ancient tombs, pp. 46-47.
- KAMITA, H., Some problematical questions in connection with the proportions of keyhole-shaped tombs, pp. 47-48.
- TSUNAHOSHI, Y. The archæological material of Nara prefecture—Post-war, pp. 51-55.

23, April 1960

- ICHIMŌ, I., Ancient clay and sand, pp. 1-7.
- MASUDA, S., A container for boiling rice found at Miyayama, Harima, p. 7.
- KAMITA, H., and MORI, K., Investigation reports on the Hakanoo ancient tomb group of Ishikiri-machi, Maioka city, Osaka, pp. 8-13.
- OGAWA, T., The disappearance of art objects from the ancient tombs, p. 13.
- TANAKA, H., Excavated objects from Iizukayama, Takada-machi, Mozu, Sakai city, pp. 14-16.
- NAKAGUCHI, Y. and KAMINO, Y., On the clay weights found in the vicinity of Shibayama lagoon, Kaga province, pp. 17-21.
- SAKAZUME, S., Notes on a Horinouchi type burial jar of the Jōmon period, pp. 25-26.
- KITANO, K., The chronology of the 'fern-frond' handled sword, pp. 27-30.
- SHIINA, S., The Sado Museum, pp. 31-33.
- ISHIBE, T., Impressions on the excavation of the Kensaizuka at Gamō-machi, Gamo county, Shiga prefecture, p. 38.

24, June 1960

- TAKENAKA, I., On the typological changes of the earliest period Yayoi pottery excavated at Okioi, Fukuoka prefecture, pp. 1-7.
- MORI, K. and TANAKA, H., General remarks on the investigation of the Yuriyama ancient tomb group in Wakayama prefecture, pp. 8-15.

GEOLOGY CLUB OF OTSU SENIOR HIGH SCHOOL, The measurements and survey of the Kitsuneyama ancient tomb of the Shidayama ancient tomb group, Osaka, p. 15.

KOJIMA, S., Objects of material culture produced from stones of volcanic mountain sources, pp. 22-26.

25, August 1960

UMEHARA, S., Newly excavated moulded bronze fragments of a bronze bell, pp. 1-7.

KAGAWA, M., The influence of prehistoric Chinese pottery: one problem of the Late and Latest Period of Jōmon culture in Kyūshū, pp. 8-16.

NISHITANI, T., The drawing of a boat that appears on the surface of a cylindrical haniwa, pp. 17-18.

ANAZAWA, W., An ancient tomb that yielded a mirror with floral pattern in the Aizu region, pp. 19-22.

SUZUKI, S., Iron implements of the Hyūga region, pp. 23-25.

HAMAOKA, K., Haji pottery in the prefecture of Ishikawa, pp. 26-29.

KOJIMA, S., Objects of material culture produced from stone of the Futakami volcanic mountain range: production in a local cultural zone, pp. 30-32.

Kōkogaku Zasshi, 44(3) February 1959

ESAKA, T., On the possibility that vegetable cultivation originated in the Middle Jōmon period culture, pp. 138-144. (English résumé)

YAMAZAKI, Y., On the Yayoi period site at Kamikudo, Gumma prefecture, pp. 145-149.

KINOSHITA, Y., A report on the tumulus at Kokuma, Yamato village, Saga prefecture, pp. 150-157.

KOMAI, K., On ancient Ainu pit-dwellings, pp. 167-178.

SATO, T., Stone implements from Nobeyama, Nagano prefecture, pp. 182-185.

KUSUMOTO, N., Horn articles in the shape of human figures from the shell-mound of Numazu, Miyagi prefecture, p. 186.

44(4), March 1959

KAWAI, K., YOSHIDA H. and KŌMURA, H., On the stone implements of the non-ceramic culture at the Ebiyama site, Gifu prefecture, pp. 203-208.

HASHIMOTO, S., A preliminary report of the excavation of the Sanami site, Notojima-machi, Kashima county, Ishikawa prefecture, pp. 209-216.

MATSUZAKI, I. and WATANABE, K., The Todogawa, Jubeizawa and Katsuyamadate sites in Hokkaido, pp. 217-232.

YOSHIDA, S. and AMAKASU, K., The excavation of the Hakusan ancient mound at Abiko, Higashi-Katsushika county, Chiba prefecture, pp. 233-259.

OWAKU, S., Implements of bone, antler and tusk from the Kashikodoro shell-mound, Noshiro city, Akita prefecture, pp. 274-275.

45(2), September 1959

ŌTA, H., The restoration of primitive dwelling houses, pp. 79-95. (English résumé)

ISHINO, H., *Hoshi-goya* in the area east of Lake Biwa: a type of primitive architecture, pp. 96-114. (English résumé)

NAKAMURA, G., The pottery from the Futatsukama site, pp. 139-141.

OTOMASU, S., and SAKATA, Y., A jar of Jōmon type pottery for a child excavated at Nunoda, Yamanishi village, Aso county, Kumamoto prefecture, pp. 142-144.

KATADA, C., A new example of a drawing of a boat on a haniwa cylinder, pp. 144-145.

ANAZAWA, W., A new example of a sword with 'fern-frond'-shaped pommel, pp. 146-147.

45(3), December 1959

KAYAMOTO, T., The *Wa no Nano Kuni* (signet found at Shigashima), pp. 161-170.

UMESAWA, S., On the moats around keyhole-shaped tumuli, pp. 171-186.

SHIMA, T., The ancient mound at Suzukinuma, Tsunoda city, pp. 187-202.

ODA, F., Relics from Keika-en, Shimabara peninsula, pp. 225-229.

HIRANO, K., Stone bracelets from the ancient mound at Fujikamibara, Iwata city, Shizuoka prefecture, pp. 229-231.

45(4), March 1960

KAYAMOTO, T., The *Wa no Nano Kuni*, pp. 244-257. (English résumé)

ITŌ, G., The cremation tomb at Oyamada, Miyagi prefecture, pp. 282-289.

MASUDA, S., On types of the head harness of horses as seen on haniwa, pp. 290-305.

TANAKA, I., A preliminary report on the investigation of the tomb at Shinmachi, Sakado-machi, Iruma county, Saitama prefecture, pp. 306-308.

AKITA, K., The curved beads found at Tsuboyama, Oshimizu-chō, Hagui county, Toyama prefecture, pp. 309-310.

SAITŌ, H., A pottery fragment from Hinatagaoka, Kanagawa prefecture, pp. 310-311.

46(1), June 1960

ONO, S., A study of cist graves with special reference to those in the area along the Bay of Suruga, pp. 25-62.

TANAKA, I., A preliminary report on the ancient mound No. 78 at Moroyama-machi, Saitama, pp. 66-69.

Books and Articles in Western Languages

BEFU, HARUMI and CHESTER S. CHARD

1960 *Preceramic Cultures in Japan*, AA, 62, 815-849.

An illustrated summary of the preceramic cultures of Japan. After the introduction and brief résumé of the historical background follow sections on the typology of the more important stone artifacts, definition of the various industries, chronology, the relations with neighbouring areas, and the transition from the preceramic to the Jōmon cultures. For a differently organized summary see below SERIZAWA and IKAWA. Chard has the following note concerning a slight problem of co-ordination of the two summaries:

Romanization of Japanese place-names presents a perennial problem, since alternative readings of the characters are often possible and there is no way of determining actual local usage. Inevitably, a few discrepancies have appeared in the rendition of the same site by Serizawa and Ikawa and Befu and Chard in their discussions of the preceramic period in Japan. To avoid any confusion, these sites are here listed as rendered by Serizawa and Ikawa, followed by the form used by Befu and Chard: Kiyama—Shiroyama, Ishima—Ijija, Okedo—Oketo, Tachikarushunai—Tachikarushinai, and Washuzan—Washiuzan.

KIDDER, J. E. JR.

1959 *Japan before Buddhism*. Ancient Peoples and Places, vol. X. London and New York. 282 pp., 108 pls., 65 figs., 7 maps, bibliography.

A comprehensive survey of the prehistory of Japan. An Italian translation is available; French, German and Swedish translations to follow. (Reviewed below on page 32)

1959 Pre-pottery and Jōmon pottery relationships on the I.C.U. campus, Tokyo. *Artibus Asiae*, 22(1/2), pp. 79-94.

MARINGER, J.

n.d. Vorgeschichtliche Fischgravierungen in Japan und Localtraditionem, *Antaios*, 1(5), pp. 431-436.

MILLER, R. A. (English adaptation)

1960 *Haniwa: The Clay Sculpture of Protohistoric Japan* by F. Miki, Tokyo. 161 pp., 80 pls., 12 colour pls., 26 figs., 1 map.

Timely publication based on the text by Japan's leading authority on haniwa and adapted to Western attitudes of appreciation. This is the most complete and useful study in a Western language on the haniwa. (Reviewed on next page)

NOMA, S. (translated by C. TERRY)

Haniwa. Catalogue of Exhibition of Haniwa from the National Museum, Tokyo, being shown in American museums in 1960. Printed in Tokyo. 9 pp., 55 pls., end map.

Well illustrated catalogue of good but unrepresentative collection touring the U.S., with brief text in places inaccurate, through no fault of the translator.

SERIZAWA, CHŌSUKE and FUMIKO IKAWA

1960 The oldest Archæological Materials from Japan, *AP*, 2(2), Winter, 1958, 1-40.

An illustrated summary of the preceramic cultures of Japan. Presentation of the history of the study of the preceramic cultures is followed by a description of the cultural sequences for Northern Hokkaidō, Southern Hokkaidō, Northern Honshū, Central Honshū, Northern Kantō Plain, Southern Kantō Plain, and South-western Japan. This is followed by a summary and discussion and an extensive bibliography through 1958. See above BEFU and CHARD for a differently organized summary, with a note by Chard on place names differently spelled.

BOOK REVIEWS

MIKI FUMIO: *Haniwa: Haniwa, The Clay Sculpture of Protohistoric Japan*. English adaptation by R. A. MILLER. Rutland (Vermont) and Tokyo, Tuttle. 1960. 106 pp., 92 pls., (12 in colour), 25 figs., map. US\$8.75

Since 1958 books in Japanese on the protohistoric tomb sculptures have been appearing with greater frequency, partly stimulated by the Exhibition held in June-July 1958, organized by the National Museum of Modern Arts. This increasing interest among the public reached its climax in that display and the momentum has now spread to the United States. With a ready-made, authoritative text and American interest awakened with the *Haniwa* Collection of the National Museum on a travelling tour in the major museums of the United States, it was opportune for Tuttle to bring out this book.

Miki's text is the backbone of Miller's book, but it has been supplemented and oriented to make good reading for all but those who are looking for the finer shades of argumentation. It seems to this reviewer that the specialist could also have been offered a little more with no loss of sales to the publisher who however chose this short cut to the American market.

The text adheres closely to all the fundamental facts known about the *haniwa*: it describes the cylinders, the inanimate objects, virtually every aspect of the human figures and animals, and discusses the problems of the origins, the developments and some of the regional peculiarities. Miller then sets out to elaborate on the artistic nature of these sculptures, doing this in both superlative and superior terms. Style analysis and philosophy are interwoven, reflecting in a modified way the Japanese version. Occasionally one has the feeling that this contemporary practice of glorifying the *haniwa* in luxuriant verbal passages is a feebly camouflaged dodge for not coming to grips with their true symbolic significance. Symbolism is given only incidental consideration, and while the detailed descriptions in the Notes on the Plates add greatly to one's knowledge, here they lead only to the threshold of understanding and go no farther. Precise symbolic determination cannot be asked for in all instances by any means, but the book would have seemed more conclusive if there had been further exposition of this aspect of the *haniwa*. I assume that the reason the original text is brief in this regard is due to the writer's primary purpose of stressing the artistic character and quality of the sculptures.

Miller points out the circumscribed development in the Yamato Plain where the *haniwa* first appeared. It is only a token start, and full fruition comes about in outlying areas—a rather unexpected phenomenon in a sense, since the largest tombs are concentrated in the Kansai and one would have expected the *haniwa* to have been made chiefly for them. The reason for this, however, is a time difference, as the major florescence in the use of *haniwa* occurs in the sixth century, a hundred years or so after the mammoth tombs had begun to go out of style, and not until figure sculpture had become so important. This development in figured *haniwa* may have been spurred on partly by the introduction to and the local production of Buddhist statues in the Yamato area. The time element corresponds favourably, but there are no features that might suggest any connection other than an increasingly literal handling of costume details. The evolution to the finely articulated and realistic particularities of dress and costume takes place chiefly in the north. Yet throughout, the treatment of body details changes little. The punched holes for eyes and mouth and angular nose give the impression of following a fixed and time-tested formula which the guild could and would not break, but in the external details of dress, which undoubtedly fluctuated with time, much freer expression and a greater degree of detailing was permitted if not encouraged.

The book is attractively made up, especially when stripped of the dust jacket, and the photographs are of unsurpassed quality. The inclusion of many lesser known *haniwa* adds much to its value. Perhaps the little text figures could not have been salvaged from the Japanese version in any better form, and I would rather have them hazy than not at all, but something might have been done to improve their quality. These comments on minor flaws are not to be taken as detracting from the over-all merit of the book. It takes its place as a most useful volume at a singularly appropriate time.

J. EDWARD KIDDER, JR.

KIDDER, J. EDWARD, JR.: *Japan before Buddhism* (in the series *Ancient Peoples and Places*, GLYN DANIEL, General editor). London, Thames and Hudson. 1959. 22 pp., 108 pls. (1 in colour), 65 figs., 7 maps. 25 shillings net.

Not only is this an excellent survey of the pre-and protohistory of Japan, but the only work so far in a Western language which really covers the entire field of Japanese archaeology from the Palæolithic to the late sixth century A.D. Books, monographs and journals on Japanese archaeology are available in lavish quantity in the Japanese language, and are of course indispensable for any serious study of Japan before history; some contain summaries in English or other Western languages. But Kidder's book will serve for some time to come as the starting point for Western scholars, with or without a reading knowledge of Japanese, interested in the relations of the ancient peoples of Japan to the peoples and cultures of the Asian mainland. G. J. Groot's *The prehistory of Japan* (New York 1951), despite its title, concerns only the Neolithic or Jōmon phases, especially of the Kantō region; it remains a valuable reference because of its detailed treatment of Jōmon ceramics, despite the truly

staggering amount of new information published by Japan's numerous and very active 'Jōmon-ologists'.

Kidder divides his book into four chapters which cover, in order, the Palaeolithic and Mesolithic, the Neolithic or Jōmon, the Bronze-Iron or Yayoi, and the Protohistoric or Tomb-Mound periods. The plates, which form an important part of the book, are up to the high standards set for the whole series *Ancient Peoples and Places*, though, as in the other volumes, they are identified only by numbers, forcing the reader into awkward shifting back and forth from the plate section to the numbered descriptive notes. In every case there seems to be sufficient space on the plates for at least a brief descriptive label. The bibliography, in two sections, gives a longer basic list of the principal Japanese publications of recent years (many of them noted as having English or German summaries), and a shorter list of works in Western languages—nearly all outmoded by the appearance of Kidder's book.

The treatment of the palaeolithic and mesolithic is so brief as to make detailed comment unnecessary. In any event, the reader could now be referred to the detailed and well illustrated article in this journal [*AP*, 2(2), 1-39, 1960], 'The oldest archaeological materials from Japan' by C. Serizawa and F. Ikawa. Kidder errs (p. 30) in placing the important Hokkaidō blade site of Tarukishi in the 'neighborhood' of Hakodate: it is actually about 54 miles (87 km.) NNW of that city.

The fact that Kidder devotes only 55 pages to the long and complex Neolithic or Jōmon cultures, and 117 pages to the Bronze-Iron Age and Protohistoric or Tomb-Mound eras (which together covered only a few centuries, and were considerably less heterogeneous) is open to criticism from the view-point of an archaeologist looking at Japanese prehistory from some other part of Asia, or from the Americas. It is true that the last two periods are the more spectacular from the art-historical and architectural standpoint and provide numerous and unambiguous examples of cultural borrowings from the continent, but the pre-metal period cultures of the Japanese Islands appear to be of greater significance for Northeastern Asia and for the problems of ancient Asian-American connections.

The various local Jōmon manifestations are handled in the more or less standardized sequence based on development in the Kantō region, with datings partly speculative and partly from three Carbon 14 dates available when the book was written. Since then, Japan has installed her own C14 laboratory facilities, and, what is more important, will benefit extraordinarily from one of the newer absolute dating methods—hydration of obsidian (Cf. I. Friedman and Robert L. Smith, 'A new dating method using obsidian', and 'Table of obsidian dates', *American Antiquity*, 25: 476-522, 1960; the first announced Japanese obsidian dates are listed on pp. 509-510). Fortunately for students of the Jōmon phases, obsidian artifacts are abundant in almost all horizons, and in almost all parts of Japan. With this new method, which requires much less costly investment in equipment than the C14 method, the chronology of the intricate local Jōmon cultures should be resolved within a few years.

Kidder's discussion of the much argued relation of the Ainu to the Neolithic population of Japan seemed confusing to this reviewer, perhaps because the issue itself is still very much confused, and debated hotly by physical anthropologists, archaeologists, ethnologists, and linguists. Many physical anthropologists, I am sure, would be perplexed by Kidder's statement (p. 87) that 'The white-skinned Ainu have more pure racial characteristics than do the Japanese, but they also have some mixed features. . . .' Nor does the notion (also p. 87) of a heterogeneous group of Jōmon period migrants to Japan being later 'sharpened into the Ainu' seem to be genetically plausible. The Ainu constitute a problem which no synthesis of Japanese prehistory can dodge, and which no historian of mankind in Eastern Asia during the post-Pleistocene can evade either.

The discussion of the Bronze-Iron Age or Yayoi Period is well done, and easy to follow if the reader brings to the book a sufficient background in Far Eastern prehistory. However, the reviewer doubts that a general reader, unfamiliar with what was happening in China and Korea during the centuries in question would find it particularly clear. It is doubtless too much to ask of the editor of this series to insist that the author of each volume provide a complete set of background data from the larger realm of which the topic of the book is only a part. We are promised however a volume on China in this series, but it seems unlikely, however, that it can deal in much detail with either the overseas influences of the Han Dynasty, or the following three centuries of Chinese dynastic struggle, despite the importance of those centuries for the development of states in both Korea and Japan. Yet Professor Kidder might have guided his readers, in a few paragraphs at least, to the sources on the march of events on the mainland to which he does refer, however tangentially or obliquely—even tantalizingly. Lo-lang is mentioned briefly twice, for instance. Wang Mang (9-23 A.D.) is noted, but the reader must find out for himself that he was a usurper coming between the Former and Later Han, or that he was even a Chinese. It would have been easy to provide the reader with a chronological chart showing the major periods in Chinese and Korean archaeology and history during the period covering the Yayoi and Tomb-Mound eras in Japan. Several of the other volumes in this series have just such charts.

A paragraph or two about the Japanese language might also have been appropriate. Glottochronology now offers some prospect of time perspective on this much disputed problem. Linguistic speculation has not been an unmixed blessing for European protohistoric research, but archaeology has unavoidable obligations to contribute what it can to the solution of problems of historical linguistics. A general archaeological work on India without consideration of the problem of the introduction and spread of Indo-European would be equally incomplete. Finally, a résumé of the various ethnological hypotheses which attempt to account for aspects of Japanese culture lacking

obvious Chinese or Korean antecedents might have been in order. Even a negative statement that archaeology in Japan fails to show any significant South Asian or Southeast Asian influences (of the type frequently cited to account for the seeming climatic inappropriateness of Japanese domestic architecture) might have been valuable.

The index was frequently disappointing especially with respect to general cultural items, or continental elements. Effective diffusion of writing to Japan was linked to Buddhism, but inscribed objects from the mainland show up in Bronze-Iron Age times: the index has no entries for writing, script, or inscriptions. It omits Korea though Lo-lang, Silla, Paikche, and Mimana are included. The non-specialist reader interested in possible ancient Korean-Japanese relations might be misled if he were unfamiliar with Lo-lang *et al.*

These minor criticisms do not diminish the reviewer's real enthusiasm for Kidder's book. The author has produced one of the very best volumes in the whole *Ancient Peoples and Places* series, which, in view of its very high standard, is intended to be high praise. I am not envious of the task of the author of the promised volume on China, faced with this excellent work on a neighbouring area.

Finally, this volume will, I believe, serve to acquaint more of the world's prehistorians with the solid results of Japanese archaeological fieldwork, analysis, and synthesis—results which can be matched in very few other countries. The success of Japanese archaeologists working on their home soil, to which Kidder's able work attests, has also helped to create a group of Japanese archaeologists whose competence is already bearing fruit in other parts of the world—in Iraq and Peru, for example.

GORDON W. HEWES
Boulder, Colorado, USA
February 12, 1961

Book Notes

WATTS, ALLAN W., *The Way of Zen* (Mentor Book). New York, The New American Library of World Literature, Inc. 1959. 224 pp, 4 pls., index, Chinese Notes. US\$0.50.

It is of value for an archaeologist to know more of the area in which he is working than just the remains of the material culture which he unearths, works with, or reads about for his own comparative purposes. While philosophy may be rather 'far out' for an archaeologist it would still be to his advantage to have some knowledge of the philosophies of 'his area' and their background. Watts presents here clearly and simply (as far as this is possible) the backgrounds of Chinese Taoism and Indian Buddhism, their conjunction in Zen and the present meaning of Zen Buddhism. This will well serve for a general knowledge of Zen Buddhism or as an introduction to a more extensive study.

Ryūkyū Islands

ALLAN H. SMITH

Received 20 June 1960

FIELD WORK AND RESEARCH

Assistance in compiling these notes has been received from Douglas G. Haring, Shirō Hattori, Mitsuo Kagawa, Erika Kaneko, George H. Kerr, Naoichi Kokubu, Toichi Mabuchi, Clement W. Meighan, Hiroe Takamiya, and Maner L. Thorpe, whose help is gratefully acknowledged here.

General

i. With the aid of a Rockefeller Foundation grant and a number of specialist assistants, George H. Kerr (Honolulu Academy of Arts) is devoting five months this summer to a rapid island by island survey of the historical, linguistic, contemporary culture, and archæological research potential of the Ryūkyūs. The data will be not only of value in themselves but also of use to specialists planning research-in-depth in the area. Copies of the findings will be placed on file at the University of the Ryūkyūs, at the Bishop Museum in Honolulu, and in Japan.

ii. Employing data collected on Amami Ōshima in 1951-52, secured by recent correspondence with Amamians, and appearing in published form, Douglas G. Haring (Syracuse University) is undertaking a comparative study of kin terms and family usages and explores the possibility that much Ryūkyūan culture has been influenced directly from China rather than indirectly through Japan, specifically since Ming China exerted an important influence on the Ryūkyūs roughly comparable to the T'ang effect upon Japanese cultural development. The resultant paper will probably be published in a projected volume of Ryūkyūan studies by various ethnographers and archæologists, which Haring will edit.

iii. Under the sponsorship of the Archæological Society of Japan, Mitsuo Kagawa (Beppu University) will do field research this summer in southern Kyūshū and the Ryūkyūs. This may lead to the publication of two studies, one discussing the role of ancient Japanese culture on the formation of Ryūkyūan culture, and the second devoted to a survey of the agricultural methods of ancient Japan and the Ryūkyūs, especially those followed in rice cultivation.

iv. During May-June 1960, Erika Kaneko (Tokyo Metropolitan University) and Naoichi Kokubu (Shimonoseki College of Fisheries) surveyed the archæological resources of the islands of Ishigaki, Taketomi, Iriomote, Hateruma, and Yonaguni in the southern Ryūkyūs and of Yabuchi Jima off eastern Okinawa. The work was carried out with financial support from the Wenner-Gren Foundation for Anthropological Research. Drs Kaneko and Kokubu have kindly provided the following summary of their activities, preliminary findings, and tentative conclusions.

Since no previous archaeological work had been undertaken on Yonaguni, especial attention was devoted to that area. Following a complete survey of the island, the most promising sites—two traditional former village sites and one site within the main present village—were partially excavated. A great number of rock shelters, two cave burials, and evidence for a still partially functioning megalithic stratum were surveyed. Much human skeletal material and pottery, and many burial urns were collected. However, excavations on Yonaguni produced nothing suggestive of a greater time-depth than the remainder of the area: all finds, including the crude hanareyaki-type pottery, were associated with Ming Celadon and hence were dateable.

It would appear that the northern and southern parts of the Ryūkyū Islands belong to different archaeological culture areas.

a. The northern area includes the islands of the Amami Ōshima group and the main island of Okinawa with its surrounding small islands. As yet stone implements have not been found abundantly in this area. On the other hand, three pottery traditions are discernable, the earliest running parallel with the late Jōmon of southern Kyūshū. Influences both from Kyūshū and from the southern Ryūkyū area are apparent.

b. The southern area comprises Yaeyama Rettō, including Yonaguni. [The position of Miyako Rettō between Okinawa and Yaeyama is not stated.] Stone artifacts occur in relative abundance, except on Yonaguni where they may have been buried by the more general paddy cultivation of that island, and appear to have been in use until relatively recent times. The most frequently found types include quadrangular adzes, ridged adzes, and hammerstones.

v. Maner L. Thorpe (Harvard University) is engaged in the problem of reconstructing Proto-Japanese-Ryūkyūan, and in determining the relationship between this language family and the Altaic languages, in defining the subgroupings of this larger speech aggregate, and in measuring the time-depth values for the various reconstructed ancestral forms. Using published basic data in Japanese, Thorpe has tentatively arrived at a lexico-statistical cognate figure of slightly under 60% between Tokyo Japanese and Hatoma-Taketomi Southern Ryūkyūan. He also concludes that:

a. "The Japanese language of the Nara documents does not represent the ancestor of both the mainland and the Ryūkyū dialects, for the latter separated from the former some 20 minimum centuries ago: and

b. "The existence of a northeast to southwest gradient from Kyōto through Kagoshima and down through the Ryūkyūs is the natural result of contacts between the adjacent links in the chain."

Linguistic field work in Korea is planned for the near future to provide data needed to assess the genetic position of Korean in relation to the above-mentioned languages.

Central Ryūkyū Islands

Hiroe Takamiya (Okinawa Junior College) has prepared a preliminary report entitled 'The Akajanga Shell Midden of Gushikawa Village' which is scheduled for publication this year. The excavation was conducted on the island of Okinawa in December 1959.

An article jointly authored by Takamiya and C. W. Meighan (University of California, Los Angeles) and discussing the excavation of Kanegusuku Shell Midden is planned for publication in the autumn of 1960 or next year. It details the results of field work carried out on Okinawa in the winter of 1958 and the spring of 1959.

During the period July-September 1960, Takamiya participates as archaeologist in the Kerr project mentioned above. The archaeological survey will be conducted on the island groups of Ōshima, Okinawa, Miyako, and Yaeyama.

Southern Ryūkyū Islands

i. Conclusions of time-depth importance may well emerge from the intensive research in kinship and ritual organization currently being undertaken by Toichi Mabuchi (Tokyo Metropolitan University) in the southern Ryūkyūs.

ii. Erika Kaneko (Tokyo Metropolitan University) who is preparing a time-depth survey of Yaeyama burial customs, thinks that at least three basically different patterns have existed in the area through the known archaeological and historic period.

BIBLIOGRAPHY

ANONYMOUS

- 1959 *Bibliography on the Ryūkyūs, I* (Nantō Bunken Shiryō Mokuroku). Seijō University, Folklore Research Department (Seijō Daigaku Minzokugaku Kenkyūshitsu), pp. 1-41. (In Japanese)

This extensive but unannotated catalogue of publications, with two or three exceptions, only lists materials written in Japanese. It is divided into two main parts, one for books and the other of articles; the publications are catalogued by subject. Publications of importance to time-depth studies are included at least in the sections of the book part entitled General Accounts, History, Society, Language, Popular Literature, and Religion. The final Miscellaneous Section contains a single item, the volume by Ōyama, *Excavation of the Iha Shell Midden in the Ryūkyūs* (Ryūkyū Iha Kaizuka Hakkutsu), published in 1922.

In the much more lengthy second part, many articles of time-depth interest are listed. They appear on the whole under the headings General Accounts, History, Ancient Records, Burial Patterns, Ancient Tales, and Religion, though found elsewhere in lesser numbers as well. Of special interest, however, are the 15 titles which comprise the Archaeology section and the 25 citations which form the Physical Anthropology Section.

BULL, EARL RANKIN

- 1958 *Okinawa or Ryūkyū: The Floating Dragon*. Published by the author; pp. 1-243, 59 plates, index. (Mimeographed)

A frankly popular, secondary, and generally superficial account. Many aspects of the physical environment of the Ryūkyūs and of the physical characteristics, language, and earlier history and culture of its people are touched upon. The emphasis is on the recent history and contemporary life of Okinawa. Nevertheless, some scattered data useful in time-depth research are presented, including a list of the Ryūkyūan dynasties and an extensive source bibliography of English titles.

HATTORI, SHIRŌ

- 1959a *Nihongo no Keitō* (Affinities of the Japanese Language). Iwanami.

- 1959b *Amami-shotō Shohōgen no Gengo-Nendaigakuteki Chōsa* (A Glottochronological Study of the Dialects of the Amami Islands), in *Amami*. Nippon Gakujutsu Shinkōkai.

These two studies were not available to the compiler of this section at the time of writing. A detailed statement of their significance to Ryūkyūan prehistory may be included in a subsequent contribution to *AP*.

HYMES, D. H.

- 1960 More on Lexicostatistics: A Reply. *Current Anthropology*, 1(4), 340-345.

A few paragraphs (pp. 344-345) are devoted to a summary of the results of Shirō Hattori's Ryūkyūan glottochronological research, focused especially upon Amami Ōshima. The primary factual findings are summarized by Hymes as follows:

- Tokyo and Kagoshima have a shared gloss percentage of 85.1%.
- These two dialects show shared-retention percentages with the Ryūkyūs dialects ranging between 70.9% and 76.4%, 'with Kagoshima usually but a percentage point or two closer than Tokyo'.
- 'The Ryūkyūs dialects stand apart as a whole from mainland Japanese.'
- Shuri and Yonamine, two Okinawan dialects, share with one another 94.7% of the test items; the percentages of items which they have jointly with the Amami Ōshima dialect group ranges between 83.7% and 88.3%.

KOKUBU, NAOICHI

- 1959 Researches on the Shell-Mound of Komesu-bama, Okinawa (Okinawa Hontō Nambu Komesu-bama Kaizuka ni Okeru Shikutsu Chōsa). *Jl. of the Shimonoseki College of Fisheries, Civic Science*, 4, 37-47. (In Japanese with English summary)

This midden, at the southern tip of Okinawa, produced in a layer of blackish organic soil numerous potsherds, some with simple incised patterns, which closely resemble sherds found in late prehistoric shell middens on Amami and elsewhere on Okinawa. In this same stratum were also uncovered broken fish and wild boar bones and 'many roughly-flaked stone fragments'. (To be reported in greater detail in *AP*, 5)

- 1960 Researches on the Second Shell-Mound of the Omonawa District (Omonawa Daini Kaizuka no Chōsa [1954]. *Jl. of the Shimonoseki College of Fisheries, Civic Series*, 5, 63-70. (In Japanese with English summary)

A test trench into this midden on Tokuno Shima revealed a horizon of blackish, organic soil containing mollusk shells, broken bones of wild boar and fish, a small roughly chipped stone hoe, and abundant potsherds. The pottery bears strong resemblance to that of the Ushuku Mound on [Amami] Ōshima and of early Okinawan shell middens. One sherd, however, was from a thin, well-fired vessel 'with a small ear-type handle', and is similar to the pottery of Yaeyama in the southern Ryūkyūs. (To be covered more fully in a subsequent issue of *AP*.)

MOURANT, A. E. *et al.*

- 1958 *The ABO Blood Groups*. Thomas, Springfield.

Though the data are for the most part old, the value of viewing in a well-organized compilation data, hitherto prodigiously scattered, is substantial. Bringing together all known published and unpublished typing results on unselected samples is therefore a real contribution to anthroposerology and well deserves recognition here.

The first and largest series presents percentages of the ABO types with no distinction drawn between A₁ and A₂. Figures are given for the Ryūkyūs under the following headings, the compiler apparently unaware that all refer to the same geographical area: Kyūshū District, Okinawa Prefecture (p. 155); Ryūkyū Archipelago (p. 156); and Loochoo Islands (p. 157).

No Ryūkyūan data are included in the second series in which the subtypes of A are distinguished, nor do any appear in the final series which presents the A₁BO groups where A₂ has been proved absent.

NISHIMURA, ASAHITARO

- 1960 Sur la pêche primitive dans les pays sud-est asiatiques et, en particulier, dans les îles Ryu-Kyu. *Abstracts, VI^e Congrès International des Sciences Anthropologiques et Ethnologiques*, Paris, p. 196.

Two types of fishing cultures may be distinguished, a 'muddy coast culture' and a 'coralline coast culture'. One manifestation of the second type occurs in the Ryūkyūs, while another and much more highly developed form is found on the Shimabara Peninsula of Kyūshū. Ryūkyūan fishing methods are of special interest in a reconstruction of Japanese culture history because they still include various primitive features (their development having been so long restricted by the Shimazu lords of Kagoshima) and because these islands very probably served as one of the stepping-stones in the northward spread of the 'coralline coast culture' from its place of origin in South Asia.

SMITH, ALLAN H.

- 1960 The Culture of Kabira, Southern 'Ryūkyū' Islands. *Proceedings, American Philosophical Society*, 104(2), 134-171.

A single brief section (p. 137-139) of this general ethnographic survey sketches in outline form what little is known of the earlier existence of the village. The meager data are drawn from chance archaeological finds, local tradition, and documentary records. They indicate, *inter alia*, that at least one lithic, pottery-using, pre- or proto-historic culture existed in the area, and that archaeological research might profitably be undertaken.

TAKAMIYA, HIROE, and CLEMENT W. MEIGHAN

- 1959 The Nakamori Shell Midden, Hatoma Island, Yaeyama, The 'Ryūkyūs': A Preliminary Hatoma-Jima Nakamori Kaizuka Hakkutsu Gaihō). *Bunkazai Yoran*, Culture Assets Committee, Government of the 'Ryūkyū Islands', pp. 55-79. (In Japanese with English summary)

Artifacts of sandstone (1 'pestle', 1 grooved weight), of shell (9 perforated sinkers), of bone (1 point), and of iron (including 2 knives) were found in the 1958 excavation here reported upon. Porcelain trade-ware fragments and very large numbers of coarse, shell-tempered sherds were also recovered. Only the native pottery, of a type generally limited to Yaeyama, is described in detail in this article.

Three main types of vessels, all rather crude, were identified: two varieties of wide-mouthed bowls and a less common, smaller-mouthed pot. Common characteristics of one type of bowl are a round bottom, exterior carrying lugs, and an outer surface the lower half of which was rubbed in such a manner that a scratched surface resulted.

The site gives evidence of a brief period of occupation and a single culture contemporaneous with that of the Kabira (Ishigaki Island, Yaeyama) midden. However, it clearly belongs to the closing phase of the Ryūkyūan shell midden period, when sea fishing was of increased importance as a food source.

(Meighan supplies by letter additional information on the dating of the site. The porcelain has now been identified as Chinese Ming ware. Hence most of the occupation dates from the 15th and 16th centuries, rather surprisingly recent for a midden site and much later than the Atta-baru Mound material.)

TAKAMIYA, HIROE

n.d. Brief Summary of Atta-baru Excavation. *MS.*

This report presents further data on the small Atta-baru shell midden in southern Okinawa mentioned in *AP*, 2(1), 36. Only the results of the preliminary excavations of 1957 are described, though the site was further excavated subsequently.

In general, a single culture tradition is indicated. However, culture change from a land-oriented economy toward a greater interest in sea resources is demonstrated by a decrease in the ratio of snail shells (usually infrequent in Okinawan middens) to sea shells. Potsherds, quartz-tempered, were numerous. Though failing to reveal vessel forms, they indicate that ornamentation, consisting of incised lines, was confined to the upper part of the vessel. The pottery seems to be identical with that of Ogido Midden on Okinawa. Stone implements recovered include small, flat, ground stone axes and partly ground hammerstones (?). Bone artifacts are represented by wild-boar ulna awls, possible hair pins, and a flat problematical object with a straight, serrated edge. Shell objects, found in considerable numbers, consist of scoops and net sinkers, of bracelets, beads, and triangular, perforated pendants, and of effigy objects.

China Mainland

RICHARD C. RUDOLPH

Received 6 February 1961

AN IMPORTANT DONGSON SITE IN YÜNNAN

The excavation at Shihchai Shan in southwest China may well prove to be one of the most important Chinese archæological events in recent years. This site is an early necropolis on the top of a low mound called Shihchai (Stone Fort) Hill on the eastern edge of Tien Lake, Chinning County, and about twenty miles south of Kunming, the provincial capital of Yünnan. In 1952 and 1953 the Yünnan Provincial Museum in Kunming bought some ten bronze weapons whose unusual decoration aroused the curiosity of museum authorities. Repeated inquiries traced the origin of these objects, to Shihchai Shan. Rumour had it that large numbers of such bronzes had been found there during the early part of the Sino-Japanese war, but they had been scattered and could no longer be traced. A survey of the site was made in October of 1954 and the subsequent digging of two test trenches in March of 1955.¹ During this preliminary excavation two tombs were found and enough material was recovered to show that this site was of the same kind of early bronze drum culture complex that had long been associated with the Dongson culture of northern Indo-China. Realizing the importance of the site in southwest China, the Museum carried out extensive excavations from 1 November 1956 to 4 January 1957; twenty additional tombs were opened and over 3,500 objects made of bronze, iron, gold and semi-precious stones were recovered.²

This find is of prime importance for numerous reasons. In brief, it is the first site of this type found in southwest China and excavated under controlled conditions; it is extremely rich in grave goods and it throws much light on Dongson culture in general. Some of the material, hitherto unknown, is most startling and unusual and gives considerable information about the people who manufactured these things and at the same time poses new problems. Other material supplies additional examples of rare objects and may lead to the solution of some controversial problems. A description of the excavation of these twenty tombs and their contents is given in a very detailed and well illustrated report compiled by the Yünnan Provincial Museum.³ The present paper is a summary of a translation of the report made by the writer shortly after its appearance, in 1960.

¹ *Yün-nan chin-ning shih-chai-shan ku i-chih chi mu-tsang* 雲南晉寧石寨山古遺址及墓葬 *K'ao-ku hsüeh-pao* 考古學報, 1956, 1, 43-63.

² A preliminary account of this excavation, *Yün-nan chin-ning shih-chai-shan ku mu ch'ün ch'ing-li chi* 雲南晉寧石寨山古墓羣清理記 appeared in *Wen-wu ts'an-k'ao tzu-liao* 文物參考資料 1957, 4.

³ The definitive report, *Yün-nan chin-ning shih-chai shan ku mu ch'ün fa-chüeh pao-kao* 雲南晉寧石寨山古墓羣發掘報告 (Peking, September 1959), in two volumes. The first volume is a scientific report of 142 pages full of line drawings and tables; the second is folio size with 120 plates containing some 480 illustrations.

THE TOMBS

The tombs were all in the eastern part of the site and were scattered from north to south. A number of them had been disturbed by later burials and approximately ten other tombs had been destroyed by grave robbers. It is estimated that several hundred kilograms of bronzes were removed from this site during various illicit diggings prior to the first official excavation in 1955. The tombs are of irregular size, shape and depth. This is due to the fact that the top of this hill is strewn with large boulders which in most cases were used to form one or more sides or ends of the tombs. Wooden planks often were used to form the side or end of a tomb where there was no boulder. The original earth was used to cover the burial and this in turn was covered by a layer of pounded earth. Because there was no coffin chamber, many of the grave goods were broken or otherwise damaged in contact with the earth.

Only three tombs contained significant amounts of skeletal material. Two were clearly dorsal burials with the head toward the west. In the third tomb, the corpse had been severed at the waist; the lower half was lying on the right side, the upper half on the left, and the head was in the middle of the torso. Clear scars on the bone indicate that this mutilation took place at the time of burial and not at a later date.

Remains of coffins in five different tombs allow the reconstruction of a typical original. They appear to have been approximately 2 m. long and 0.85 m. wide, with the head slightly wider than the foot. Considerable quantities of flaked lacquer in some of the tombs indicate that the coffins were lacquered. In at least one tomb, planks about 4 cm. thick painted with red, black and green lacquer were placed under the coffin. On the sides and cover of the coffin in this tomb were found traces of fine, green and yellow silk and black and red lacquer.

GRAVE GOODS

Bronze

Implements. Of agricultural implements, there were found 21 plowshares for a type of foot plow, 28 spades and hoes, and 31 scythes and thin, long knives, the latter apparently for cutting grain or pruning. Tools for woodwork include 129 celts of various types, 23 chisels and a fragment of a saw about 22 cm. long and 4 cm. wide. Many are decorated with bird, rope and snake designs.

Weapons. The *ko* 戈, usually translated as halberd or dagger-axe, is represented by 113 examples which are divided into nine types, but this classification may be too broad to suit some specialists. Figure 1a illustrates the traditional type of *ko* in outline, measuring 26.5 cm. in length. It is notable for the peculiar anthropomorphic designs both on the blade and on the *nei* or shank. Nine identical weapons with these designs were found in tomb No. 12, and numerous other *ko* with variations of this design were found in other tombs, but prior to the discovery of this site only several examples of this interesting design were known and were the subject of much speculation. Figure 1b is another type of weapon classified as *ko*. The

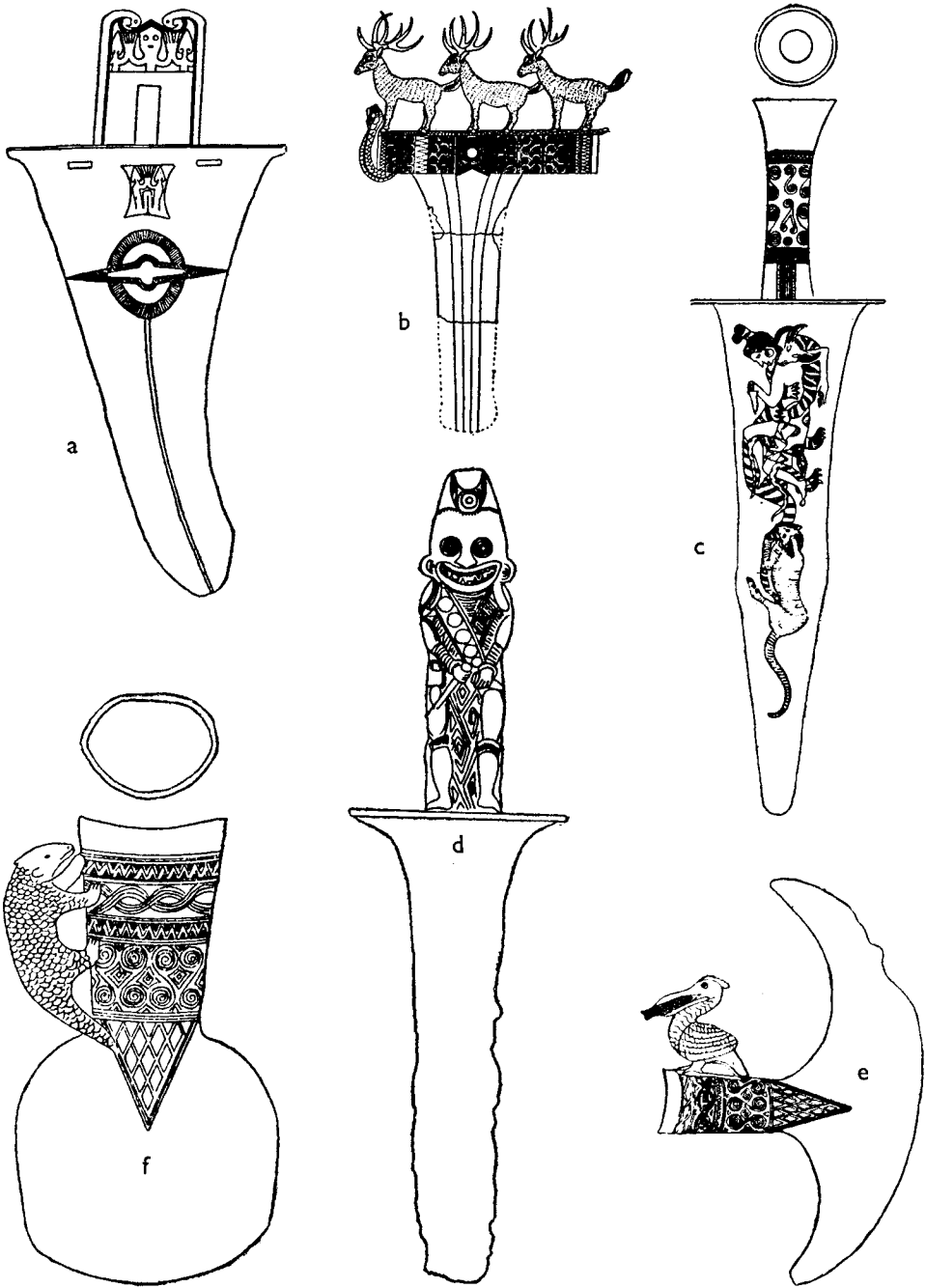


FIG. 1.

Bronze weapons excavated at Shihchai Shan, Southwest China
a-b. ko; c. sword; d. sword with human figure handle; e. yüeh; f. chi.

tubular socket is decorated with three deer cast in the round and welded to it. The surface of the tube is decorated with alternating bands of triangles and spirals with a large snake at one end.

Two hundred twenty-nine spear blades of eleven types were found. Some of them have animals in the round fastened to one side of the socket, and most of the sockets are decorated with spiral, plait and triangle designs; only a few of these objects are undecorated. Figure 1c is one of 214 swords found in these tombs. This particular example has an overall length of 29.5 cm. and the blade is 20.5 cm. long. They are divided into 13 types and all but nine are highly decorated with a wide variety of animal and geometric designs. Figure 1d is an example of one of several swords whose hilts are cast in the shape of human beings. In this case the hilt, 10 cm. long, represents a weird soldier or guardian whose eyes are formed by spirals which are a continuation of the line depicting his nose. He wears armour and holds a short sword in his right hand.

Other hafted weapons include 31 *fu*, 46 *yüeh*, 24 *chüeh*, and 6 *chi*. Most of them are decorated with figures of animals in the full round. Figure 1e and f are examples of the *yüeh* and the *chi* respectively. Fourteen crossbow mechanisms and 266 arrow points were also found.

Domestic utensils. Among some 20 objects which more or less resemble the usual type of bronze containers of this period in China, one deserves special mention. This is a *hu*, a vase-like vessel with a long, tapering neck measuring 5.7 cm. at the opening. The belly is 18.8 cm. in diameter and the ringed foot is 13.4 cm. in diameter. The total height is 40 cm. It is noteworthy for the exceptionally fine engraved decoration covering its entire surface which is divided into three registers, the upper two are on the long neck. In the first are two flying phoenixes and in the second three standing deer. The belly of the vessel is covered with an alternating series of two leopards and two phoenixes. Other objects in this category are braziers, boxes, garment hooks, a bronze table and six mirrors.

Cowrie shell containers. The twenty-seven containers made from, or resembling, the well-known bronze drums from northern Indo-China, found at this site, had been filled with cowrie shells at the time of burial. The container in tomb No. 13, for example, was entirely full of cowrie shells and seems originally to have consisted of two drums placed one on top of the other. The top drum disintegrated during the excavation, and the bottom one had to be reconstructed; its drum is 39.5 cm. and its circumference is 127.2 cm. at the top, 93 cm. at the waist, and 139.7 cm. at the foot. The top of the container was decorated with 21 cast figures of people and animals and seems to have represented a procession of people going to a fair. The height of the people ranges from 9 to 10.4 cm.

A cover for a cowrie shell container was also found in tomb No. 13, but the container itself was in fragments. Its decoration represents a battle scene and includes cast figures of thirteen men and one horse (Pl. II). It is 30 cm. in diameter and the mounted figure in the centre, larger than the others, is apparently the leader of one of the contending groups. It is entirely gilded and is 11.7 cm. high; the horse is 12.7 cm. long. The rest of the figures are on foot and none is gilded. Their heights range from 6 to 9 cm. The central mounted figure wears a helmet

and armour and from a belt around his waist hangs a sword. He is barefooted, his left hand holds the reins of his horse and his right holds a spear, thrusting down with it. The horse is running forward with raised head and its harness is shown in complete detail. A human head hanging below the horse's neck is apparently from the decapitated man lying on the ground to the left and rear of the horse. The other figures are engaged in individual or group combat and show a high degree of animation.

Another spectacular cowrie shell container, shown in Plate I, was found in tomb No. 12. The container is 53 cm. high and 29.5 cm. in diameter at its opening; two vertical cast tigers welded to its sides serve as handles. The cover for this container is 32 cm. in diameter and contains 127 people, a building and other objects in a crowded and complicated scene representing a human sacrifice. The height of the figures ranges from 3 to 6 cm. Some of them are bound, and one person, apparently a sacrificial victim, is being swallowed by a huge serpent. One particularly interesting aspect of this scene is that it clearly shows how the bronze drums were used; another is that the ceremonies are being carried out by women.

Musical instruments and figurines. Fifteen large bronze drums, also used as containers for cowrie shells, were found in these tombs. Large bronze figurines which originally stood upright on top of the drums had toppled in most cases under pressure of the surrounding earth. These drums obviously served the double function of musical instruments and of storage receptacles. A typical drum found in good condition is 31 cm. high, 143.5 cm. in circumference at the top, 112 at the waist, and 151.5 at the base. Their tops and sides are highly decorated. Such drums have been known for a long time and have been the subject of various studies. The important thing about this particular group of drums, however, is that they were excavated under known conditions, and they contain new pictorial elements, and were found associated with a very large number of other objects. With this group of fifteen drums we have an important body of material for studies in their chronology of such drums and their decoration changes.

In the east end of tomb No. 6, were found six bronze bells, arranged in two rows of three bells each. They are lentoid in section, have a flat mouth, and taper slightly toward the bottom. They have a suspension device at the top and they range in height from 29 to 40.3 cm. The bodies of all six bells are decorated with cast designs of eight dragons arranged in four rows of two dragons each. Near the mouth is a band of plait and spiral design.

Four examples of a type of mouth organ, the *sheng* 笙, were recovered. In general, these instruments consist of a peach-shaped bowl at one end, into which tubes of varying length may be inserted through openings, and a tapering hollow stem through which air is forced into the bowl and out through the tubes. The largest of the four is 60 cm. in length and has nicely cast figures of a tiger and ox welded onto the end of the stem.

Four figures of dancing barefoot women were found in the east end of tomb No. 17. Each figure is 9 cm. high and has a peg on the bottom of the feet whereby it was attached to some other object. One figure plays a *sheng*, and all of them wear large discs at their waists. A single composition containing eight dancers and

musicians attached to a framework was found in tomb No. 13. This object measures 9.5 by 13 cm. and is divided into two registers with the dancers above and musicians below. The whole object is gilded. Besides other dancing figurines, there were found nine large kneeling or squatting bronze figures in various tombs. They were originally placed on top of drums or cowrie shell containers. Five of them are women, all are barefoot and originally held a type of parasol in their hands. The height of the figures ranges from 26 to 47 cm. The height of the parasol in one case is 104 cm.

Handicrafts. Eighty-eight circular bronze objects were recovered from thirteen tombs. These apparently are the discs attached to the belts of some of the figurines already described; the surfaces of most of them are inlaid with malachite, jade, or carnelian. Some have bronze figures mounted either on the surface or around the edge of the disc. They vary in size from 8 to 18 cm. in diameter. Fifty-three ornaments from ten tombs are reminiscent of the so-called Sino-Siberian animal style. These plaques range from 5.5 cm. to 12.7 cm. in height and from 8 cm. to 20 cm. in length and are cast in the half round. They are well made and show an extremely high degree of artistic skill. Most of them represent animals in combat, including oxen, leopards, wolves, deer, tigers, boars and domestic animals. Plate IV is typical of these plaques. It measures 12.7 by 16.7 cm. and shows two animals attacking a deer. There are also hunting scenes in which mounted men attack wild animals. Other small objects in this category represent musical scenes, small figures of otters and water birds catching fish, the heads of birds and animals, and a group of prisoners.

Three plaques were found representing part of a structure in two or three levels and men in the act of capturing a bull going through a door. One from tomb No. 3, is 5.7 cm. high and 9 cm. long and has three rows of people above and around an open door. At the top of the structure are 10 kneeling people who appear to be spectators; in the middle, just above and on each side of the door, are eight kneeling figures with the exception of one standing directly over the door; in the bottom row there are nine figures in tense-kneeling or standing as though ready to seize the bull which has just started coming through the doorway.

Three models of houses were also found. Like the three plaques above, these are similar but not identical to each other. The houses recovered from tomb No. 3 is 9 cm. high, 12 cm. wide, and 7 cm. deep; it is supported by piles and thus, in a sense, has two levels; its roof is similar to that seen in Southeast Asia today. The house has one rectangular room with walls on the front and two ends and a verandah on these three sides. On the verandah and in the house there are people in various attitudes; some are playing music, some appear to be dancing, and others are kneeling. Steps lead to the ground in front of the house where there are people and animals.

Finials and horse trappings. Twenty-seven finely executed finials ranging from 5 to 12.5 cm. in length were found. They represented oxen, deer, hare, peacocks, falcons, snakes, human beings, bronze drums. In seven tombs 260 articles used as decorations or functional parts of chariots and harness were found.

Coins and seals. Three *pan-liang* coins were found in tomb No. 13 and give evidence that they belonged to the time of Emperor Wen (179-156 B.C.). A total of 180 *wu-shu* coins were found in tombs No. 5 and 8. They are divided into two groups; one dates from 140-73 B.C., and the other from 73-6 B.C. One small, square seal, measuring 1.1 cm. on each side and 0.45 cm. in thickness, which was found in tomb No. 20, appears to be a private seal, one of a pair, but its inscription cannot be identified.

Miscellaneous. Among other fragmentary and miscellaneous objects excavated, perhaps the most interesting is an engraved strip of bronze found in tomb No. 13 (Fig. 2). It was originally divided into at least five registers, four of which are complete and a fraction of a fifth still remain. It is 42 cm. long, 12.5 cm. wide, and 0.1 cm. thick; at the top is a hole for suspension; the top register which is the longest is about twice the length of the others; among other pictures it has a man locked in a cangue, a large bird resembling a pheasant, various animal heads and other unknown designs. A bound prisoner appears in the second register and another in a cangue in the third; in all cases they are kneeling and have braided hair. This plaque appears to be some sort of mnemonic device or an attempt at pictographic writing.

Iron

Implements. Among the ten iron implements recovered, the most interesting are two socketed celts from tomb No. 13. Their composition is of both bronze and iron, the lower third of the cutting end being of iron. The joint welding the two metals can be clearly seen. They are 13.5 cm. long and their blades are 4.4 cm. wide. Other iron implements include a celt, an axe and two knives.

Weapons. Thirty-four spear blades were found, half of which had bronze sockets. Two *chi*, a weapon which combines the halberd (*ko*) and the spear (*mao*), with iron blades and bronze sockets were found. A total of 69 swords were discovered; 48 of them had bronze handles and 16 had gold scabbards.

Gold

Weapons. Four tombs yielded a total of 35 gold scabbards. In most cases they were highly decorated and show that the craftsman of that time had a complete mastery of this medium (Pl. III).

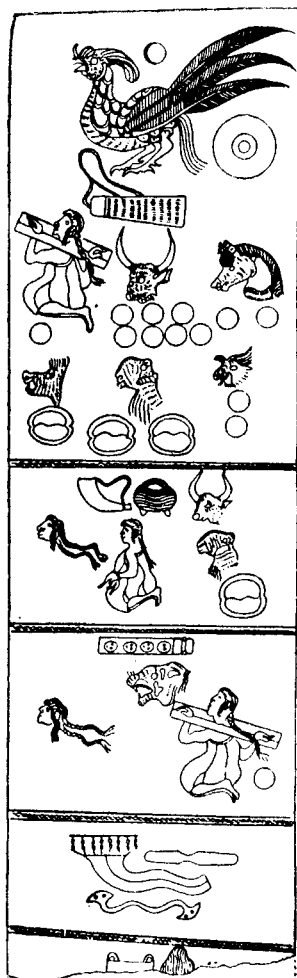


FIG. 2. Engraved strip of bronze from tomb No. 13, Shihchai Shan.

Ornaments. Three pieces of armour designed to protect the arm were found. These weighed 239, 200.7 and 418 grams respectively. All come from tomb No. 13 and No. 12. There were also hairpins, bracelets, plaques representing animals, buckles, and great quantities of quatrefoil and other types of buttons and plain and fancy beads.

Seal of the Prince of Tien. This was found in tomb No. 6 on the bottom of a lacquered coffin. It has a knob or handle on it in the form of a coiled and scaled snake. Each side measures 2.4 cm. and its body is 0.7 cm. thick. The overall height is 2 cm. and it weighs 90 grams. The knob and the body were cast in separate pieces and later welded. The inscription is engraved, and traces of the graving tool can still be seen. The four seal style characters read *Tien wang chih yin*, 'Seal of the Prince of Tien'. In the *Shih Chi*, or Historical Records, a fundamentally reliable work compiled in the first century B.C., in Chapter 116 it is recorded that in the second year of the Yüan Feng period of the reign of Emperor Wu of the Han dynasty (109 B.C.), the emperor presented a gold seal to the prince or king of the region of Tien. In that time Tien covered the area where these excavations were made, but whether this is the very seal that was presented by Emperor Wu, it is not certain. The gold in this seal is of 95/100 fineness.

Pottery and Stone Objects

Little pottery, in comparison with the large number of bronze articles, was found and most of it was in fragments. Only several containers were more or less complete but these are of interest because the *tou* type has the characteristics of those found in Changsha which date from the Warring States Period. Some of the pottery stoves, boxes and vases that could be reconstructed are very similar to those found in Western Han tombs at Changsha. Only two types of objects, whorls and pellets, were made of pure clay. The clay of other objects had considerable sand, shell or quartz in it. Most of the vessels were wheel-made and other objects were made by the scraper and beater method. The colour of the pottery varies from red to grey and is not uniform due to lack of control of the temperature. Pendants of all sizes, bracelets, perforated discs, buttons, beads and miniature figures of animals were made from stone, jade and other semi-precious stone. A considerable quantity of jade objects shaped like the controversial *magatama* of Korea and Japan were also discovered.

CONCLUSION

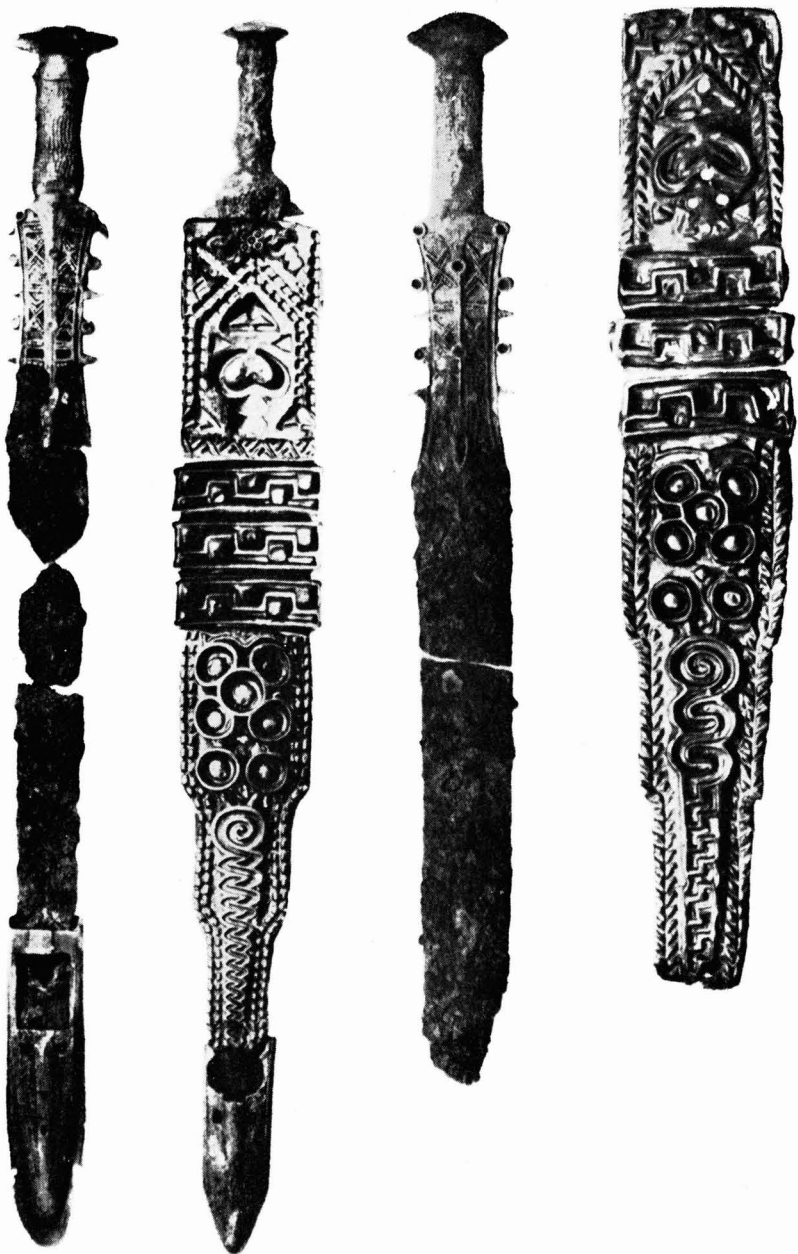
A long and involved conclusion stresses the importance of this material for the information it gives on the life of the people of the Tien region some 2,000 years ago. It discusses possible connections with other groups, their contacts with the Chinese from whom they must have learned bronze casting, and the date of the tombs. The twenty tombs uncovered in the second excavation are classified into four chronological groups according to the presence or absence of certain objects in them. This classification is clearly set forth in a detailed and very useful table at the end of the work. Relying principally upon coins, mirrors, weapons and the seal of the Prince of Tien, as well as the scarcity of iron and the absence of objects



Body and top of bronze cowrie shell container from tomb No. 12
at Shihchai Shan, Southwest China.



Top of bronze cowrie shell container from tomb No. 13
at Shihchai Shan, Southwest China.



Iron swords with gold scabbards from Shihchai Shan,
Southwest China.



Bronze plaque from Shihchai Shan, Southwest China.

of Eastern or Late Han date, the investigators establish relative and absolute chronologies. In brief, the evidence available leads them to conclude that these tombs cover in time the period of the Western Han dynasty or the first two centuries before Christ.

TAIWAN EXHIBITION

Chinese Art and Archaeology in the United States

After a long period of negotiation between the United States and Chinese governments and painstaking selection by a committee of American and Chinese art and museum experts, residents of this country will soon have an opportunity to see a large collection of the finest specimens of Chinese art and archaeology.

A detailed agreement covering the selection, transportation, handling, packing, exhibition, insurance, legal title and return of the objects was drawn up by the two governments and signed on 12 February 1960 by Ambassador George K. C. Yeh of the Republic of China and Huntington Cairns, Secretary-Treasurer and General Counsel of the National Gallery of Art.

The collection will be exhibited in Taiwan before and after it is shown in the United States. It will remain in the latter country for approximately one year and will be exhibited in only five cities. Other cities have requested to be included in the tour but these requests have been rejected by the authorities concerned due to the added risk of damage to the objects through the additional handling and packing that these shows would involve. The schedule, subject to slight variation, is:

Washington, D.C., National Gallery of Art	1 June–15 August 1961
New York, Metropolitan Museum of Art	15 September–1 November 1961
Boston, Museum of Fine Arts	1 December–15 January 1962
Chicago, Art Institute	15 February–1 April 1962
San Francisco, M. H. De Young Memorial Museum	1 May–15 June 1962

In the transportation of valuable art objects over long distances the question of safety naturally arises. In this particular case, every possible safeguard is being taken to protect these objects from loss and damage and to ensure their return to Free China. They will be carried both ways in United States naval vessels and will be heavily insured while in the United States. Title to these objects remains at all times with the Republic of China. Participating museums are liable for any loss or damage and many additional safety precautions are specified in the contract between the two governments. A Chinese official will be in charge of the collection at all times and he and a party of Chinese personnel not to exceed four in number will accompany it to all cities where it is shown.

The exhibition will include over 100 paintings as well as examples of calligraphy, pottery and porcelain, bronzes, jades and other objects from remote times to the 19th century. These objects have been selected from the great collections in the National Palace Museum, formerly kept on the Mainland but now in Taiwan. Those interested particularly in the archaeology of China will be disappointed to learn that, contrary to earlier announcements, the important Shang dynasty sculptures and bronzes from the famous Anyang excavations will not be included.

BIBLIOGRAPHY

Articles

Kaogu Xuebao 考古學報 (The Chinese Journal of Archaeology), 1, 1959.

THE ARCHÆOLOGICAL TEAM, BUREAU OF CULTURE, HONAN PROVINCE, The excavations of the neolithic sites at San-li-tien, Hsin-yang, Honan province, pp. 1-

YIN HUAN-CHANG and CHANG CHENG-HSIANG, Reconnaissance of the neolithic sites in the Ning-chên range region and the Ch'in Huai valley near Nanking, pp. 3-

THE PROVINCIAL MUSEUM OF HUNAN, The Ch'u tombs of Changsha, pp. 41-

THE ARCHÆOLOGICAL TEAM, BUREAU OF CULTURE, HONAN PROVINCE, The excavations of the Han tombs at Pai-sha, Yü hsien, Honan province, pp. 61-

THE PROVINCIAL MUSEUM OF KUEICHOW, The excavations of the Han tombs at P'ing-pa, Ch'ing-chen county, Kueichow province, pp. 85-

2, 1959

THE ARCHÆOLOGICAL TEAM, BUREAU OF CULTURE, *Inner Mongolian Autonomous Region*, Microlithic sites in the Left Banner of Barin, Chao Uda League, pp. 1-

THE LOYANG ARCHÆOLOGICAL TEAM, INSTITUTE OF ARCHÆOLOGY, Remains of the walls of an Eastern Chou City at Chien-ping, Loyang, pp. 15-

T'ANG CHIN-YÜ, Excavations of an architectural site of the Han dynasty near Sian, pp. 45-

THE ARCHÆOLOGICAL TEAM, BUREAU OF CULTURE, HONAN PROVINCE, Excavations of Western Han tombs at T'ieh-meng-chên, Hsin-an county, Honan province, pp. 57-

—Excavations of small Han tombs in Chien-hsi district, Loyang, 1955, pp. 75-

—Excavations of the Northern Dynasties, Sui and T'ang tombs in Chien-hsi district, Loyang, 1955, pp. 95-

SHEN CHUNG-CH'ANG, The rock tombs of the Southern and Northern dynasties in Chao-hua county, Ssu-ch'uan province, pp. 109-

3, 1959

CHAI LAN-PO, Notes on the bone implements of *Sinanthropus*, pp. 1-

AN CHIH-MIN, The neolithic site at Ssü-pa-t'an, Shan-tan country, Kansu, pp. 7-

CPAM,* HOPEI PROVINCE, The neolithic sites at Ta-ch'êng-shan, T'ang-shan, Hopei province, pp. 17-

YAO HUI-YÜAN, Note on the neolithic cultures of Ch'ing-kiang, Kiangsi, pp. 37-

HSÜ CHUNG-SU, Notes on the Yu *ting*, pp. 53-

HSIA NAI, A Byzantine gold coin discovered from a Sui dynasty tomb near Sian, pp. 67-

THE HUNAN PROVINCIAL MUSEUM, The Chin dynasty, Southern dynasties and Sui dynasty tombs at Changsha, pp. 75-

CHIN TSU-MING, The Celadon porcelain kiln sites of Yü-yao, Chekiang, pp. 107-

4, 1959

THE KWANGTUNG PROVINCIAL MUSEUM, The stone implements unearthed at Hsi-ch'iao-shan, Nan-hai county, Kwangtung, pp. 1-

WANG SSÜ-LI, Excavations of neolithic tombs at Ching-chih-chên, An-ch'iu county, Shantung, pp. 17-

TING YING, Notes on the neolithic rice husks unearthed in Hupei, pp. 31-

CHIANG TSAN-CH'U, Notes on the remains of primitive cultures in Kiangsu, pp. 35-

TSÉNG CHAO-YU and YIN HUAN-CHANG, On the 'Hu Shu Culture', pp. 47-

THE ARCHÆOLOGICAL TEAM, BUREAU OF CULTURE, ANHUI PROVINCE, Excavations of two Western Chou tombs at T'un-ch'i, southern Anhui, pp. 59-

YANG KÊN, Scientific analysis of the Chin dynasty alloy of aluminium and copper and its metallurgy, pp. 91-

1, 1960

KUO MO-JO, Notes on the inscription of a *Ting* unearthed at Anyang, pp. 1-

—Notes on the Ying-chien hsien, pp. 7-

LÜ TSUN-NGO, Archaeological reconnaissance at Lin-hsi, Inner Mongolia, pp. 9-

* CPAM: The Commission for the Preservation of Ancient Monuments.

- THE HONAN SQUAD, YELLOW RIVER RESERVOIRS ARCHÆOLOGICAL TEAM, Excavations of a Shang site at Ch'i-li-p'u, Shen hsien, Honan, pp. 25-
- THE ARCHÆOLOGICAL TEAM, BUREAU OF CULTURE, HONAN PROVINCE, Excavation of a Shang site at Lu-wang-fên, Hsin-hsiang county, Honan, pp. 51-
- CHU KUEI, Bronze dagger tombs at Shih-êrh-ying-t'ai-tzû, Ch'aoyang county, Liaoning, pp. 63-
- YANG KÊN, Preliminary report on the metallographical studies of the Warring States and Han iron implements, pp. 73-
- CHOU JEN, LI CHIA-CHIH, An investigation of the technical aspects of Ancient Chinese Ceramics, pp. 89-

2, 1960

- PEI WEN-CHUNG, On the problem of the 'Bone Implements' of Choukoutien *Sinanthropus*, pp. 1-
- THE KANSU PROVINCIAL MUSEUM, Remains of ancient cultures in Kansu, pp. 11-
- Excavations of a neolithic site at Huang-niang-tai, Wuwei county, Kansu, pp. 53-
- CPAM, CHEKIANG PROVINCE, Report on the excavations of 1956 and 1958 at the neolithic site of Ch'ien-san-yang, Wuhsing county, pp. 73-
- Excavations of the neolithic site at Shui-t'ien-fan, Hangchow, pp. 93-
- THE KWANGTUNG PROVINCIAL MUSEUM, Neolithic remains in central Kwangtung, pp. 107-
- Neolithic remains on the Hainan island, Kwangtung, pp. 121-

Kaogu 考古 (Archæology). Selected Contents, 1, 1959.

From the Editor, pp. 1-

- NIU CHAO-HSÜN, Take the mass line with earnestness in Archæological Work, pp. 2-
- TS'ENG CH'1, Critique of Professor Pei Wen-chung's 'Introduction to the Stone Age' in *K'ao-ku-hsüeh chi-chu* ('The Foundations of Archæology'), pp. 10-
- STUDENTS OF ARCHÆOLOGY IN THE DEPARTMENT OF HISTORY, PEKING UNIVERSITY, Critique of the reactionary viewpoint of Li Chi, pp. 14-
- CHIA LAN-PO, The palæolithic site at Hsi-kou, Li-ts'un, C'hü-wo county, Shansi, pp. 18-
- KO CHIA-CHIN, Brief report on the excavations of Han tombs in the vicinity of Ch'i-hsia-shan, Nanking, pp. 21-
- THE COMMISSION FOR THE PRESERVATION OF ANCIENT MONUMENTS, HOPEI PROVINCE, Brief report on the excavations of ancient tombs at Chiang-wu-ch'êng, T'zû-hsien, Hopei, pp. 24-
- HUNG CH'ING-YÜ, Researches in the discovery of the tomb of Tung-shou (A Chinese of Eastern Tsin dynasty) in An-yüeh, Korea, pp. 27-
- HUNG CHIEN-MIN, Notes on the tomb structure and burial system of the tombs in the suburbs of Chengtu, Szu-chuan province from the Five Dynasties to the Southern Sung, pp. 36-
- Archæological News*, pp. 40-48.
- Book Reviews*, pp. 49-59.

2, 1959

- THE EDITORIAL STAFF OF THE INSTITUTE OF ARCHÆOLOGY, The symposium on the forthcoming book 'Ten years of archæological work in New China', pp. 61-
- KUO YONG, Ten years of archæological work in Shansi province, a brief report presented at the Symposium, pp. 62-
- HSÜ SHUN-CHAN, A new development in the archæological work of Honan province, pp. 65-
- THE HAU-HSIEN SQUAD OF THE YELLOW RIVER RESERVOIR ARCHÆOLOGICAL TEAM, A brief report on the excavations at Liu-tzû-chêng, Hua-hsien, Shensi, pp. 71-
- HUANG WEN-PI, Archæological reconnaissances in Sinkiang (Chinese Turkistan), pp. 76-
- KUO LI-CHUNG, LIU CHIH-YÜAN and HSIAO YUNG-CHIN, The iron coins excavated at An-hsien and Chin-t'ang, Ssu-ch'uan province, pp. 82-
- WANG CH'ING-CHÊNG, Certain errors in the studies of the origin and development of ancient Chinese currencies, pp. 94-
- LIU HAN, The Northern dynasties pottery tomb figures of armoured horse and rider, pp. 97-
- Archæological News*, pp. 105-111.
- Book reviews*, pp. 112-118.

3, 1959

- YIN TA, Mobilizing everyone to participate in the task of writing 'Ten years of Archæology in New China', an address delivered at the Symposium of archæologists held in Peking, pp. 119-
- CHOU TAO, Some suggestions on the writing of archæological reports, pp. 128-

- SHÊN WÊN, A brief report on the ten years of archæological work by the Liao-ning Provincial Museum, pp. 132-
- SU TIEN-CHÜN, Major archæological finds of the city of Peking in the past ten years, pp. 135-
- THE KANSU PROVINCIAL MUSEUM, Brief report on the archæological surveys in the West Han-shui valley of Kansu, pp. 138-
- CPAM, SHANTUNG PROVINCE, The Eastern Chou site at east Ku-chên village near Tsingtao, pp. 143-
- Ma Chien-hsi, Brief report on the excavations of the Warring States and Western Han tombs of Yao-hsien, Shensi province, pp. 147-
- Brief report on the excavations of a Han tomb at Ku-t'ang-chên, Hangchou, pp. 150-
Archæological News, pp. 153-160.
Book Reviews, pp. 161-165.

4, 1959

- HSIA NAI, On the nomenclature of archæological cultures, pp. 169-
- THE HONAN SQUAD, YELLOW RIVER ARCHÆOLOGICAL TEAM, Reconnaissance of neolithic sites at Ch'i-li-pu, Shen hsien, Honan, pp. 176-
- THE KANSU SQUAD, YELLOW RIVER ARCHÆOLOGICAL TEAM, Brief report on the excavations of neolithic sites at Chang-chia-tsui, Yung-ching county, Kansu province, pp. 181-
- FU YUNG-K'UEI, Brief report on the excavations of Western Chou tomb in the eastern suburb of Loyang, pp. 187-
- CPAM, HUPEI PROVINCE, Brief report on the excavation of an Eastern Wu (Three Kingdoms) tomb at Lien-ch'i-ssü, Wu-ch'ang, Hupei, pp. 189-
- HUANG HAN-CHIEH, The excavations of a southern dynasty tomb at Ching-shen and a T'ang dynasty tomb at Tu-wu, Min-hou county, Fukien province, pp. 191-
- HSÜ TAO-LIN and LIU CHIH-P'ING, 'Ming T'ang' vs 'P'i Yung'—A discussion on the nature of a Han dynasty architectural site discovered in the Western Suburb of Sian, pp. 193-
- HO CHIH-KANG, On the date and the owner of the Eastern Han tomb of Wan-tu, Hopei, pp. 197-
Province Archæological News, pp. 203-211.
Book Reviews, pp. 212-

5, 1959

- The 21st Congress of the Soviet Communist Party and the Tasks of Soviet Archæology (translated from *Soviet Archæology* 1, 1959), pp. 219-
- CPAM, SHANSI PROVINCE, General survey of the work done by the archæological station at Hou-ma, pp. 222-
- THE PAO-CHI ARCHÆOLOGICAL TEAM, INSTITUTE OF ARCHÆOLOGY, ACADEMIA SINICA, Excavations of a neolithic site at Pao-chi, Shensi, pp. 229-
- CPAM, NANKING, Excavations of some Six Dynasties tombs at Nanking, pp. 231-
- KUAN-MIN, Reconnaissance of the ruined town of Chiao-ho (Yar-khoto) Turfan, pp. 237-
- TSÊNG CHAO-YÜ, On the meaning of some motifs found in the stone reliefs of the tomb at I-nan, Shantung province, pp. 245-
- LI YANG-SUNG, Some problems of ancient pottery making as seen from a study of the method of modern pottery manufacture by the Kava people in Yünnan, pp. 250-
- LIU HAN, The dating and some other problems of the painted brick tomb at Têng hsien, Honan province, pp. 255-
Book Reviews, pp. 268-272.

6, 1959

- TSÊNG FAN, Reconnaissance of the neolithic sites in Chang-pu county, Fukien province, pp. 273-
- LI I-YU, Some bronzes unearthed in Chao Uda League, Inner Mongolia, pp. 276-
- HSÜ MING-KANG, Brief report on the excavations of Eastern Han tombs at Ying-ch'êng-tzŭ, the city of Lü-shun and Ta-lien (Port Arthur and Dairen), pp. 278-
- CPAM, SHENSI PROVINCE, The excavation of an early northern dynasties tomb at Ts'ao-ch'ang-p'o near Sian, pp. 285-
- CPAM, THE CITY OF NANKING, Brief report on the excavations of Chin dynasty tombs at Lao-hu-shan, Nanking, pp. 288-
- MA TÊ-CHIH, Brief report on the excavations of the Ta-ming palace of T'ang dynasty at Sian, pp. 296-
- KISSELEV, S. V., Research work on the bronze age in the territories of U.S.S.R. in the last 40 years, pp. 302-

Archæological News, pp. 314-318.

Book Reviews, pp. 320-321.

7, 1959

CPAM, KANSU PROVINCE, The neolithic sites at Lanchou, pp. 323-

THE KANSU PROVINCIAL MUSEUM, Reconnaissances of the neolithic sites along the tributaries of the Wei river, pp. 326-

NING TO-HSÜEH, Excavations of neolithic sites and tombs at Chung-wei county, Ning-hsia Hui Autonomous Region, pp. 329-

CPAM, HOPEI PROVINCE, Reconnaissance of the neolithic sites at Chang-chia-k'ou (Kalgan), pp. 332-

—Excavations of the Eastern Chou and Western Han tombs at Wu-chi-ku-ch'êng, Wu-an county, Hopei, pp. 338-

—Ancient kiln sites at Wu-chi Ku-ch'êng, Wu-an county, Hopei, pp. 343-

—Reconnaissances at Chiang-wu ch'êng-tz'ü hsien, Hopei, pp. 354-

THE ARCHÆOLOGICAL TEAM, COMMISSION FOR THE EXCAVATION OF CH'ANG LING, Excavations of Ting-ling, the royal tomb of emperor Wan-li (continued), pp. 358-

AN CHIH-MIN, Archæology of Ch'inghai province, pp. 375-

Archæological News, pp. 369-372.

8, 1959

THE SSU-CH'UAN PROVINCIAL MUSEUM, Reconnaissance of the neolithic sites along the Yangtze river in Eastern Ssu-ch'uan, pp. 393-

—Archæological reconnaissance at the site of the Yangtze River Gorge Reservoir in Ssu-ch'uan, pp. 398-

—The excavations at the neolithic site of Shui-kuan-yin, Hsin-fan county, Ssu-ch'uan, pp. 404-

—The excavations at the Warring States site of Ch'ing-yang-kung, Chengtu, pp. 411-

—A Western Han tomb of wooden construction at Fêng-huang-shan, Chengtu, pp. 413-

—Brief report on the excavations of ancient tombs along the Mu-ma-shan irrigation canal, pp. 419-

—Excavations of lis along the Tung-shan irrigation canal, pp. 430-

FENG HAN-CHI, Notes on the great jade belt unearthed from the tomb of Wang Chien, pp. 436-

SHEN CHUNG-CH'ANG, and WANG CHIA-YU, Brief report on the excavations of ancient tombs in Ssu-ch'uan since the liberation, pp. 442-

Book Reviews, pp. 451-452.

9, 1959

NIU CHAO-HSÜN, Improving the quality of our work and carrying out with seriousness the guiding principle of conducting scientific research with diligence and thrift, pp. 453-

CPAM, HUNAN PROVINCE, A Ch'in dynasty tomb of wood construction at Tso-chia-t'ang, Changsha, pp. 456-

CPAM, SHANSI PROVINCE, A Han dynasty tomb with painted walls at Tsao-yüan-ts'un, P'in-lu county, pp. 462-

T'ANG CHIN-YÜ, Brief report on the excavations of a Sui dynasty tomb in the western suburbs of Sian, pp. 471-

CPAM, SHANSI PROVINCE, Two T'ang dynasty tombs at Chin-shêng-ts'un, Taiyüan, pp. 473-

CHANG CHI, Pottery making among the T'ai people of Hsi-shuang-pan-na 西双版纳, Yünnan, pp. 488-

LIANG CHAO-T'AO, On the distribution and dating of the neolithic cultures in the coastal regions of South-East China, pp. 491-

Archæological News, pp. 477-487.

10, 1959

HSIA NAI, A decade of archæological discoveries in China, pp. 505-

THE FACULTY OF ARCHÆOLOGY DIVISION, DEPARTMENT OF HISTORY PEKING UNIVERSITY, Archæological training at the Peking University in last ten years, pp. 513-

THE FÊNG-HSI ARCHÆOLOGICAL TEAM, 10A, Brief report on the excavations at Fêng-hsi near Sian (1955-1957), pp. 516-

THE HAN-TAN ARCHÆOLOGICAL TEAM, Brief report on the excavations at Han-tan, Hopei (1957), pp. 531-

THE LOYANG ARCHÆOLOGICAL TEAM, 10A, Excavations at Tung-kan-kou near Loyang, pp. 537-

- THE ANYANG ARCHÆOLOGICAL TEAM, 10A, Excavations of the Sui dynasty tomb of Chang Shêng at Anyang, pp. 541-
- FENG HSIEN-MING, Reconnaissance of a Sui dynasty celadon kiln site at Chia-pi-ts'un, Tzu hsien, Hopei, pp. 546-
- MA TÊ-CHIH, Excavations of the T'ang palace Hsing-ch'ing-kung at Sian, pp. 549-
- AN CHIH-MIN, Some comments on the neolithic cultures of the Yellow river valley, pp. 559-
- SHIH HSING-PANG, Some Archæology problems of primitive society of the Yellow river valley, pp. 566-
- YU SHÊNG-WU and CHEN SHIH-HUI, On *shu* 庶, pp. 571-
- WANG CHUNG-SHU, Notes on the seal of the king of Tien recently discovered at Ch'in-ning, Yünnan, pp. 573-
- Archæological books published in China in the last ten years*, pp. 576-

11, 1959

- THE KANSU PROVINCIAL MUSEUM, Reconnaissance of neolithic sites at Kuo-chia-chuang and Mo-tsui-tzû, Wu-wei county, Kansu, pp. 583-
- THE HUA-HSIEN SQUAD, THE YELLOW RIVER RESERVOIRS ARCHÆOLOGICAL TEAM, The second excavation at Liu-tzû-chên, Hua hsien, Shensi, pp. 588-
- THE WEI VALLEY ARCHÆOLOGICAL TEAM, 10A, Archæological reconnaissance of the Wei valley, Shensi, pp. 588-
- HSÛ HSÛ-SHÊNG, In quest of the Hsia remains in Western Honan (Summer 1958), pp. 592-
- CPAM, FUKIEN PROVINCE, Archæological work in Fukien, pp. 619-
- KAO CHIH-HSI, Notes on the Eastern Han architectural models excavated in Hunan, pp. 624-
- TSÊNG YUNG, Names for bricks from the Han through the Six Dynasties, pp. 629-
- Archæological News*, pp. 633-636.
- Book Reviews*, pp. 637-639.

12, 1959

- THE LOYANG ARCHÆOLOGICAL TEAM, 10A, Excavations of a Warring-States tomb in the western suburb of Loyang, pp. 653-
- CPAM, CITY OF CANTON, Brief report on the excavation of a T'ang dynasty wooden-chambered tomb at Huang-ti-kang, Canton, pp. 668-
- THE CHING-SHUI VALLEY ARCHÆOLOGICAL TEAM, INSTITUTE OF ARCHÆOLOGY SHENSI BRANCH OF ACADEMIA SINICA, The Sung dynasty kiln sites of 'Yao-chou ware' (Celadon) at T'ung-chuan, Shensi, pp. 671-
- TSÊNG YÛN, The tile ends of the Western Han palace and government buildings, pp. 676-
- MA TÊ-CHIH, The gilt silver cup-stands unearthed at P'ing-k'ang-fang of the T'ang capital of Ch'ang-an, pp. 679-
- HSIA NAI, In memory of the late Prof. Chêng Chên-to, pp. 682-
- Archæological News*, pp. 685-690.
- Book Reviews*, pp. 691-
- Index of titles of articles published in Kaogu*, 1-12, 1959, pp. 696-702.

Book Notes

Chinese Thought from Confucius to Mao Tse-tung by H. G. CREEL. Mentor Book, The New American Library of World Literature, Inc., New York 1960. 240 pp., index. US\$0.50.

Material culture can better be related to living culture and living peoples when one knows the philosophy of those peoples. The author presents briefly and clearly a history of Chinese philosophy from late Shang times to the present. For the archæologist who does not already have a good knowledge of Chinese thinking, this book is a very good foundation to start with.

One minor probable error is Creel's statement indicating the practice of polygamy in China (pp. 11 and 28). Polygyny yes, but I do not recall that polyandry was ever practised to any extent.

Southeast Asia

W. G. S.

Overall coverage for Southeast Asia continues to be difficult, probably in part due to language difficulties. At the time of this writing, the three areas in Southeast Asia for which no sections have been received are Indochina, Thailand, and Indonesia. In connection with the archæological work that I was doing in Malaya from the first of March into June of 1960, I visited all three countries in the area, with the exception of Cambodia, and thus I am able to give some information about them. In Indonesia I spent only three days, so unless a section arrives in time from Dr Soekmono, the Head of the Archæological Service of Indonesia, we will have to leave this blank.

For Thailand where there is great activity I have enough information for a short section. During my visit in Laos I saw great potentialities, a fair amount of local interest, but obviously conditions are not ripe. Though no archæological work has been reported from Vietnam by our Area Editor Dr Truong Bnu Lam, Director of the Institute of Historical Research, some information appears here thanks to the archæological exhibit from Vietnam which is now in the United States. From Cambodia there is no news.

With Mr B. A. V. Peacock as the new Head of the Department of Anthropology of the University of Rangoon, Burma will probably become active in prehistoric archæological research. From his report on Burma, activity has obviously been renewed in the field of historical archæology.

Malaya, Sarawak, and the Philippines continue to be most actively interested and involved in excavation and research. All indications show that it will continue to increase, and that from Sarawak it may well spread into Brunei and British North Borneo in the next few years. For British North Borneo, only a lack of financial backing holds it up; the interest is there. The future curator of the future National Museum of Brunei, Mr Shariffhudin, after working in the Sarawak Museum for some years, is now studying archæology and museum methods in London. With his return to Brunei in a few years there will be a start of activity.

As we know much action in the neighbourhood of Borneo stems from Tom Harrisson. His review of Wang Gangwu's 'Nanhai Trade' has brought a reply from Dr Wang, both are published below. In reply to Wang, Harrisson feels that Wang has clarified his position, and though not all disagreement has been resolved, the reply and counter-reply has gone far enough.

NANHAI TRADE

Dr Wang, Poli, Brunei, West and East

by TOM HARRISSON

The Journal of the Malayan Branch, Royal Asiatic Society, 31(2), for June 1958 was actually circulated in April 1960. It consists of a single and important paper (of 135 pages) by Wang Gungwu. Dr Wang, an Indonesian-born Chinese now in the Department of History, University of Malaya (Kuala Lumpur section) has written his very well-referenced thesis on 'The Nanhai Trade: a study of the early history of Chinese Trade in the South China Sea'. This starts in 221 B.C. and ends with the Sung in A.D. 960. A big field, and one of deep interest in Sarawak, in view of our major finds of early Chinese ceramics and other trade goods at many sites in the Sarawak River delta and from Tanjong Datu right up the coast to Niah, as well as at Kota Batu in Brunei. No other part of S.E. Asia has yet produced an equivalent wealth of direct evidences of this trade; and some parts (e.g. Singapore Island and most of Malaya) have none (so far).

Now this properly claims to be a study of ancient trade in the *South China Sea*. It contains 8 maps, 4 of which give crucial place-name attributions in this Sea. On these the substance and sequence of the study rests. Let us see how these are distributed in relation to a line drawn from ancient FUNAN, Cambodia, at the top of S.E. Asia, southward through Sumatra; this line leaves, in effect, a much larger part of the South China Sea to the east than to the west of it. But as the author lays great emphasis on Funan and as it is located beyond dispute this makes a good reference base.

POINTS IN S.E. ASIA SHOWN
IN RELATION TO FUNAN SOUTHWARD

<i>Map at page</i>	<i>East of Line</i>	<i>West of Line</i>
36	0	2
56	0	5
69	0	1
98	0	10
Total	0	18

Thus no place is given a significant meaning—in this great time scale—which lies East of the centre of this line, which bisects Sumatra. No point is located in Borneo, Celebes, Sulus or Philippines, for instance. Many are put on the Malay Peninsula.

Now two things at once appear regarding the two E. and W. sides of this arbitrary but meaningful N.-S. line:

a. c. 90% of all properly documented and excavated known archaeological material related to the periods (all T'ang or earlier) here reviewed come from East of the line—although far *more search* has been made to the West c. 60% of this comes from Borneo, 20% from Celebes and 10% from Philippines.

b. A mild re-examination of his attributions shows that they are often put West *rather than* East for little better reason than supposition and personal (or other) preference (or unconscious bias?).

The first point hardly needs elaboration. Has anyone yet found a T'ang site in Malaya? Why is Singapore island KOSONG? This does not *necessarily* invalidate the place-name attributions. But it does suggest that special care should be taken not to *prefer* to put them at once in places where *no* supporting evidence of archaeological character is available and where there is in fact a reasonable alternative with at least an equal claim of plausibility.

It is this failure to take full and balanced notice of reasonable alternative—my point two—that I find so conspicuous and so unscientific in re-analysing Dr Wang's extremely clever and scholarly (as regards the terminology, linguistics and literature) argument. Let me take from his text only two examples, from pages 39 and 57.

Page 39.

'There is no doubt that Chu-po was Java-Sumatra.'

But surely Pelliot's conclusion is perfectly open to doubt and is simply one solution of several. *Because* a French scholar said it, in 1904, it does not become automatically true by accretion. And when we reach Dr Wang's own footnote we clearly see why. There are (even in his clues) three lines of possible alternative solution therein. Let me take the crudest.

He writes: 'The identification was based on the resemblance between the locations given for Chu-po and Tu-po in the Sui dynasty'—both being 'in the great Fu-nan southern portion of the South China Sea and *east* of Fu-nan'.

EAST of Funan: the 'obvious' place, as it lies *also* south-east, is Borneo. There is no word, here or anywhere else, to make this unreasonable. And the work of recent research, not only in archæology but in wind and tide flows and the problems of sail (Dr Wang often treats the whole operation of human movement and trade regardless of these primary controls) might well lead any impartial person to choose a place that actually *was* East of Funan instead of S.S.W.-S. of it (Dr Wang's *own* map on p. 36).

Page 57.

Once started on this westerly thesis, the author becomes bound by it. He even explains (p. 57) away the term Po-li, which we had all always thought was the one place *certainly* in Borneo (Brunei of today). Why this change? Because an amateur Chinese writing in *JMBRAS* in 1948 'finds the identification with Panei in Sumatra by Schnitger the most satisfactory'. P. M. Schnitger, in his *Forgotten Kingdoms of Sumatra* (Leiden 1939) used arguments of the usual kind in works

where the author almost unthinkingly sets out to centre the demi-universe of culture amidst the nexus of his own terrain—in this case, Sumatra. Nothing that he says there on this subject is supported by actual results and proved late in the three decades of subsequent research.

Not even Dr Wang seems happy about this, though. He allows that alternatively it *might* be Bali—‘If (I quote his p. 57) the description of its great size was merely an exaggeration, this seems likely enough’. Yes: but enough for what? If a description of great size is to be reduced to Bali, what criteria of judgment outside the ego operates validly at all?

So: east lies west and great is merely small? What, then, is left of right thinking?

In my view, the whole of this study is unconsciously subjective. It could—and indeed must—be entirely rewritten as regards orientation based on an objective appraisal of all the facts and factors. The picture which gives for the South China Sea is lopsided, too narrow. We need a wider vision, based on a fuller understanding beyond limited or own areas, little countries and private localizations.

It is not difficult for a scholar to turn place-names in almost any direction if he so wishes. It has been done in all too many ways in recent years, in fields other—and sometimes more immediately painful—than pre- and proto-history. But in such scholarship very special safeguards are required, lest distortions (often within the scholar’s head unrecognized and based on the *atmosphere* of his research centre and studies) creep in and eventually foul up that frank and fair picture with which alone the scholar should be concerned, honestly.

This is not for one moment to suggest that Dr Wang has acted in ill faith or with any deliberate intent whatsoever. On the contrary, those who knew him tell me he has an outstandingly fine mind and will undoubtedly make major contributions to the area’s history in the future. I am compelled to say though—speaking from this sadly university-bereft great (or at least greater than Bali!) island—that he has not adopted an adequate approach in this perhaps immature study (his preface tells us that the report was subsequently completed in 1954). Without any knowing intention, he has produced a partisan picture. This picture is important for all S.E. Asia, right or wrong.

If Dr Wang feels I have here been unfair, in this rather brief and summary critique, this *Journal* will gladly publish his reactions, amendations or even amends! From the one-time ‘land of the head-hunters’ we reserve the right to strike back, of course—in a scholarly kind of way.

Mr Harrisson and the 'western bias' of the Nanhai Trade

by WANG GUNGWU

I am grateful to Mr Harrisson for the opportunity to say something I have long maintained. The game of locating Chinese place-names in South-east Asia is not the sport it used to be. He does me an injustice, however, by implying that I enjoy this in the same old way. In fact, I had suggested several times in my 'Nanhai Trade' study (pp. 22, 39, 42 and 57) the futility of identifications on the basis of our present knowledge of the region and had made very few identifications myself. Out of a total of more than 200 place-names for early South-east Asia that I have seen, I have attempted to identify only 27—a modest number, even Mr Harrisson must admit.

It is not true that the 'substance and sequence' of my study depends on the place-names, as Mr. Harrisson suggests. The study is on the *Nanhai* Trade and the emphasis is on the Chinese trade, on the Chinese attitudes towards the trade and the conditions in China which affected it. This is clearly stated in the preface. Such an emphasis was deliberate and largely because I had abandoned any attempt to take place-names too seriously at this stage. Much has yet to be done and my study is to give most of the Chinese background to help future work on the subject of South-east Asian trade itself.

Mr Harrisson does me another injustice with his table on the 'Funan line', East and West. He gives the impression that perhaps some of the 18 names I have put to the *west* of the 'line' should have gone to the *east*. He gives me no credit for leaving out 'eastern' identifications which I was 'reasonably unsure of' by failing to note that I had mentioned identifications made for Borneo (pp. 39, 42 and 57) but had found myself unable to pin them down any further. He can hardly blame me for not venturing into the territories of Celebes and the Philippines for which, as everyone knows, there are even fewer hints in the historical texts available to us. I need hardly add that the 18 names, I have put on my maps, I am sure lie west of the 'Funan line' as Mr Harrisson defines it. His directions are by no means certain when one notes that Java where I placed three of my names is clearly *east* of any line drawn south of Funan. His point about the abundance of archæological material in the 'east' as compared with that in N. Sumatra and on the Malay Peninsula, however, is well made and deserves every attention.

Mr Harrisson says that my 'western bias' is unscientific. If he is referring to the fact that I have done no archæology, I admit I am unscientific. But the 'western bias' is not my bias. If Mr Harrisson were to reflect on all the Chinese texts on the sea trade, he will see that I have at least tried to be *historical*. Consider the following material:

- a. the *Han Shu* passage with its interest in India, *circa* 1st century A.D. (pp. 19-24)
- b. the *Hou Han Shu* record of T'ien-chu and 'Ta-ch'in' tributary missions, 2nd century (pp. 27-29)

- c. K'ang T'ai's inquiries about the West at Funan, 3rd century (p. 40)
- d. Fa-hsien's voyage home, early 5th century (pp. 42-43)
- e. the conclusions in the *Sung Shu* (*chüan* 97), 5th century (pp. 57-58)
- f. the Western 'bias' in the preface to *Liang Shu* (*chüan* 54), 6th century (I have not quoted this, but it is echoed in the section on Tun-sun, p. 54)
- g. the *western* route to Ch'ih-t'u in *Sui Shu*, early 7th century (pp. 66-68)
- h. the westward travels of I-ching and his successors, 7th and 8th centuries (p. 103)
- i. the famous Chia Tan route to the West in *T'ang Shu*, about A.D. 800 (pp. 104-105)
- j. the passages showing the dominance of Persians and Arabs at Canton and Yang-chou, 8th and 9th centuries (pp. 79, 81, 84 and 96-97)

The above together with the material on Indochina constitute the bulk of the material on Chinese relations across the 'Southern Sea' which is still available to us. They have led to the impression that the Western trade of the Chinese came first and the Nanhai trade was one of its by-products. I believe this to be incorrect and suggest that the Western trade by sea was established because of the growth of the Nanhai trade which was a trade with its own reason and momentum. There is, in fact, little in the records to persuade me to go further east than I have gone, and I really have no vested interest in putting more places on the Malay Peninsula than is justified. I do, however, hold that once the Western trade was opened for the Chinese, the variety and the value in China of Western goods made it possible for the Western trade to dominate.

I can understand Mr Harrison's concern lest Borneo and the Philippines be neglected. I concede that in the case of P'o-li I was not wary enough of Pelliot's methods. But I don't think Mr Harrison has any right to call Professor Hsü Yünt's'iao, now of Nanyang University, an 'amateur Chinese' in that contemptuous way. Professor Hsü has been working and publishing on South-east Asian history and geography constantly for at least 25 years. Although he may have been wrong about Schnitger, he certainly deserves the respect I have given to him. Mr Harrison should also in fairness have noted that I did not try to place P'o-li anywhere on my maps and had left the issue open. I had pointed out what the difficulties of identification are and noted that P'o-li had also been identified with Borneo (p. 57). As for Chu-po, I am still convinced that the nearest we can get to identifying it is to place it in Java-Sumatra and, in my map, Java at least is *east* of the 'Funan line'.

It should be added that I would be the last to deny the value of Mr Harrison's discoveries in Borneo. We are all eagerly awaiting the tomes describing his finds. I agree there will be much more to say about Borneo and the Philippines in the future and I hope Mr Harrison will be able to tie up the looser 'eastern' ends soon. I have one reservation to make which I hope Mr Harrison will note when he starts to write. This is that I believe the *Nanhai* trade functioned largely through the tributary system and the tribute missions tell an important story (see my introduction to Appendix A, pp. 118-9). If we examine the missions to China in Appendix A of my study, the following picture emerges (not all the places are exactly located

but, with the exception of those I describe as 'unidentified', it is clear which side of the 'Funan line' they were):

- a. the Han dynasties: of the 6 missions, 5 were from the 'west', the 6th, Yeh-t'iao, being unidentified;
- b. the Wu and Chin dynasties: all 16 of the missions were from either north or west of the 'line' (by north, I refer to Lin-yi and Funan and other countries on the *west* coast of the South China Sea);
- c. the Southern Dynasties:
 - i. during the Liu Sung, 26 out of the 44 missions were from north and west of the 'line' and, even when counting Ho-lo-tan (Java, 6 missions) as *east*, only 7 missions came from the east, leaving 11 missions from the unidentified P'o-huang and P'o-ta;
 - ii. during the Nan Ch'i, all 4 of the missions came from north of the 'line';
 - iii. during the Liang, 36 of the 38 missions came from north and west and only 2 from P'o-li did not;
 - iv. during the Ch'ên, 14 of the 15 were from north and west and T'ou-ho is unidentified;
- d. the Sui, T'ang and Five Dynasties:
 - i. during the Sui, 10 of the 11 missions came from north and west and the one from P'o-li did not;
 - ii. during the T'ang, 66 of the 84 missions were from north and west, 11 from Java (Ho-ling and She-p'o) and 1 from P'o-li from the east and 6 from unidentified places (T'ou-ho, Su-nai, T'o-yüan, Nou-t'o-yüan, K'un-lun and To-p'o-teng);
 - iii. during the Five Dynasties, 3 of the 4 came from Champa and 1 from Srivijaya.

If Mr Harrison excludes Java as he does in his table, there will only be, out of a total of 222 known missions, the 5 from P'o-li to consider, and possibly another 19 missions from the 9 unidentified places, as from the 'east'. While the picture above does not mean that there is proportionately less trade from the 'east', it is an important indication to Mr Harrison that he need be very careful not to claim too much and that my picture is not as lopsided and partisan as he tries to make out.

Once again, may I say how much I appreciate the opportunity Mr Harrison has given me to speak my mind about Chinese place-names in South-east Asia. I am grateful to him, and so must all students of this subject, for warning us against local atmosphere and personal preferences.

Book Review

MURDOCK, GEORGE PETER: *Africa, its People and their Cultural History*. New York, McGraw-Hill Book Company, Inc. 1959. 465 pp., maps, Tribal Index.

Africa is not within the area of our interests, therefore no attempt is made to review the book as a whole, but only those portions of the book having to do with prehistoric migration and contact between Africa and Southeast Asia.

African-Indonesian contacts particularly as concerns Madagascar, have been noted for some time, but they have never become a subject for detailed study. Murdock examines these contacts for two reasons: *a.* because of the obvious contact between Southeast Asia and Madagascar; and *b.* because of the major importance of Southeast Asia derived crops to a sizable block of African societies.

The section of the book directly concerned with Malaysian contacts is Part Seven: 'Cultural Impact of Indonesia' (pp. 212-270); and also the immediately preceding chapter on the 'Ancient Azanians' (pp. 204-211). The prehistory of these contacts is presented by Murdock as follows:

Chronology: 1000-1 B.C. '... Increasing prominence of Indonesians from Borneo in the monsoon trade across the Indian Ocean, resulting in their settlement on the East African coast and the introduction there of important Malaysian food plants'. A.D. 1-500: Spread of Malaysian food plants throughout the Guinea Coast and into the Cameroon and Congo Basin, and displacement of Indonesians '... in the maritime trade with the East, resulting in the migration of the Indonesian settlers in East Africa to Madagascar as the ancestors of the modern Malagasy' (p. 45).

Reconstruction: 'At some time prior to the beginning of the Christian era the coastal Maanyan of southeastern Borneo, close kinsmen of the people bearing this name who still survive in the adjacent interior of that island, had developed skills in navigating their outrigger canoes in trading with the inhabitants of nearby islands. Their territory lay along a trade route no less famous than the Sabaeen Lane—one connecting Malaya, Sumatra, and Java with the southeast coast of China through the Philippine Islands and Formosa. The first ambitious overseas ventures of the coastal Maanyan doubtless occurred along this route. That it was being plied at the time, and had already been connected with the Sabaeen Lane, is indicated by information received from Professor H. Otley Beyer of Manila, in a personal communication, that coins of Alexander the Great have been unearthed in the Philippine Islands in sites along the route.

'With experience gained in this eastern maritime trade the coastal Maanyan ventured ever further west ... ultimately to Azania [a portion of the east coast of Africa] ... farther south ... so they would inevitably have discovered the Comoro Islands and Madagascar, at that time completely uninhabited.

'If they found products of commercial value in Madagascar, some would doubtless have settled there to exploit them. They would have found the virgin forests of the Island ideal for the swidden (slash-and-burn) cultivation of the dry rice and the root and tree crops which they were wont to grow for subsistence on their home island. It is significant that the cultivation of wet, or paddy, rice, already established at that time in Java, Sumatra, and Malaya had not yet been introduced to Borneo, where most inhabitants subsist by swidden cultivation even today' (pp. 214-215).

The crops of importance in Africa, derived from Southeast Asia Murdock designates as the Malaysian complex. These include dry or swidden cultivated rice (*Oryza Sativa*), Polynesian arrowroot (*Tacca pinnatifida*), taro (*Colocasia antiquorum*), yam (*Dioscorea alata*, *D. bulbifera*, and *D. esculenta*), banana (*Musa paradisiaca* and *M. sapientum*), breadfruit (*Artocarpus incisa*), coconut palm (*Cocos nucifera*), Areca palm (*Areca catechu*), betel (*Piper betle*), and sugar-cane (*Saccharum officinarum*) (pp. 207-208). Another food plant which to Murdock appears to be associated with the Malaysian complex is the sweet potato. However, he 'cannot bring himself to accept the early transmission of the sweet potato to Azania as more than a hypothesis worthy of special investigation' (pp. 223-224).

There is no point in commenting on the African portion of Murdock's 'Cultural Impact of Indonesia'. To a non-Africanist, his arguments seem logical. However, there are some comments that can be made on the Indonesian end of this contact.

Murdock's chronology is logical, as is his route of movement. He brings the 'Indonesian' generally along the coasts using the monsoons and disagrees with '... various theories which would bring one or more of the elements in the population of Madagascar to that island by direct voyages from Indonesia or the Pacific Islands. ...' (p. 214). The period from 1000-1 B.C. is just the time when distant sailing within Southeast Asian waters indicates the quality of seamanship needed for distant sailing outside those waters [see *AP*, 3 (2)].

I do not disagree with Murdock's reconstruction, nor do I agree with it. I feel his evidence is much too flimsy to be so positive. Murdock bases his southeastern Borneo (Maanyan) source for the Malagasy on linguistic evidence. Lexico-statistics indicates a separation between Malagasy and Maanyan of about 1900 years (p. 209). However, there is no reason that the Maanyan ancestors could not have moved into Borneo from some other common homeland elsewhere in Southeast Asia. The relationship between Malagasy and Maanyan I do not question, but the location of the Maanyan 1900 years ago I would question.

Though he may well be right, it is much too early to lay down a definite route for the Sabaeen Lane. Murdock's data confirming this route are the coins of Alexander the Great, unearthed in the Philippine Islands. These 'coins' are two in number, one discovered during road work in Pangasinan and the other dug up in a garden on the outskirts of Manila (Beyer, H. Otley, Outline Review of Philippine Archaeology, *PJS*, 77, pp. 224 and 231). These can be used to date or locate nothing.

In further support of Borneo as the homeland of the Malagasy rather than Sumatra or Java, Murdock uses the slash-and-burn agriculture and non-irrigated rice agriculture brought to Africa in this first 'Indonesian' contact. He says that 'It is significant that the cultivation of wet, or paddy, rice, already established at that time (A.D. 1 or thereabouts) in Java, Sumatra, and Malaya, had not yet been introduced to Borneo, where most inhabitants subsist by swidden cultivation even today' (p. 215). As yet unpublished archaeological and historical research suggests that paddy rice agriculture did not reach Malaya until after A.D. 1000, probably did not reach Sumatra more than 300 years earlier or Java more than 200 years before that, if any.

It is time Southeast Asia-African contacts be made a specific object of research.

W. G. S.

Vietnam

W. G. S.

Whereas little of archæological importance occurred in Vietnam during the last year, beyond its borders there is an active interest in the country.

In the United States there is now a travelling exhibition on the 'Art and Archæology of Vietnam', sponsored by the National Collection of Fine Arts. It is the first major archæological exhibit ever organized abroad by the Vietnamese Government in co-operation with a foreign museum. The Vietnamese expert in charge is Mr Nghiem Tham, Chief of the Archæological Service of Vietnam. In the United States the primary organizers are Mr Thomas M. Beggs, Director of the National Collection of Fine Arts, and Dr Olov R. T. Janse.

The catalogue of the Exhibition has not reached me at the time of writing, to indicate what objects are included. What I have is the GENERAL INTRODUCTION to the catalogue (Smithsonian Publication 4430). This gives an extremely brief résumé of the history of Vietnam, starting with Dongson. The only part I disagree with is the dating associated with Dongson (not the site of Dongson). Referring to Dongson: 'It constituted the oldest and most important of four related cultures that flourished during the last two centuries B.C. and the first two A.D.' While it may have lasted as a distinct culture to this late date, my feelings are its beginnings in North Vietnam were certainly at least 500 years earlier. The map on the page opposite the above quotation shows "Trade Routes and Migration—First Centuries B.C. and A.D." With the trade routes indicated therein, I agree; as to the migration route which starts from southern Vietnam and goes south of the Philippines, along the north coast of New Guinea and out to the Society Islands in the Pacific the date given is A.D. 1st century and later. If by this route is meant the route taken by the Polynesians in their moving into the Pacific (which seems likely), the dating is several hundred years too late. As long as Vietnam is taken as the source for this migration it could just as logically be the source of the migration route to the west which in moving south along the coast of Africa ultimately arrived at Madagascar.

With these two reservations, I find the presentation of Vietnam's history and the relating of many of the art styles and motifs (that are presumably represented in the Exhibit) to the history and prehistory of Vietnam well done.

Another major happening of interest in the archæology of Vietnam is the publication of the first volume of Malleret's research and excavations on Oc-Éo and the Mekong Delta; it will bring much light into the darkness surrounding Funan.

BIBLIOGRAPHY

Books and Articles

MALLERET, LOUIS

1959a *L'Exploration Archéologique et les Fouilles d'Oc-Éo, L'Archéologie du Delta du Mékong*, Vol. I and Planches (separate), *PEFEO*, 43.1959b *La Civilisation de Dong-Son; d'après les Recherches Archéologiques de M. Olov Janse, France-Asie*, 160-161, 1197-1208.

A combined review of Janse's three volumes of *Archaeological Research in Indo-China* and general information relating of some of the artifacts from Oc-Éo and other sites in Indochina.

Book Review

MALLERET, LOUIS: *L'Exploration Archéologique et les Fouilles d'Oc-Éo, L'Archéologie du Delta du Mékong*. *PEFEO*, 43, 1959. Vol. I and Plates (separate), 463 pp., 72 figs., 97 pls.

Malleret's long awaited report on his excavation at Oc-Éo is now appearing in the three volumes of 'The Archaeology of the Mekong Delta'. Malleret is including not only the report on Oc-Éo, but is putting it in a larger context of the archaeology of the Transbassac, from which he will reconstruct an account of the civilization of Funan. This first volume includes site descriptions of the archaeological sites of the Transbassac, the excavations of Oc-Éo, the architecture of the Transbassac, and the statuary of the Transbassac. The next volume to appear will cover the smaller artifacts recovered from his excavations, such as the pottery, metal and stone tools, and jewelry, showing the industries of the inhabitants of Oc-Éo. The third volume will present his conclusions as to the culture of the people of Oc-Éo, its relationships with neighbouring civilizations, and its commercial position.

The report is a result of field work begun in 1938 and suddenly terminated in 1945. Further field work other than occasional aerial survey was not possible. A major difficulty was locating archaeological sites. Aerial survey located canals, basins, and other changes in surface contour or below surface changes by differences in the vegetation. Observation of the material used in foundations of houses and pagodas pointed out the areas to investigate. Information from Buddhist monks, foresters, school teachers, and particularly farmers proved helpful. All these and more methods were used to locate the many sites which had previously gone unnoticed. Malleret is particularly to be praised for bothering to try field work in this area as for a long time the area had been regarded as barren of ancient sites. It had been generally felt that the delta was a recent feature, so obviously old sites could not be present. To confirm this the local inhabitants knew of no ancient sites. Malleret logically explains this away with the fact that the present day Vietnamese inhabitants are recent arrivals while the descendants of the Khmers who might have known about such sites no longer live in this area.

Early in his work Malleret ran into another difficulty. Once a site had been located on the ground, how could it be accurately placed on a map. Due to an error in calculations first noted in 1902, the base point in Hanoi for all maps of Indochina was incorrect resulting in a displacement towards the east of about 300 metres. This, combined with difficulty in fitting the newly found sites into the old numbering system and finding names for the sites when the Vietnamese names for localities in the area were not yet permanent and were also difficult to transcribe, led Malleret to a compromise which he did not find completely satisfactory. His difficulties suggest that it is extremely important that historic and prehistoric archaeologists for the whole of the Far East should as soon as possible arrange for a meeting, or some other form of discussion, whereby solutions to these cartographic problems can be arrived at which would be consistent and as convenient as possible for all areas.

Malleret's survey of the Transbassac resulted in the discovery of 126 new archaeological sites, 52 whole statues, and portions of 33 other statues. With previously known sites this makes 138 sites. These sites are systematically listed, located and briefly described in the first part of this volume, the total area being subdivided into nine sub-areas, each the subject of a separate chapter. Among the sites were a few pre-Funanese, neolithic sites, caves or shell mounds, in which was found pottery with affinities to the pottery of Culao Rua and of Samrong Sen.

In his concluding discussion of the section on architecture, Malleret presents a possible evolution of architectural methods for Funan (358-359). He advances this evolutionary series not with certainty, but based on a set of co-ordinated presumptions. Pile dwellings and thus the use of wood was the type of common structure throughout the whole period. The first form of the more permanent type of structure is made in much the same way as the wooden pile dwellings. A second phase of this form makes use of granite flagstones, the idea suggested by megalithic construction (slab graves) or diffused from Indian models. Wood working methods were used in making use of the stone, the stone requiring a box-shaped form without elaboration. The second stage of development makes use of bricks, but without lintels or small columns of stone. The third stage brings in the use of stone lintels and leads into Parmentier's early brick structures which were squat in form with little decoration followed by taller more slender buildings with much decoration. The use of carpentry methods in stone continues through all Funan architecture and into the architecture of Angkor. Descriptive sections previous to these conclusions present the architectural finds of the excavations, including ceramic decoration and sculpture of architectural elements.

The final section of this volume, on statuary, is organized somewhat differently than the other two sections. No conclusions are presented. The majority of the section is purely descriptive of the statues and portions thereof which were recovered. However, the introductory chapter on the general characteristics of the statuary places the finds described afterwards in context with the surrounding area and time.

The great majority of the illustrations of this volume are bound in a separate book. They include the usually excellent French maps, a number of them showing the old canals, and plans of architectural remains. The plates are not all of excellent quality, but at the worst, they are at least satisfactory. Pictures taken from the air showing the old canals and the outline of Oc-Éo are very interesting in illustrating the use of aerial survey.

Thailand

W. G. S.

Due to a misunderstanding no section was received from Mr Chin You-di for this issue. However, as I have some news of interest from Thailand, I present here a brief section.

FIELD WORK AND RESEARCH

An organized prehistoric archæological expedition is underway in Thailand. It is called the Thai-Danish Expedition and is financed primarily from Danish funds; it has for its object the 'Systematic exploration, cave and field excavations and scientific research into the prehistoric aspects of the area of the valley of the Kwaë Noi river in Changvat (Province), Kanchanaburi' (The Siam Society 1960).

This area was chosen because of the discoveries there by H. R. van Heekeren of palæolithic stone tools, Karl Heider's further palæolithic discoveries in 1956, the finding of prehistoric pottery by Nai Chin You-di, and the recent discovery of two bronze drums in a cave in the valley of the adjacent Kwaë Yaay river.

The suggested programme for this seven months' expedition is as follows:

1. Operations in the field during 6 months. Mainly in the Kwaë Noi area.
2. During that time a *systematic survey* of the valley of the Kwaë Noi river could be made over a distance of about 250 km. from Kanchanaburi to the Three Pagoda Pass on the border with Burma. Means of transportation would be: Land rover, small train, launch, elephant and foot.
3. Preliminary *survey* of the Kwaë Yaay; especially with regard to the research into the *bronze culture* (2 drums found, cave known).
4. Systematic *excavation* of selected sites in the Kwaë Noi valley. Caves and sites in the open field. It might be possible to make simultaneous excavations at 3 sites.
5. *One month in Bangkok*, of which 14 days after arrival and 14 days at the end of the field campaign. This one month is a maximum.

The proposed participants for the expedition are four Europeans, two or three Thai officials, and general staff. The European contingent is one Danish scientist, two prehistorians and one draftsman. The leader of the expedition is not known, but two members are Per Sorensen, a young Danish prehistorian, with the National Museum in Copenhagen, and H. R. von Heekeren, conservator of the Anthropological section for prehistory in Asia at the State Museum for Ethnology at Leiden, Holland. One of the Thai officials is Mr Chin You-di, the regular editor for this Fine Arts Section and Head of the Archæological section of the Fine Arts Department of Thailand.

From van Heekeren we have the following information on the expedition through 1960. 'The results of the Thai-Danish Prehistoric Expedition are simply overwhelming. We are now [January 1961] working at a neolithic burial place where we found already 4 human skeletons with numerous funeral gifts [entire pots and stone axes]. In our first trip we discovered numerous palæolithic and mesolithic sites and also Bronze-Age sites with kettledrums and pottery and bronze socketed axes and bells.'

It is hoped that we will be able to have a summary report on this work for the next *AP* Summer issue.

EXHIBITION

There is at the present time touring the United States an art exhibit of archaeological and historical treasures of Thailand. The exhibit is being sponsored by the National Museum of Thailand in Bangkok, the University of Indiana, and seven leading American Museums. The sponsoring American Museums where the exhibit will appear, in the order of the exhibitions, are: The Metropolitan Museum of Art, New York; Museum of Fine Arts, Boston; the Toledo Museum of Art, Toledo, Ohio; Los Angeles County Museum; Seattle Art Museum; California Palace of the Legion of Honor, San Francisco; and the Academy of Arts, Honolulu, Hawaii.

The catalogue of the exhibit combined with a brief history of the art of Thailand has been put out in book form under the title *The Arts of Thailand*, 'A Handbook of the Architecture, Sculpture, and Painting of Thailand (Siam), and a Catalogue of the Exhibition in the United States in 1960-61-62'. It is edited by Theodore Bowie of the University of Indiana, the organizer of the whole project. The book is in three sections: the largest is on 'The Architecture and Sculpture of Siam' by Alexander B. Griswold. Elizabeth Lyons has a chapter titled 'A Note on Thai Painting', while the catalogue itself with notes on many of the objects, is by M. C. Subhadradis Diskul.

Some idea of the exhibit can be gained from the sub-divisions presented in the catalogue which are as follows: I. Images and Objects in Stone and Marble (1924); II. Figures in Stucco and Terra Cotta (25-51); III. Bronze Figures and Heads (52-107); IV. Objects in Bronze, Brass and Lead (108-136); V. Gold, Jewelry, Niello and Silver Objects (137-177); VI. Ceramics (178-223); VII. Objects in Wood (224-241); VIII. Paintings (242-263), including Illuminated Manuscripts (249-263); and IX. Miscellaneous Objects (264-295). A number of the objects in the exhibition are reproduced in the good illustrations that accompany the two articles by Griswold and Lyons. It is a fine book to go with what must be a very fine exhibition.

In June 1960, was formed the Association for the Preservation of National Art Treasures. M. L. Pin Malakul, the Minister of Education of Thailand, was elected Chairman. The Association is non-political and has the following objectives: *a.* to promote restoration and preservation of national art treasures in their original state. *b.* To encourage study and research on national art treasures. *c.* To propagate knowledge and information on national art treasures. *d.* To promote the setting up of local branch associations in order to preserve national treasures of each locality. *e.* To communicate with other institutions on preservation of national art treasure, domestic or foreign.

The association will be only a unit to co-operate in the work of restoring, maintaining and disseminating information of the national art treasures, for example in archaeological research or in the Danish archaeological survey of the Kwae Noi Valley in which the Association may join. The most important work which the Association will undertake is to help the Government preserve valuable art treasures

and historical sites for further studies and for propagating information on cultural treasures of the nation.

BIBLIOGRAPHY

Books and Articles

BOWIE, THEODORE (ed.)

1960 *The Arts of Thailand*. Indiana University *et al.*

BUSCH, NOEL F.

1959 *Thailand: An Introduction to Modern Siam*. New York, D. van Nostrand Company, Inc. This includes a short chapter on 'Origins' (pp. 48-60), and 'Arts' (pp. 130-146).

THE SIAM SOCIETY

1960 *Outline for a Thai-Danish Prehistoric Expedition Campaign October 1960-May 1961*, (mimeographed). Bangkok, The Research Centre, The Siam Society.

SEIDENFADEN, ERIK

1958 *The Thai Peoples*, Book 1, The Origins and Habitats of the Thai Peoples with a Sketch of their Material and Spiritual Culture. Bangkok, The Siam Society.

Union of Burma

B. A. V. PEACOCK

Received 18 January 1961

FIELD WORK AND RESEARCH

During the 1959-1960 season the Archæological Survey of Burma carried out field work which, in terms of technical standards and promise for the future, will undoubtedly stand as a landmark in the development of archæology in this country. Although, through tradition as much as official policy, emphasis still lies with the historical and protohistorical periods, wider prospects are now clearly envisaged. Future work in the earliest historical sites is to be undertaken as part of an integrated plan of field research with the definite aim in view of establishing a reasonably precise point to which a sequence of Burmese prehistoric cultures may be related as field work progresses. Active co-operation between the Archæological Survey and the Anthropology Department of the University of Rangoon, where interest is centered primarily on the prehistoric, should do much to develop our knowledge of the earlier periods which have been too long neglected.

Peikthanomyo

The site selected by U Aung Thaw, Conservator of the Archæological Survey, for the 1959 excavations was Peikthanomyo (Vishnu City), an ancient and now partially derelict walled town in the valley of the Irrawaddy. The discovery of characteristic burial urns during a superficial investigation in 1905 had linked Peikthanomyo with the Pyu culture as exemplified by finds at the classic site of Tharekhittara (Old Prome). Today Peikthanomyo lies 12 miles west of Taung-dwingyi on the motor road to Magwe which cuts through the south-east corner of the fortifications. The brick walls of the town survive to an average height of 5 ft. on the north, south and east sides, each of which seems originally to have possessed three gates. The western side was protected only by two small lakes and by a bend of the Yan Pe stream which forms a natural moat on the south-west corner of the town. The space contained by these boundaries, natural and artificial, has an area of over three square miles.

The most prominent remains within the town limits are of a rectangular brick enclosure situated somewhat to the north-west of a central point. This enclosure is bisected by a brick partition running roughly north to south and in the western half are the ruins of a rectangular structure, also brick-built. This has been interpreted as a palace and its courtyard. A curious feature of Peikthanomyo is a long, frequently interrupted ridge of brick debris which, in continuing the line of the palace enclosure partition, links the palace with the southern defences of the town.

Thus, although no traces of the ridge have yet been distinguished to the north of the palace, the ancient Peikthanomyo was roughly divided into two halves, an eastern and a western. No satisfactory explanation of this bipartite plan has so far been advanced.

Apart from a gentle slope from east to west the ground within the town is devoid of natural relief, but over it are scattered nearly one hundred debris mounds, while outside the walls occur innumerable low mounds all of which are believed to be graves containing cremated urn burials. For his first season's work, which lasted from the 11th June to the 1st September 1959, U Aung Thaw selected for excavation a typical burial mound outside the north wall (Site KKG. 1—for Kokkogwa village tract) and the most prominent of the debris mounds within the town limits (Site KKG. 2). Both sites were excavated simultaneously under the direction of U Aung Thaw with the assistance of U Hla Pe of Taungdwingyi Museum and members of the staff of the Archaeological Survey.

Site KKG. 1

Before excavation Site KKG. 1 was a low oval mound $3\frac{1}{2}$ ft. high, 48 ft. on the long east-west axis by 24 ft. across. Digging was carried out on a grid of squares with sides measuring 8 ft. and separated by baulks 1 ft. wide. The investigation revealed four parallel rows of brick walls of which a maximum number of six courses survived. The walls were about 18 in. wide, between 6 ft. and 8 ft. apart and seem to have been erected directly on the contemporary ground surface. Short walls standing at right angles to the main ones had originally formed a series of rectilinear enclosures which were in fact the burial chambers. Unfortunately, owing to subsequent disturbance by cart traffic on the northern and southern sides, only the central brick enclosure remained intact and this was found to be archaeologically sterile.

A total of six complete urns and one broken pot was recovered from other parts of the mound. According to the excavator, no evidence of any sequence in the burials was discoverable. It is claimed that the urns were simply placed within the brick enclosures and covered over with earth which was also found filling the pots and mixed with the cremated remains. Other small finds were rare and comprise two iron nails, two terracotta pellets and an irregularly shaped terracotta hopscotch.

The urns themselves are of unglazed red earthenware and are quite elaborately decorated with appliqué strips of clay arranged in wavy bands and prominent flanges usually either grooved or notched and crenellated. Three are equipped with particularly ornate knobbed lids.

Site KKG. 2

Site KKG. 2 is about 300 yards north of the palace enclosure and before excavation was the most prominent of the debris mounds within the town walls, standing to a height of $14\frac{1}{2}$ ft. and some 150 ft. long by 100 ft. wide. Digging was carried out on a grid of 15 ft. squares and laid bare the remains of an interesting brick structure. The floor level of the structure was encountered at a depth of 8 ft. and ground level at 12 ft. Deep digging in limited areas 5 ft. square reached natural

soil immediately below the foundations. After each box had been completely excavated and the sections recorded, the baulks were removed thus exposing the entire structure to view.

The building measures $98\frac{1}{2}$ ft. by $34\frac{1}{2}$ ft., the long axis being oriented slightly west of north. The plinth stands to a height of $3\frac{1}{2}$ ft. and is erected on a foundation laid 1 ft. 1 in. below ground level and composed of four courses of bricks. The plinth is quite plain and the walls which are $4\frac{1}{2}$ ft. thick rise 1 ft. 8 in. inside its top edge.

The building is rectilinear in plan and is divided along the length into two sections by a partition wall. The eastern section forms a corridor $8\frac{3}{4}$ ft. wide while the western section is further subdivided into eight separate rooms each approximately 10 ft. by $9\frac{1}{2}$ ft. The single entrance is centrally placed on the eastern side and is provided with a projecting porch or vestibule measuring internally $10\frac{1}{2}$ ft. by 10 ft. Despite the great thickness of the outer walls there are a large number of windows each about 3 ft. wide and with a sill about $1\frac{3}{4}$ ft. above floor level. The vestibule has two such windows, one looking north and the other south. The corridor has one window at each end and six in the eastern wall, three north of the entrance and three to the south. Of the eight small rooms, each has a window in the west wall, while the two corner rooms are supplied with an additional one in the end walls. Access to these rooms is by separate entrances giving onto the corridor.

An interesting feature was observed on each side of the threshold of the main entrance leading from the vestibule into the corridor. This consisted of a semi-circular pattern of coloured pebbles set like a mosaic into the floor. Traces of a similar pattern were seen on the inside of the doorway to the small room at the north end of the building. Inside the entrance to the third room from the south end a variant pattern with pointed apex was found.

The inference that there was some sort of upper story is supported by the nature and quantity of the debris contained in the levels contemporary with the violent destruction of the building. Moreover, at the southern end of the corridor is a rectangular brick platform which, when excavated, was buried in charred wood and ashes. It is plausibly suggested that this marks the landing for a wooden staircase.

The structure is built entirely of large, well-fired bricks. The vestibule and corridor are paved with fine plaster and patches of plaster on the walls still retain vestiges of white-wash and a decoration of yellow paint. The doors were of the single leaf variety and swung on iron bound tenons pivoting in iron sockets let into the sill and top of the doorway. Wooden beams fitting into openings in the brickwork could be slid across to fasten the doors which were solidly made of 3-in. thick wood, iron bound and studded with iron bosses. Access to the entrance vestibule from the ground outside was by a flight of wooden steps. Quantities of charred wood and ash found round the outside of the building and 5-in. square slots in the brickwork of the plinth occurring at regular three foot intervals combine to suggest the former existence of some sort of wooden platform or verandah surrounding the building.

There is abundant evidence that Site KKG. 2 met a violent end and was destroyed by fire. Stratigraphy indicates that a large part of the building collapsed at once, the debris sealing in the plinth and walls in places to a height of 8 ft. This was followed by a period when the destruction was completed slowly by natural forces and the whole finally covered by a layer of humus. The site was not subsequently reoccupied.

Pottery fragments occurred in large quantities throughout the excavation. Other small finds recovered comprise beads of terracotta and semi-precious stones, terracotta hopscotches, cowries and shells, a bone (ivory) hairpin, two iron rods probably kohl sticks, three small, thin bosses, one of gold and the others of silver, a nib-like object of steatite, a flat, rectangular stone seal, a terracotta seal impression, the rim of a copper vessel, a few unfinished stone objects, one of which looks like an unfinished yoni and several iron bosses and nails.

The terracotta sealing bears on its surface three imprints of a circular seal. The inscription, which on the original seal was in relief, runs round a central dot. It is claimed that the letters are of an evolved Gupta-Brahmi script and it has been assigned by palaeographer U Mya to a period between the 4th and 8th centuries A.D. The sense of the inscription is in some dispute. Three variant readings have been suggested which in order of plausibility, are: *Siri Mita raya*; *Siri mitara ya*; *Siri mapata raya*.

The ceramics and other finds still await detailed study, the results of which will, it is hoped, be published at a later date. In his Preliminary Report (cf. Bibliography) the excavator restricts himself to an assertion of general affinities between Peikthanomyo and Tharekhittara, the type site of Pyu culture. A more definite pronouncement will be possible only after further work has been carried out at this site.

Peikthanomyo: Second Season

Excavations within the walls of Peikthanomyo were continued during the first half of 1960. Two mounds, Sites KKG. 3 and KKG. 4, were investigated, but the results have not yet been published and study of the associated finds is not complete.

Site KKG. 3, the larger of the two mounds, contained a circular structure 34 ft. in diameter with square projections at the cardinal points. This was found to be composed of a brick retaining wall 4 ft. thick enclosing a core of brick rubble. Surrounding the whole were two low concentric ring walls of brick. The excavator, U Aung Thaw, has remarked on the similarity of the basic plan to the famous stupa of Nagarjunakonda in the Kistna region of India, although apparently the wheel motif is not so fully worked out at Peikthanomyo. Moreover, stratigraphy seems to indicate that the structure was not originally free-standing, but was enclosed in a mound of earth.

At Site KKG. 4 the foundations of a square structure comprising a cella with circumambulatory corridor were brought to light. U Aung Thaw considers this to be a possible prototype of some smaller early temples at Pagan itself.

Associated finds are disappointingly few. At KKG. 3 the rubble core contained potsherds and between the outer walls were found three symbolical Pyu coins and sherds of a ware decorated with stamped impressions of auspicious signs.

CONSERVATION

The Archæological Survey has a continuing programme of conservation work carried out on a large number of scheduled monuments. During 1959 a total of Kyats 90,000 was spent on the preservation of sites at Pagan, Ava, Prome, Sagaing, Mingun, Pegu and Mrohaung in Arakan. In addition to routine work in this field, the Archæological Survey administered a sum of Kyats 120,000 which was made available by the Government in 1958 for the rehabilitation of the Shwezigone Pagoda at Nyaungu just north of Pagan. The Shwezigone Pagoda is one of a number of important Buddhist monuments at Pagan and elsewhere which are in regular use at the present time and which are normally cared for by private groups of trustees. In this instance the funds were utilized primarily in regilding the stupa.

EPIGRAPHY

The Archæological Survey is hoping to be able to revive the publication of the lithic inscriptions of Burma which was begun in the old series known as *Epigraphica Birmanica*. To this end a collection of rubbings is being built up and during 1959 twenty-nine new inscriptions were recorded.

MUSEUMS

Previous reports on Burma in this series have omitted mention of the Archæological Field Museums at Pagan, Hmawza and Mrohaung which are maintained by the Archæological Survey. These are all pre-war foundations, the museum at Pagan having been established in 1904, and are intended mainly as repositories for the smaller antiquities discovered in their vicinity. Stray finds are continually being added to their collections.

In 1955, the first and so far the only purely private museum in the Union of Burma was set up at Taungdwingyi. This is supported entirely by the efforts of an independent group known as the Cultural Promotion Society.

BIBLIOGRAPHY

Books and Articles

U AUNG THAW

- 1959 *Preliminary Report on the Excavation at Peikthanomyo*. Archæological Survey of Burma, Rangoon.

Published with financial assistance from the Asia Foundation. In Burmese with full English translation, thirteen plates, one map and six figures. Gives a short account in the space of nine pages of the first season's work at this site, including the historical (legendary) background, a description of the finds and tentative conclusions.

UNION OF BURMA

Annual Reports of the Directorate of Archæological Survey.

During the post-war period these reports have been published somewhat sporadically and are entirely in Burmese. The first, for the year 1947, was issued in 1949. A report covering the period from 1948 to 1952 was published in 1954. Reports for the years 1955 and 1956 were published in 1958 and 1959 respectively. Reports for 1957, 1958 and 1959 are in the press.

Malaya

ALASTAIR LAMB

Received 4 January 1961

FIELD WORK AND RESEARCH

Kedah. From July to December 1959 the Hindu temple site on the Sungei Batu Pahat in Central Keda [*AP*, 3(2), 34] was completely excavated and partially reconstructed by M. Louis Contant of the *Conservation d'Angkor* and Dr A. Lamb on the basis of plans prepared by Dr B. P. Groslier. Finds made during this work included five intact foundation deposits.

Tambun, Perak. The rock paintings [*AP*, 3(1), 32] at Tambun were investigated by J. M. Matthews, Curator of Museums. Excavation of the debris at the foot of the cliff on which the drawings were made revealed a number of worked quartz pebbles which Matthews placed in 'a Hoabinhian context'.

Johore Lama, Johore. In early 1960 Dr W. G. Solheim II and J. M. Matthews excavated a portion of the old Malay fort at Johore Lama. Their study of the stratigraphy of this site promises to solve some of the problems of its history in the 16th and 17th centuries A.D. A large number of sherds of Chinese ceramics, mainly blue and white export wares of 16th century date, was recovered. These are now being studied by Matthews who hopes, with the aid of his stratigraphical evidence, to date some of them very closely. A great deal of earthenware fragments were also found, which are being studied by Dr Solheim.

Keburong, Malacca. Villagers from this *kampong* while digging an irrigation ditch came across an inverted stoneware jar covering some 80 pieces of Chinese ceramics, 58 of them intact. The hoard, which J. M. Matthews believes to be all of about the same date, 15th century, is now being studied in the Kuala Lumpur Museum.

Malacca Town. Construction work on St Pauls Hill, Malacca, in November 1960 revealed portions of old foundation walls. These were investigated by J. M. Matthews, whose conclusion was that here was part of the Royal palace of the Malacca Sultanate. Over 7,000 sherds of Chinese ceramics, mainly blue-and-white but some celadons, were recovered. On the basis of the stratigraphical context of these sherds Matthews was definite that the structures here antedated the Portuguese capture of Malacca in 1511. It would seem that the foundations revealed here extend right across St Pauls Hill, and there are good prospects that much more of this site will soon be excavated.

BIBLIOGRAPHY

Books and Articles

LAMB, A.

- 1959a Restoring the temple on the River of Cut Stone, *MH*, 5(2).
- 1959b Some notes on the distribution of Indianised sites in Kedah, *Journal of the South Seas Society*, 15(2), December.
- 1960 Report on the excavation and restoration of Chandi Bukit Batu Pahat, *FMJ*, 5.
- n.d. Chandi Bukit Batu Pahat; three additional notes, *FMJ*, (in press).

MATTHEWS, J. M.

- 1959 Rock paintings near Ipoh, *MH*, 5(2).
- 1960 A note on the rock paintings recently discovered near Ipoh, Perak, *M*, 59, Art. 1, 1-3.
- n.d. A check list of Hoabinhian sites in Malaya, *FMJ*, (in press).

SOLHEIM, WILHELM G., II

- 1960 Excavations at Johore Lama, *MH*, 6(1), 17-23.

WANG GUNGWU

- 1960 The Nanhai Trade, *JMBRAS*, 31(2), 1958. (See p. 56-61)

British Borneo

BARBARA HARRISSON

Received 19 December 1960

SARAWAK

During 1959 and throughout 1960, a number of research programmes were carried out both by members of the Museum's staff and by specialists from overseas. Benedict Sandin, Research Assistant of the Sarawak Museum, concentrated mainly on Papan Turai (small planks with symbolic carvings, which may have been developed from an ancient script) and on translating folklore of the extinct Serus, pre-Dayak peoples of the Kelaka River.

Dr Roger Peranio, from Canberra University, was in Sarawak from October 1959 to February 1960, working amongst the Bisayas of the Limbang District. Some of his results have already been published in the *Sarawak Museum Journal*.

Dr Brian de Martinoir is currently in the field in the Upper Belaga district, studying social structure, linguistics, folklore and myths of the Kajangs and Kayans there. His work is sponsored by Canberra University and in conjunction with the Museum is on mythology and the recording of songs and stories on tape.

A recent guest (December 1960) is Professor W. G. Geddes who is here on a three-month visit during his sabbatical year from Sydney University. He concentrates on his old haunts at Tapuh (Land Dayaks, 1st Division of Sarawak), to record changes there since 1951.

George Jamuh, Assistant Curator of the Sarawak Museum, went to the Philippines in November 1960 assisted by a grant of the Asia Foundation. He will be working for six months with Professor Frances Lynch at the Ateneo de Manila on Bisaya-Visaya and related problems of contacts between Borneo and the Philippines in prehistoric and recent times.

Not least, Dr George Schaller, from the New York Zoological Society, was attached to this Museum from November 1960 to January 1961, in order to assess the complexity and difficulties of an intensive field study of Orang-utans (*Pongo pygmaeus*) in their wild state, continuing work already begun on ape study by the present writer in Borneo; and he himself in the Congo (on Gorillas).

Census. The Sarawak and adjacent Governments carried out a combined census of population during the year 1960, the Museum assisting in the group definitions and other basic work. Results will be available through the Government Printer, Kuching, in due course. The last census was taken in 1947, and is now essentially outdated; a great population increase has occurred, affecting all groups and for all three British Borneo territories.

Niah Caves

Work at the Niah Caves continued throughout 1960 with a main 'digging season' during March-May and resuming again in December. The year's work was partly concentrated on the deeper layers, below the strata previously carbon-dated at 40,000 years old. Both pollen and soil samples (Sutten 1960) were taken in order to assist dating and other problems in these deep deposits beyond the reach of C-14 dating. Pollen grains and charcoal fragments were found in most of the samples between 100 and 170 in. (letter from Sarawak Shell Oilfields Ltd., 3.6.1960)—and that is the deepest depth reached. Work at that depth is extremely slow. Only skilled and experienced labour is able to extract the very friable bone remains scattered in the deposit. A substantial collection of rough flakes of 'Mid-Sohan' type were obtained. Individual bone fragments have been identified by outside experts. These were in particular:

- i. bones attributable to *Mania palæojavanica* Dubois—an extinct giant pangolin formerly known only from Middle Pleistocene deposits (with *Pithecanthropus*) in Java (identified by Dr D. A. Hooijer, Natural History Museum, Leiden);
- ii. an intact human skull (already reported), now analysed by Mr Don Brothwell of the Duckworth Laboratory of Cambridge University with the help of Dr Kenneth Oakley, British Museum (Natural History);
- iii. a variety of bones of a mammalian fauna of extant species, for instance pig (*Sus barbatus*), Orang-utan (*Pongo pygmæus*), monkey (*Presbytis* spec. ident.), small carnivores, a large bovine (*Bubalus* c.q. *Bibos* spec.), the larger mouse-deer (*Tragulus napu*), a number of rats, a shrew (*Crocidura* spec.), and several bats, as well as the common recent Malaysian pangolin (*Manis javanica*). This proves coexistence of the two species of *Manis* in the upper Pleistocene of Borneo (T. Harrison, D. A. Hooijer and Lord Medway; letter to *Nature*, in press).

The bone material from higher—that is more recent layers—which is very extensive, continues to be studied by Lord Medway (University of Birmingham), with special groups checked by the Earl of Cranbrook (Linnean Society), Dr Edwards Hill (British Museum), Dr D. A. Hooijer (Natural History Museum, Leiden), and others. Of particular interest are new identifications of both the Tiger and the Tapir not previously proved to have existed in this island. A remarkably small domestic dog unlike any now found in Borneo, has also been proved from the upper deposit at Niah—as well as from Gua Sirih near Kuching, 300 miles away—and described by Dr Clutton Brock (Institute of Archæology, London) as dissimilar from the Neolithic dog in Japan.

The numerous stone-age food remains of fish, reptiles and frogs are now being tackled for the first time by Dr R. Inger and his colleagues at the Chicago Natural History Museum. In order to make the identifications of the prehistoric material possible, and also to illuminate problems of Pleistocene faunal and topographic change in the Niah area, a five-year programme of collecting living members of these groups in the area is being conducted with the aid of generous grants from Chicago.

For the first time, also, the Molluscan shell-food remains in the caves have been satisfactorily classified and statistically analysed down to 100 in. by Mr E. R.

Alfred (of the Raffles Museum in Singapore), working with Lord Medway. Significant also is the find of extensive fossilized oyster-beds underlying the human deposit. Specimens are now being studied through the good offices of Dr F. H. Fitch, Director of the British Borneo Geological Survey, as it is believed these may prove very helpful in determining early Pleistocene sea-levels around the limestone massif of the cave zone (T. Harrison 1960).

It would be improper to conclude any discussion of this section of the Niah work without mourning the loss of Prof. Hl. de Vries of Groningen University, who died under tragic circumstances early in the year. His Physics Laboratory, a pioneer of the C-14 method, has contributed greatly to the Niah datings.

Later Phases at Niah

Through the continued support of the Calouste Gulbenkian Foundation of Lisbon, work has continued also on the late stone-age and early metal-age materials which are so rich in special, and often particularly inaccessible caves and grottos of the Niah formation. The programme of copying and studying the cave paintings has been completed and the material is now available in the Museum in Kuching. However, extensive new paintings have now been discovered and will require another large-scale operation in 1961.

Meanwhile, work on the Painted Cave floor and other late sites continues. Well over 100,000 significant artifacts now require further analysis in this section of study.

Gua Sirih

Work has continued in this cave near Kuching on a small scale in 1960, largely because we are hoping to receive guidance from the carbon-datings still in hand with the University of Michigan. The stone tools from Sirih are in several respects peculiar and unrelated to Niah and in other ways direct comparison is not yet secure.

Extensive cave paintings have now been identified in this area also and will shortly be recorded in detail. On first analysis they appear to bear no resemblance to the Niah material either in technique or subject matter.

Sematan Bauxite Mine

A massive quartz chopper was unearthed about 3 ft. down during bauxite mining operations in Sematan in south-west Sarawak and passed to the Sarawak Museum. No vein quartz is known in the area and the Curator obtained confirmation from Dr Kenneth Oakley of the identification of this as an artifact (weight nearly 1 kg.), quite probably of 'early stone-age'. The original is now in the Sarawak Museum and an exact cast in the British Museum, Natural History. No tool of this particular type has yet been found at Niah.

Subsequently, in the same area, Dr E. B. Wolfenden of the Geological Survey Dept., found another possibly early stone tool which is now subject of study. A specific excavation in this rather difficult area is planned for mid-1961.

NORTH BORNEO

At the request of the North Borneo Government, the Curator of the Sarawak Museum, working in conjunction with Dr P. Collenette, Geologist in North Borneo, made the first excavations in that territory.

A small limestone islet (Pulau Eno) off Labuan Island, in process of demolition to supply fill for the new Labuan airport, produced in a tiny cliff-cave characteristic Niah 'Three-colour ware' pottery, a late neolithic adze and a very fine stone quern. This is a considerable extension northwards of the Niah pottery, and 20 miles off-shore.

On an adjacent islet, Pulau Burong, during the same operation, there were indications of a metal-age burial ground with imported Chinese ceramics. This is not surprising in view of the T'ang-Sung-Ming site across Brunei Bay, at Kota Batu, which was excavated by the Sarawak Museum (see reports in earlier issues of the *Sarawak Museum Journal*).

What may be important in this case is the preservation, in excellent condition, of several skeletons which appear to have been saved by the action of the sea-spray whipping across this low-lying island. Hitherto not one trace of human remains has been obtained from any of the non-cave sites so far excavated in Borneo.

Some cave material found by an agricultural officer in the headwaters of the Padas River near the border with Kalimantan was sent to the Sarawak Museum. Unfortunately, this was obtained in such a way that stratification and other information is lacking. What appear to be three late mesolithic stone tools and some unpainted neolithic pottery were included indicating—as might be expected—that Borneo's rich stone-age culture continues north and eastwards from Sarawak into the interior as well as along the coast.

BIBLIOGRAPHY

Books and Articles

ARENETA, F. and BERNARD, M.

n.d. Bisayan and Visayan Linguistic Comparison, *SMJ*, 9(15). (in the press)

BROTHWELL, D. R.

n.d. Upper Pleistocene Human Skull from the Niah Caves, Sarawak, *SMJ*, 9(15), 323-344. (in the press)

CARROLL, J.

n.d. Bisayan-Visayan Comparisons, *SMJ*, 9(15). (in the press)

CLUTTON BROCK, J.

1960 Niah's Neolithic Dog, *SMJ*, 9(13-14). 143-145. (1959)

GAUN ANAK SURENG

n.d. Orang Stories, *SMJ*, 9(15). (in the press)

GEDDES, W. R.

1954 *The Land Dayaks*. Colonial Office, H. M. Stationery Office.

1957 *Nine Dayak Nights*. Melbourne, Oxford University Press.

GEORGIE, EDWARD

1960 A Dayak (Love) Song, *SMJ*, 9(13-14), 21-24. (1959)

GOODWIN, J. F.

- 1960 Birds Nesters' Cave Dwellings, *SMJ*, 9(13-14), 179-185. (1959)

HARRISSON, BARBARA

- 1960a 'Cave of Bones'—New Finds, 1959, *SMJ*, 9(13-14), 164-178. (1959)
 1960b Die Niah-Höhlen in Borneo, *Die Umschau*, 21, 653-656.
 n.d. A Study of Orang-utan Behaviour in Semi-wild State, *SMJ*, 9(15). (in the press)

HARRISSON, TOM

- 1959a Innermost Borneo: Ten Years' Exploration and Research, *The Geographical Journal*, 125(3-4), 299-311.
 1959b Some Tasks of Research in Borneo, *Bulletin of the International Committee on Urgent Anthropological and Ethnological Research*, 2, 76.
 1960a More 'Megaliths' from Inner Borneo, *SMJ*, 9(13-14), 14-20. (1959)
 1960b Radio Carbon—C-14 Datings, *SMJ*, 9(13-14), 136-138. (1959)
 1960c The Piltdown Forgery—I, *SMJ*, 9(13-14), 147-150. (1959)
 n.d. Niah Oyster Shell, *SMJ*, 9(15) 390. (in the press)

HARRISSON, TOM (ed.)

- 1959 *The Peoples of Sarawak*. Kuching, Government Printer (distributed by Sarawak Museum).

HARRISSON, TOM and A. K. MARICAN SALLEH

- 1960 Sarawak Malay Fishing Cycles, *SMJ*, 9(13), 63-73. (1959)
 n.d. a Sarawak Malay Fishing Cycles—II, *SMJ*, 9(15). (in the press)
 n.d. b Gathering Illipe Nuts, *SMJ*, 9(15). (in the press)

HOOIJER, D. A.

- n.d. a The Giant Extinct Pangolin from Niah, *SMJ*, 9(15), 345-350. (in the press)
 n.d. b The Orang-utan in Niah Caves, *SMJ*, 9(15). (in the press)

HUEHNE, W. H.

- 1960 A Doctor among 'Nomadie' Punans, *SMJ*, 9(13-14), 195-202. (1959)

JAMUH, GEORGE

- 1960 Melanau Healing, *SMJ*, 9(13-14), 186-194. (1959)
 n.d. West Bornean Poison, *SMJ*, 9(15). (in the press)

JEE CHIN LUKE

- 1960 Establishing Geographical Position and Cave Height at Niah, *SMJ*, 9(13-14), 134-135. (1959)

LAW, C. P.

- 1960 Chinese Temples in Kuching—II, *SMJ*, 9(13-14), 47-48. (1959)

LEES, S. P.

- 1960 Lun Daye Phonemics, *SMJ*, 9(13-14), 56-62. (1959)

LEES, W. C.

- 1960 Phonetics, Phonemics and Alphabets, *SMJ*, 9(13-14), 53-55. (1959)

MEDWAY, LORD

- 1960a Palæolithic Attrition of Human Teeth (Niah), *SMJ*, 9(13-14), 139-142. (1959)
 1960b The Tapir at Niah, *SMJ*, 9(13-14), 146. (1959)
 1960c Niah Animal Bone—II, *SMJ*, 9(13-14), 151-163. (1959)
 n.d. a The Tapir in Quaternary Borneo, *SMJ*, 9(15). (in the press)
 n.d. b Niah Animal Bone—III, *SMJ*, 9(15), 371-373. (in the press)
 n.d. c Niah Animal Bone—IV (Shrew), *SMJ*, 9(15). (in the press)
 n.d. d Niah Shell, *SMJ*, 9(15). (in the press)

NELSON, P. R.

- 1960 The Great Cave of Niah, *Chicago Natural History Museum Bulletin*, 34(9), 4-5 and 7.

NYANDOH, R.

1960 Linggat and the Magical Faeces, *SMJ*, 9(13-14), 49-52. (1959)

n.d. Manjuh, the Magic Stone of Niah, *SMJ*, 9(15), 401. (in the press)

PERANIO, R.

1960 Animal Teeth and Oath-taking among the Bisaya, *SMJ*, 9(13-14), 6-13. (1959)

RAINEY, F.

1960 The Changing Face of Archæology, *Expedition*, 2(3), 14-20. University of Pennsylvania Museum.

SANDIN, B.

1960 Cock-Fighting: the Dayak National Game, *SMJ*, 9(13-14), 25-32. (1959)

SOLHEIM, WILHELM G., II

1960 Two Major Problems in Bornean (and Asian) Ethnology and Archæology, *SMJ*, 9(13-14), 1-5. (1959)

SUTTON, C. D.

n.d. Some Chemical Analysis Data from Niah Caves, *SMJ*, 9(15), 393. (in the press)

URQUHART, I. A. N.

1960 Some Baram Kinship Terms, *SMJ*, 9(13-14), 33-46. (1959)

WHITE, E.

1960 Dusun Bamboo Fertility Rites, *SMJ*, 9(13-14), 118-120. (1959)

WOOKEY, W. K. C.

1960 The Kokok Monster, *SMJ*, 9(13-14), 112-117. (1959)

Philippines

ALFREDO E. EVANGELISTA

Received 30 December 1960

FIELD WORK AND RESEARCH

This is a brief résumé of archæological activities in 1960. Since the end of the middle of the 1950's, the Division of Anthropology of the National Museum has been carrying the brunt of archæological field research, supported to a large extent by the increasing public interest in the cultural history of their country. No less important are the activities carried out by other individuals and institutions.

In the early part of the year, a National Museum archæological field team, lead by Dr Robert B. Fox and Mr Manuel Santiago, began excavations at two sites near Porac, Pampanga Province, through the generous financial support from Don Andres Soriano and Sons, well-known local industrialists and businessmen.

A pre-excavation reconnaissance of the areas containing potsherds showed extensive disturbance, a plantation under cultivation had been using heavy tractors and mechanical plows and cultivators; and pre-war collectors had also been active. Beyer (1947) refers to this area as the 'Hacienda Ramona Site' or 'Godall Site', having been explored by G. M. Godall, E. D. Hester and others in 1935-1936. A number of Hacienda Ramona pieces were donated by Mr Hester to the Chicago Natural History Museum.

Quite extensive explorations for purposes of collection were carried out according to Beyer, but were 'far from scientifically conducted', and hence systematic excavations were recommended to 'settle some important points concerning the history of the site that are still vague or definitely doubtful'.

These early explorations and collections none the less enabled Beyer to distinguish at least three periods of habitation, ranging from Late T'ang to the Ming period. His interest was also attracted by the following observations: *a.* large quantities of Yuchow and other Southern Sung wares; *b.* a few examples of rare spotted celadon (*tobi-seiji*) associated with *yin-ch'ing* fragments; *c.* only two fragments of blue-and-white ware which may be Yüan rather than Early Ming; *d.* the absence of any Southeast-Asian ware; *e.* several uniquely fluted small teapots and wine pots rather unusual in Philippine sites; and *f.* three types of burial jars in one site.

Gubat and Balukbuk. Fox (1960a) reported indications of extensive habitation and burial in two places within the plantation, hence the name 'Hacienda Ramona Site' was dropped in favour of more localized names, Gubat and Balukbuk. The presence of crops greatly hampered the choice of locations for trenches, nevertheless excavations were begun at Balukbuk with labourers divided between working in areas showing habitation and suspected burial.

Fox describes the habitation area at Balukbuk as 'massive', the midden area reaching a depth of 2 m. and included artifactual and non-artifactual materials—hundreds of broken pottery sherds of both locally made earthenware and imported porcelain and stoneware, broken metal tools, animal bones and teeth, and so forth. He observed definite stratification, the lowest layers containing no porcelain, then Sung and Yüan pieces, and finally blue-and-white sherds of the Early Ming dynasty—the latter forming the uppermost strata. Trenches of 1 m. square in size were dug over a sizable area. The midden recoveries indicate that a large pre-Spanish community inhabited the high points at Balukbuk which overlook the valley.

In the burial area a jar probably Late T'ang or Early Sung was discovered, the mouth covered by an inverted monochrome plate. The jar, when carefully cleaned at the Museum laboratory, contained the skeletal remains of an infant, two metal bracelets, a gold(?) finger-ring, beads and what appear to be actual fragments (or impressions) of clothing material. The weaving technique shows clearly under a low-power microscope.

The team suspended excavation work in February and came to Manila to help put on an exhibition at the Museum, the 'National Exhibition of Filipino Indigenous Cultures'. On their return to Porac, they undertook extensive test-trenching at the Gubat Site. Both meter-square and long trenches were opened in an attempt to define the habitation area as well as the pattern of habitation and their relative ages, and to discover the burial areas. The resulting accumulation of cultural materials suggested that Gubat supported a large population, covering the period from late 11th to the late 14th century. As Fox (1960*b*) says, thousands of T'ang, Sung and Yüan sherds have been recovered and only one fragment of blue-and-white later identified as pre-Ming. Fox advances a theory that water could have been the major reason for such a concentration of people here, since the finest spring in the entire area is only a few hundred yards from the site.

Burial jars were found finally through extensive trenching, though different in type from those reported by Beyer (1947) and from those found at Balukbuk. Eight large earthenware jars have been found (some having a distinctive flange near the rim) which also have another jar as a cover. Only four of the jars had contents which include one jarlet, beads, metal finger-rings, and a minute gold object.

Smaller earthenware vessels (some also possessing covers) have been found near the larger jars. Eight isolated jarlets of T'ang or Sung date have also been recovered. The aggregate of 23 earthenwares form a type series, and although without decoration, represent some unusual forms. In addition to metal tools, stone objects having utilitarian functions were also recovered.

Gubat and Balukbuk have other differences. The former has no intrusive (trade pottery) wares used as burial jars. Besides, the finds would indicate that Gubat is the older site and abandoned in the late 14th century. At Balukbuk, on the other hand, many early 15th century blue-and-white sherds were encountered and trade stone-wares were used for interment. There are no differences in the local earthenware.

Calatagan. The same National Museum team moved over to Calatagan, Batangas Province in late spring to continue the digging operations there. To date a total of 21 sites have been discovered and there is reason to believe that there are others

awaiting discovery. A survey of the unexcavated sites revealed assemblages identical with those previously excavated from the sites of *Kay Tomas*, *Pulung Bakaw*, and *Pinagpatayan* (*AP*, 3, 47-48).

Work this year has been carried out in the sites henceforth to be known as *Santa Ana*, *Palatpat*, *Kay Bungo*, *Palo Bandera*, *Bukalan*, *Balong Bato*, *Punta Sulog*, *Kilitisan*, *Pasong Bato*, *Karitunan*, and *Talisay*. The diggings greatly added to the previous collections, but more important is that new insights were gained into the life of the early inhabitants of Calatagan. For example, their dried-up source of fresh water has been discovered. More evidence of infant jar burial also came to light. One jar, a 14th century Siamese (Kalong) stoneware, contained infant bones still intact. Part of the jar's lip and shoulder was broken off to facilitate arrangement of the bones inside. Then, a cast-iron implement was also found. It retains the impressions of a *Pandanus* which suggests that the dead at Calatagan were wrapped in mats. Hundreds of graves have to date been opened but no coffin material has so far been collected. The onset of the rainy season in June made further diggings impractical.

On December 12, Dr Robert B. Fox, Mr Inocentes Paniza and Mr Manuel Santiago of the National Museum left for Batanagas. They were joined a week later by the writer. With the ending of the rainy season, they plan to continue excavations in the new sites of Calatagan, using an army jeep and driver generously loaned by the Philippine Atomic Energy Commission headed by Col. Florencio Medina. Moreover, the Asia Foundation generously provided the National Museum team with funds to purchase equipment badly needed for survey, photography and digging.

EXHIBITIONS AND LECTURES

In July 1960, the Anthropology Division participated in the National Science Week activities by putting up a photographic exhibition, the theme of which was 'We, the Filipino', featuring the different cultural-linguistic groups, the family, government-directed culture change, and so forth. Funds were provided by the National Science Development Board.

In August 1960, the Asia Foundation offered a year's financial support for the cataloguing, classification and organization of the archæological collections of Prof. H. Otley Beyer. Thus the 'Asia Foundation-Beyer Project' was set up under the co-sponsorship of the Universities of the Philippines and Chicago under the supervision of Prof. Fred Eggan, Director, and Mr E. D. Hester, Associate Director, respectively of the Philippine Studies Programme. The Programme itself is a co-operative activity of the Department of Anthropology of the University of Chicago, the Newberry Library (Ayer Collection) and the Chicago Natural History Museum. Work began at Manila on November 1st.

The culture history of the Philippines was the subject of an illustrated lecture to parents and teachers of the American School at Pasay City, Rizal by Dr Robert B. Fox. Likewise, Mr Tom Harrison, curator of the Sarawak Museum, made a stop-over in Manila from Tokyo where he attended the Asia and Pacific Area Museum Seminar (September 4-30, 1960.) In Manila, he reviewed archæological collections, particularly beads from Calatagan and T'ang wares of the National Museum and

the University of the Philippines Museum and Institute of Archæology and Ethnology. Later he delivered a talk at the Philippine Women's University concerning the functions and activities of the Sarawak Museum. This was concluded by a coloured movie of the archæological excavations at the famous cave of Niah. The same film was afterwards shown elsewhere after a lecture also by Mr Harrison ('Two Thousand Years of Culture Contacts between Borneo and the Philippines'), sponsored by the British Embassy.

Manila was the host to local and foreign historians during the International Conference of Asian Historians under the auspices of The Philippine Historical Association. The over-all theme was 'Focus on Asia'. Some of the several interesting papers read during the meetings of the International Conference of Asian Historians held in Manila from November 25-30, 1960, were:

BEYER, H. OTLEY, A Résumé of Philippine Archæological Excavations in Relation to Southeast-Asian Countries.

SHIH, CHANG-JU, The Marine Elements in the Yin Culture.

FOX, ROBERT B., Trade Potteries as a Key to Philippine Relations with Neighbouring Countries during the Pre-Spanish Period.

LYNCH, FRANK X., Continuities in Philippine Social Class.

MACEDA, JOSÉ, The Setting of Magindanao Music.

MANUEL, E. ARSENIO, Ethnostratic Method for Dating Cultural Items with Illustrative Material from the Folklore of Southeast Asia.

TUN, THAN, Agriculture in Burma, A.D. 1000 to 1300.

BIBLIOGRAPHY

Books and Articles

BEYER, H. OTLEY

- 1947 Outline review of Philippine archæology by islands and provinces, *PJS*, 77(3-4), 205-374.

EVANGELISTA, ALFREDO E.

- 1960 Ancient burial customs among Filipinos, *Saturday Parade*, Magazine of the *Evening News*, 1(16), 9-10, Manila, October 29.

MANUEL, ARSENIO E.

- 1958 Tayabas Tagalog Awit fragments from Quezon Province, *Folklore Studies*, 17, 55-97.

SOLHEIM, WILHELM G., II

- 1960a Notes on burial customs in and near Sagada Mountain Province, *PJS*, 88, 123-134. (1959).

- 1960b Two tribes of hunters and food-gatherers on the island of Luzon, *Bulletin of the International Committee on Urgent Anthropological and Ethnological Research*, 3, 75.

- 1961 Further notes on the Kalanay Pottery Complex in the Philippines, *AP*, 3(2).

- n.d. a Burial in jars in the Babuyan and Batanes Islands and in the Central Philippines, and its relationship to jar burial elsewhere in the Far East, *PJS*, 89(1), (March 1960), (in the press).

Manuscripts

FOX, ROBERT B.

- 1960a Report on the first month of excavations at Porac, Pampanga. Field report submitted to Soriano y Cia., Manila.

- 1960b Report on the second month of excavations at Porac, Pampanga. Field report submitted to Soriano y Cia., Manila.

Formosa

KWANG-CHIH CHANG

Received 18 November 1960

FIELD WORK AND RESEARCH

During the past two years (1958-59), archæologists have not been very active in field work. What has been done was mostly undertaken by the faculty and students of the Department of Archæology and Anthropology, National Taiwan University (Taipei), and the staff of the Provincial and County Commissions of Historical Research. The data collected on the Eastern Coast, in the vicinity of Hwa-lien by Professor Sung Wen-hsun and Messrs. Yang Chun-shih and Chiao Chien, are particularly worth mentioning. Here they investigated in 1958 a series of megalithic relics; their findings, such as the amphora-type pottery and rectangular stone knives, show both the distinctiveness of the eastern coast in prehistoric times and its connections with the west coast where the prehistoric picture is relatively well-known. Among the Ami groups living in this same area, some surviving cultural traits have been observed, such as the manufacture of ceramics and the stone-boiling method, that are illuminative with reference to the connections between prehistory and ethnography.

Another centre of prehistoric research is the Institute of Ethnology, Academia Sinica (Nankang, Taipei), founded in 1955. Professor Ling Shun-sheng, Director of the Institute, who received his doctorate at Sorbonne under Professors Marcel Mauss and Paul Rivet, has been engaging in a number of research projects on the cultural connections between ancient China and the Pacific, using field and laboratory data collected among the present-day aborigines on this island as pivot points. The *Bulletin*, published by the Institute, has now reached its tenth volume and has aroused world-wide interest. Under Ling, a group of energetic young scholars, spend a good part of each year in the field to collect ethnological data for ethnohistoric as well as ethnographic purposes. They also do some archæological reconnaissance when the occasion demands. One of them, Mr Jen Hsien-min, informed the Editor that the Institute's archæological interests are at present concentrated on the eastern coast where he estimates over one hundred megalithic sites remain unexplored. These megalithic monuments may or may not have been constructed by the ancestors of the Ami who inhabit this region at the present. Several sites in the south and in the east where chipped stone implements have been collected and which according to legendary accounts of the natives were inhabited by Negritos, are also scheduled for excavation in the near future under the Institute's auspices, according to Mr Jen.

The Japanese old-timers, such as Kanazeki Takeo, Kokubu Naoichi, and Miyamoto Nobuto, who worked on Formosa prior to the War, continue to publish reports on their former excavations. Of particular interest is a report of Kanazeki and Kokubu

(1957b) on an excavation at a megalithic site on the eastern coast, near Taitung, which shows unmistakable affinities with the modern Ami group of the same area.

BIBLIOGRAPHY

Books and Articles

CHANG, KWANG-CHIH

- 1958 On the shell-bead money complex in Formosa, the Pacific, and the New World. *Bulletin of the Ethnological Society of China*, 2, 53-133. (In Chinese, with an English summary).

Describes a collection of shell-bead money from the aborigines, examines its technological and social aspects, and compares it with similar complexes in Melanesia, Micronesia, and North America.

- 1959 A working hypothesis for the early cultural history of South China. *BIEAS*, 7, 75-103. (In English).

Assembles available materials on the prehistory of South China, constructs a tentative chronological framework, formulates major cultural traditions, and speculates upon the bearings of these data on the problems of Oceanic archaeology.

CHEN, CHI-LU

- 1958 A cultural configuration of the Island of Formosa. *Bulletin of the Ethnological Society of China*, 2, 1-10. (In English).

Presents a general stratigraphic model of the prehistoric and historic cultures of the island and characterizes each stratum.

KANAZEKI, TAKEO and NAOICHI KOKUBU

- 1957a Prehistoric sites in Hsiao-liu-chiu Island. *The Journal of the Shimonoseki College of Fisheries (Civic Science)*, 2, 35-41. (In Japanese, with an English summary).

Describes three sites investigated by the authors in May 1948, on an islet, Hsiao-liu-ch'iu, 15 km. west of Kao-hsiung hsien: a cave, a habitation site, and a cemetery which has stone cists resembling the K'en-ting finds in Ping-tung hsien on the main island.

- 1957b Researches on a prehistoric site near Peinan, Formosa. *The Journal of the Shimonoseki College of Fisheries (Civic Science)*, 3, 47-65. (In Japanese, with an English summary).

Describes a village site with megalithic structures, near Peinan on the eastern coast, dug by the authors in 1945, and speculates on its subsistence patterns and historic connections with both prehistoric and modern aboriginal cultures.

KOKUBU, NAOICHI

- 1957 Stone implements and ethnological objects found in Botel-Tobago Island, 1947. *The Journal of the Shimonoseki College of Fisheries (Civic Science)*, 2, 35-41. (In Japanese, with an English summary).

Describes some stone implements (which were made and used by the islanders until recently) collected in 1947 on the islet by the author.

- 1959 Stone knives of prehistoric Formosa—On the Japanese 'Ishibôchyô', stone sickle, and stone knife with a handle. *The Japanese Journal of Ethnology*, 23(4), 1-38. (In Japanese, with an English summary).

Classifies extensively the prehistoric stone knives from all over the island and calls attention to their similarities to the stone knives of the Lung-shan culture on the coastal Chinese mainland.

MIYAMOTO, NOBUTO

- 1957 Various aspects of the relationship between the stone age remains and the modern aborigines on the Island of Formosa. *Shigaku*, 29(4), 65-77. (In Japanese).

SUNG, WEN-HSÜN

- 1958 The use of hollowed pebble. *The Japanese Journal of Ethnology*, 22(1-2), 120-122. (In Japanese with an English summary).

Suggests that some hollowed pebbles found in many prehistoric sites on this island were used for cracking mollusk shell to extract the meat.

TANG, MEI-CHÜN

- 1958 Crossbows of Formosan aborigines and the origin of the crossbow. *Bulletin of the Department of Archaeology and Anthropology, National Taiwan University*, 11, 5-34. (In Chinese, with an English summary).

Describes a collection of aboriginal crossbows and speculates upon the origin of the crossbow in South China as the result of a blending of the bow and the blowgun.

Oceania

W. G. S.

The news concerning Oceania as a whole comes primarily from the *Information Bulletin* of the Pacific Science Association, 12(4-6), 1960. Besides this I would like to call attention to the remarks on the increasing academic interest in Oceanian prehistory found in 'Eastern Asia and Oceania' in this issue (p. 1), and the postscript to the Melanesian Section noting the first archæological expedition in New Guinea.

BOTANICAL NEWS

Professor Dr C. G. G. J. van Steenis of the Standing Committee on Pacific Botany (Pacific Science Association) has announced that the sub-committee on Pacific Plant Areas, of which he is chairman, hopes to have ready the first volume on Pacific plant areas for the 10th Pacific Science Congress. This volume which will explain the purposes of the project and contain 26 newly prepared maps with legends is to appear as a special publication of the *Philippine Journal of Science*. This series will be of obvious interest to those interested in Pacific migrations (*IB*, 4, 3).

Dr Mona Lisa Steiner, chairman of the sub-committee on Vernacular Names of Pacific Plants (of the Standing Committee on Pacific Botany) has presented an interesting progress report on the committee's work. A bound mimeographed publication under the title *Preliminary Compilation of Vernacular Names of Economic Plants in the Pacific* has appeared; 600 copies have been distributed to the committee, various institutions and members of the 9th Pacific Science Congress. 'In early 1961 all the scientific names and synonyms will be brought up-to-date according to studied references. All the accumulated vernacular names will be compiled, checked and placed into the manuscript. This compilation, after a thorough checking, will be finalized and mimeographed, possibly again in book form, to be distributed during the Tenth Pacific Science Congress in Hawaii. This compilation will serve as the last checkup before printing of the first part—food plants.' (*IB*, 6, 9-10).

The publication of a *Geological Survey Palæontological Bulletin* by the New Zealand Geological Survey will give the results of recent fossil pollen study in New Zealand. The pollen studied came from marine sedimentary rocks from known marine strata which have been dated by the marine fossils they contain. Thus the pollen is accurately dated. The *Bulletin* will describe 139 species of fossil pollen and spores; many of these species date from Pleistocene times, thus giving information on fluctuations in the Pleistocene climate in the southern hemisphere. The information in *IB*, 5(9-10) was taken from the *Report* of the Department of Scientific and Industrial Research for the year ended 31 March 1960, Government Printer, Wellington, New Zealand.

TYPHOON-DEVASTATED ATOLLS

'Typhoon *Ophelia* struck Jaluit atoll in the Marshall Islands in January 1958. In the following April, a survey team visited the atoll; and the resulting study of its work is the forerunner of further investigations in coming years on the atoll's rehabilitation, to discover how Pacific islands were vegetated and made habitable.

'The initial survey revealed that the typhoon had created rubble bars and laid thick sheets of coral gravel across large sections of the eastern islets. One of the most conspicuous changes noted in the November survey is the moving of the rubble bars landward, in several places joining the main body of land. Gravel sheets still spread across the islets but are being invaded by vegetation. Superficially the aspect of the vegetation has changed strikingly since the 1958 survey. Most areas that were barren expanse of coral rock are now green and have a luxuriant, though low, herbaceous scrubby vegetation.

' . . . A typhoon . . . struck Ulithi atoll in the Caroline Islands on November 30, 1960, causing extensive damage and major changes in the islets. . . . Efforts are being made to arrange for a survey of Ulithi early in 1961, and it is hoped that one member of the team will be Dr W. A. Lesser of the Department of Anthropology and Sociology, University of California, Los Angeles, who has worked extensively on Ulithi.' (*IB*, 6, 7)

EDWARD W. GIFFORD AND PACIFIC ANTHROPOLOGY

In *AP*, 3(1), 1959, in my obituary notice of Professor Gifford, I promised to give an appraisal of his great contribution to Pacific anthropology, and a bibliography of his researches in this area.

Although Gifford made only four trips to the Pacific during his life, it was and remained his first love. His anthropological work in the Pacific began in Polynesia, when during 1920-21 he was in charge of the Bayard Dominick Expedition to Tonga. Associated with him on this project was W. C. McKern. Here Gifford was largely concerned with ethnological studies. This expedition produced several important publications such as 'Tongan Place Names', 'Tongan Myths and Tales', and 'Tongan Society'; all are classic works, well documented, and the first deep analysis of a Polynesian society. They are basic to any Polynesian studies in ethnography and cultural anthropology.

For some 25 years Gifford was unable to return to the Pacific. Feeling that scientific archæology was long overdue in Melanesia, he began his archæological research in the Pacific on Viti Levu, the largest island of the Fijian Archipelago, with five months of extensive survey and excavation in 1947. This work produced the first radiocarbon dates from the area. Some half-dozen dates range in time from 46 B.C. to A.D. 1305 at Sites 17 and 26, the two sites at which he conducted excavations. His Viti Levu work was published in 'Archæological Excavations in Fiji', and several lesser papers.

Gifford's next attack on Melanesian archæology was on New Caledonia in 1952; the writer and his wife accompanied him on this trip. Occupation of New Caledonia appears to have begun earlier than was the case in Fiji. Site 13 on New Caledonia,

with a very distinctive, elaborately decorated pottery, produced a radiocarbon date of 846 B.C. The latest radiocarbon date was A.D. 1568. The New Caledonian expedition led to the publication of a number of papers, the main one being 'Archæological Excavations in New Caledonia'.

In 1956, the Giffords made their last trip to the Pacific, spending four months on Yap. They carried out an archæological survey and excavated in five sites. 'Archæological Excavations in Yap', (with his wife) appeared after his death. Radiocarbon dates from the Yap sites range from A.D. 176 to A.D. 1756.

Beginning with his work on Tonga in 1920, which produced a classic study on Tongan Society, Gifford moved on to archæological excavations in Melanesia and Micronesia for his succeeding expeditions to the Pacific. Archæological excavations on Viti Levu and New Caledonia demonstrated the lack of a pre-pottery culture. Our present state of knowledge of Melanesian prehistory, based on this work, indicates a Neolithic Stage Culture for the first comers to these islands. The radiocarbon date of 846 B.C. at Site 13 on New Caledonia is significant as it puts people in eastern Melanesia earlier than was previously supposed. The excavations and radiocarbon dates from Yap provide a sound basis on which to build cultural and chronological interpretations in western Micronesia.

Gifford's work in three cultural areas of the Pacific is fundamental to anyone undertaking anthropological research in this region. His sound approach, his untiring industry and attention to detail, leaves a lasting heritage for workers who follow him in this area.

Richard Shutler, Jr.

E. W. Gifford: Pacific Bibliography

GIFFORD, EDWARD W.

- 1923 Tongan Place Names, *Bernice P. Bishop Museum Bulletin*, **6**.
- 1924a Tongan Myths and Tales, *Bernice P. Bishop Museum Bulletin*, **8**.
- 1924b Euro-American Acculturation in Tonga, *JPS*, **33**(4).
- 1929 Tongan Society, *Bernice P. Bishop Museum Bulletin*, **61**, Baynard Dominick Expedition, Publication **16**.
- 1951a Archæological Excavations in Fiji, *AR*, **13**(3).
- 1951b Fijian Mythology, Legends, and Archæology, *University of California Publications Sem. Philol.*, **11**.
- 1951c Anthropological Problems in Fiji, *JPS*, **60**, 122-129.
- 1951d A Program for Micronesian Archæology, *AA*, **53**, 594-597 (with K. P. Emory, Gordon MacGregor, Douglas Osborne, and Alexander Spoehr).
- 1952a Tribes of Viti Levu and Their Origin Places, *AR*, **13**, 5.
- 1952b A Carbon-14 Date from Fiji, *JPS*, **61**, 327.
- 1953a (With Dick Shutler, Jr.) Expédition Archéologique de l'Université de Californie en Nouvelle-Calédonie, *Études Mélanésiennes*, n.s. **5**(7).
- 1953b L'Archéologie Néo-Calédonienne en 1952, *JSO*, **9**.
- 1954 Anthropology in Oceania, *Transactions and Proceedings of the Fiji Society of Science and Industry*, **3**, (1945-1947).
- 1955 Six Fijian Radiocarbon Dates, *JPS*, **64**, 240.
- 1956 (With Dick Shutler, Jr.) Archæological Excavations in New Caledonia, *AR*, **18**, 1.
- 1959 (With D. S. Gifford) Archæological Excavations in Yap, *AR*, **18**, 2.

Micronesia

ALLAN H. SMITH

Received 20 June 1960

FIELD WORK AND RESEARCH

Information has been received from J. L. Fischer, Thomas Gladwin, Ward Goodenough, George W. Grace, Leonard Mason, Douglas Osborne, David M. Schneider, Melford Spiro, and W. A. Lessa. Their aid is gratefully acknowledged.

Ponape. 1. J. L. Fischer (Tulane Univ.) is preparing for publication a somewhat revised version of the paper 'The Abandonment of Nan Matol' which he presented at the Chicago A.A.A. meeting in 1957. The generally available data have been supplemented by new historical information from the files of the American Board of Commissioners for Foreign Missions. They reveal that 'the abandonment of the ruins was largely but not entirely complete on the arrival of Protestant missionaries on Ponape in 1852. In contrast to Hambruch's statement, the missionaries had little to do with the abandonment. On the other hand, local traditions suggest no great antiquity to the ruins.'

Ulithi. 1. A monograph titled 'Tales from Ulithi Atoll: A Comparative Study in Oceanic Folklore' by W. A. Lessa (Univ. of California, Los Angeles) is to appear this autumn as No. 13 in *University of California: Folklore Studies*. The nuclear data of the study were secured by the author on Ulithi in 1948-49, where he carried out anthropological research under sponsorship of the University of Chicago and the Pacific Science Board (National Research Council) as a part of the CIMA Project. These have been supplemented by extensive library research. It is concluded that the Ulithian tales and motifs 'are shared to a large degree throughout all culture areas of the Pacific with the exception of Australia, which has few affinities. While it has not been possible to work out routes of migration, certain tales seem closer to some areas than to others, and many of their motifs have connections with Southeast Asia. No Western (European) influence was detected.'

Guam. 1. A glottochronological study involving Chamorro is being undertaken by J. L. Fischer. Guamanian equivalents for the Swadesh basic vocabulary list have been secured for Fischer by Mrs Marjorie Grant Whiting. On the basis of the present analysis of the data, Fischer concludes that Spanish words in the Chamorro basic vocabulary indicate a much more rapid replacement than Swadesh has generally postulated. This raises a significant question about the rate of linguistic change and the full accuracy of the time-estimate schedule currently in use.

2. Douglas Osborne (National Part Service) and Erik Reed are collaborating on a primarily descriptive report covering the archæological findings which they individually made on Guam some years earlier.

Yap. 1. David M. Schneider (Univ. of California) is continuing his study of Yapese depopulation, employing field findings secured in 1947-48 under sponsorship of the Pacific Science Board (N.R.C.) and the Peabody Museum of Harvard. An attempt is being made to date the beginning of the depopulation trend and to arrive at a close figure for the island population at that period.

2. Trends in Yapese marital stability from about 1900 to 1948 are likewise being analyzed by Schneider, with the assistance of Prof. Martin Baumhoff (Univ. of California, Davis). The results suggest that marriage was unstable at the beginning of the period and that, at least up to 1948, it became progressively more so.

Palau. 1. Douglas Osborne reports the completion of his volume detailing his archaeological survey of the Palaus. It is currently being edited for publication by the Bishop Museum of Honolulu.

BIBLIOGRAPHY

Books and Articles

BURROWS, EDWIN GRANT

1958 Music on Ifaluk Atoll in the Caroline Islands, *Ethnomusicology*, 2(1), 9-22.

Through a comparison of the musical forms current on Ifaluk during the author's two periods of field work (1947-48; 1953) with those reported by the Hamburg South Seas Expedition in 1909, and also of those popular during the author's first visit with those of the second, it is concluded: 'Changeability must be noted as another prominent characteristic of local musical style'. This point comprises but a minor theme of the paper. Nevertheless, it raises the possibility that this situation may have been equally prevalent on the island and in the surrounding area at earlier time levels. If so, these findings have interesting implications for the Micronesia prehistorian.

CHANG, KWANG-CHIH

1959 A Working Hypothesis for the Early Cultural History of South China, *Bulletin of the Institute of Ethnology, Academia Sinica*, 7, 43-103. (In Chinese, with long English summary)

In this detailed re-study and re-evaluation of the Chinese Neolithic data, Chang reaches certain general conclusions of interest to Micronesian prehistory.

In brief, Chang finds that the South China Neolithic originated in the Yangshao and Lungshan cultures of the middle Yellow River valley when they spread southward in several waves and by several interior routes to the Yangtze valley and the Southeast Coast. As a result of their merging with the indigenous Mesolithic culture, of their adaptation to local environmental conditions, and of other changes, a local South China Neolithic assemblage, the 'Lungshanoid cultures', developed in the area before the 18th century B.C. These cultures were those of a linguistically 'undifferentiated Sino-Tibetan/Malayo-Polynesian' people. From this generic base there evolved in the Southeast Coast sector of the larger area a particular derivative culture with a maritime orientation and a proto-Malayo-Polynesian speech. Judged from the present archaeological evidence, this culture corresponded very closely to the proto-Malayo-Polynesian culture earlier hypothesized by Heine-Geldern, Linton, Ling, and others on the basis of comparative ethnographic, archaeological, and early historical evidence. A seaward expansion of this culture carried man, with a still largely undifferentiated Malayo-Polynesian speech, into Micronesia during the Yin Dynasty of China and subsequently further eastward, though the route followed by this more eastern movement is still uncertain. See lower down LING SHUN-SHENG.

DE CAMP, L. SPRAGUE

1957 Lost Cities, *Travel*, 108(5), 23-27, (December).

One section (pp. 24-26) of this popular article is devoted to a description, apparently wholly second-hand, of the ruins of Nan Matol on Ponape and a brief summary of its traditional history.

FORCE, ROLAND W.

1959 Palauan Money: Some Preliminary Comments on Material and Origins, *JPS*, 68(1), 40-44.

One form of native Palauan currency consists of prismatic crescents of a yellow, orange, or blue colour. End perforations permit suspension around the neck on special occasions. Laboratory analyses, initiated by Force, reveal that they are of translucent or opaque glass, not of stone or pottery as earlier investigators have variously surmised. They indicate also that they are clearly segments of bracelets of the type which has been found archaeologically in central and southern Philippine sites with 12th to 16th century Asiatic porcelains. The ultimate origin of these objects and the route and mode of their diffusion to the Palaus are still under study.

FOSBERG, F. RAYMOND

- 1960 The Vegetation of Micronesia: 1. General Descriptions, the Vegetation of the Marianas Islands, and a Detailed Consideration of the Vegetation of Guam, *AMNH Bulletin*, 119 (art. 1), 1-75, 40 plates.

Although the data are non-anthropological and the conclusions largely provisional, this report is of more than incidental importance to time-depth studies of Micronesian anthropology. It is devoted chiefly to plotting the present distribution of various floral assemblages throughout the area. But scattered through the report are tentative and cautious attempts to reconstruct the character of the original island vegetation, and to assess the very considerable floral changes which have ensued as a result of the first peopling of the area and the subsequent cultural practices of the Spanish, Japanese, and, most recently, Americans. While these attempts do not bulk large in terms of the total material presented, they are none the less highly suggestive to the prehistorian.

The author takes the rather incidental position that it 'is highly improbable that any of the extensive coconut forests in Micronesia . . . are "natural"', man seemingly has been the usual agent for the distribution of the plant (p. 26). Again in his view, the Micronesian islands were, before human occupancy, almost entirely forested. 'It seems most probable that man-made fire has been the principal agent of this destruction' (p. 32).

GIFFORD, E. W. and GIFFORD, D. S.

- 1959 Archaeological Excavations in Yap, *Anthropological Records*, 18(2), 149-224.

The field work, carried out through the first half of 1956, involved systematic excavations in five Yapese municipalities.

The human skeletal remains uncovered were fragmentary and insignificant in quantity. Although no evidence was discovered of the two native mammals (bats and flying foxes), bones of the pig and chicken—only the latter of precontact occurrence—were found. Far commoner than these were reptile bones, primarily turtle. These, in turn, were of less frequent occurrence than fish bones; apparently through the entire period represented by the excavation, the Yapese dependence on fish for food was very considerable. While decapod and echinoderm evidence was scanty, mollusk remains were very common and include 167 identified species. Nothing was discovered to suggest any change in food habits through the excavation period.

Two types of pottery were found: *a.* an unlaminated variety with a mineral and rock fragment temper, and *b.* a brown, laminated, poor quality ware without intentionally added tempering material. The former is the commoner in early horizons, extending back to the most ancient excavated, and the latter in later levels. Whether the latter represents a degenerate development from the former or an introduced type is not clear. No complete vessels having been uncovered, little could be deduced on the matter of pottery shapes. However, some vessels of the laminated type were evidently perforated for suspension. Incised ornamentation and red surface-painting are very uncommon; at least the former seems limited to the unlaminated ware. Shell tools include adzes of several classes (details are provided); straight knives and taro peelers (both apparently not very old tools on Yap); paring knives; scrapers; bracelets (evidently including some of considerable antiquity), rings, and disk beads; pestles; and trumpets. Bone artifacts were in effect lacking, and stone artifacts exceedingly rare. Nothing to indicate the age of Yapese stone money was uncovered. Radiocarbon analyses of charcoal samples yielded dates back to A.D. 176 ± 250, though all sites were apparently occupied into proto-historic or historic times.

In general, the material, especially the pottery and shell adzes, reveal a close connection with the Marianas, the pottery being identical with Marianas Plain ware of Saipan and Tinian. On the other hand, other artifacts resemble those from non-Marianas Oceania, e.g., limestone taro pounders (suggesting those from Truk and Kusaie) and triton shell trumpets.

LING, SHUN-SHENG

- 1959 Origin of the Ancestral Temple in China, *Bulletin of the Institute of Ethnology, Academia Sinica*, 7, 141-184. (In Chinese with English summary)

Ling accepts as probable the hypothesis of Chang (v.s.) that a Neolithic cultural and linguistic base existed in China from which Malayo-Polynesian cultures and languages later developed. However, unlike Chang, he believes it probable that differentiation occurred within this base in China proper in the direction of later Polynesian and Indonesian languages and cultures. For evidence he points to the fact that the 'Polynesian' religious platform or pyramid, with a name apparently cognate to the Polynesian, was current in a different part of ancient China from that where the 'Melanesian' dolmen, with its seemingly Melanesian cognate designation, was found. Other linguistic

data are adduced to support this same conclusion. The Micronesian area is involved in his reconstruction of the eastward expansion of these cultures from Asia into Oceania:

'It is, therefore, a possibility that the Polynesians originated during prehistoric and proto-historic times in the eastern part of North China and the southern part of Manchuria and migrated into the Pacific regions via Micronesia, that the Indonesians originated in Central and South China and migrated southward into Malaysia, and that the Melanesians originated on the coasts and islands of the continental East Asia and migrated southward into Melanesia' (p. 183).

MASON, LEONARD

1957 Oceania, *Encyclopaedia Britannica*, 16, 695-698.

Attention is given to the peopling and culture development of Micronesia as an important aspect of larger Oceania prehistory. Mason's article may be briefly sketched.

The first migrations into Micronesia introduced a predominantly Indonesian physical type, quite possibly from the Moluccas or the Bismarcks, into the Palau or Truk. They occurred 'probably not later than 2000 B.C.'; however, they could not have been undertaken before horticulture, required for survival on most Micronesian islands, and sea-going, outrigger canoes were introduced into the home area of the migrants. The initial period of immigration was followed by one during which local Micronesian adaptation and regional specialization occurred, and in which further population movements from the south and perhaps also from Micronesia back into Melanesia took place.

From the higher islands of western Micronesia, the lower atolls close by may have been inhabited. From here their canoes may well have carried them southeastward to eastern Melanesia, where they settled until further migrations brought them to Fiji, Tonga, and Samoa. Alternatively, as suggested by Buck, they may have sailed from the Carolines directly to Samoa. Of significance in this connection are the facts that the central Micronesians strongly resemble the Polynesians in physical type and that Micronesian (excluding Palauan and Chamorro) is not too different from Polynesian linguistically, though it is less close than Fijian and some of the New Hebrides speech communities.

The present-day Palauans and Chamorro represent 'the final major invasion of Oceania in the prehistoric period', that which carried Deutero-Malays from Southeast Asia into the nearby Pacific islands. Still more recently, the islands of Kapingamarangi and Nukuoro in the central Carolines were settled by a minor backwash from Polynesia.

MOURANT, A. E. *et al.*

1958 *The ABO Blood Groups*. Thomas: Springfield.

The introductory paragraph accompanying this entry in the RYŪKYŪ ISLANDS Section of this *AP* volume applies equally in this instance.

Data from the following islands are compiled in the ABO series, with no distinction made for A subtypes: Unspecified Micronesia, Kusaie, Mokil and Pingelap, Ponape, Mortlock, Truk, Woleai, Saipan, Yap, Palau, and Sonsorol (pp. 213-214).

No Micronesian areas appear in the table which distinguishes the A_1 and A_2 subtypes. However, the Gilberts, the Marshalls, Kapingamarangi, Truk, and the Palau are included in the third series where are gathered the A_1BO group frequencies, A_2 having been proved absent in the sample (p. 240).

MYRIANTHOPOULOS, NTINOS C. and SAMUEL J. L. PIEPER, JR.

1959 The ABO and Rh Blood Groups among the Chamorros of Guam, *Amer. Journal of Physical Anthropology*, 17(2), 105-108.

On the basis of blood samples from 1,497 individuals, unavoidably including a few Filipinos, Chamorro phenotype percentages of O 47.9, A 29.9, B 19.4, and AB 2.8 were determined. (Note: the A and O column headings in Table 1, from which these figures are derived, are inadvertently reversed.) These data indicate that the Chamorro are very similar to the Palauans (though lower in O), but quite different from the Trukese and Gilbertese (higher in O; lower in A, B, and AB) and from the Kapingamarangi (lower in A; much higher in B and AB). Following Simmon's serological hypothesis and in agreement with Hunt's anthropometric evidence, the authors suggest that the comparatively high B frequency among the Chamorro may indicate a more Mongoloid physical type than occurs widely in Micronesia.

Only two samples, from Saipanese twins, were Rh (D) negative. In low Rh negative frequency, they 'resemble the rest of the Micronesian and Pacific peoples'. Since the Rh negative gene is quite common among the Spanish, these data suggest that the Spanish ingredient cannot be nearly as high among the Chamorro as generally assumed.

PETTAY, LOUANNA

1958 (publication date: 1959) Racial Affinity of Prehistoric Guam (abstract), *Proceedings, Indiana Academy of Science*, 68, 58.

Fifty male crania from precontact Guam were compared with contemporary Micronesian physical types. The author concludes: 'Metrically [they are] most comparable to an essentially mongoloid type found primarily in the Western Carolines. [They] bear little resemblance to a negroid type

found in Northeast and Southwest Micronesia or to a metrically generalized type occupying Central Micronesia. [Probably] this physical resemblance between the Marianas and the Western Carolines existed prior to European contact.'

RIESENBERG [read RIESENBERG], SAUL H.

1959 A New Guinea Canoe Prow found in the Marshall Islands, *JPS*, 68(1), 45-46.

A wooden canoe-prow figurehead which drifted ashore at Kwajalein in 1957 seems certainly to have been fashioned by the Wogeo Islanders of the Sepik River area of New Guinea. It has been identified, though not without reservations in the view of Riesenbergs, as a part of a canoe which was lost in the Wogeo area in 1947. If this is the case, its drift movements must have been very lengthy and yet also intermittent.

RIESENBERG, S. H.

1959 A Pacific Voyager's Hoax, *Ethnohistory*, 6(3), 238-264.

The report on Ponape and its inhabitants published in 1843 by the Venezuelan Michelena y Rojas as a record of his observations on the island two years earlier is shown to be a flagrant plagiarism from an 1836 Australian newspaper article by a Mr Campbell, who visited Ponape the previous year. To document this conclusion, Riesenbergs reproduces the entire little-known Campbell article. In addition to providing certain basic ethnographic data for this early period, some useful to prehistorians, the article describes the ruins of Nan Matol at some length.

RIESENBERG, SAUL H. and SHIGERU KANESHIRO

1960 A Caroline Islands Script, *Anthropological Papers* 60, Bureau of American Ethnology Bulletin, 173, 269-333.

This publication reconstructs in detail what must have been the history of the two unique syllabaries reported several times during the present century from the Eauripik to Puluwat island group in the Central Carolines. These two orthographic systems have been linked to native scripts of the Asiatic mainland, Easter Island, and still other areas, and have often been regarded as modern degenerate relics of an ancient well-developed writing method. The present authors demonstrate, however, that one system, of Roman alphabetic derivation, must have developed in 1905 on Eauripik as a misunderstood response to brief writing instruction given by the American castaway Alfred Snelling, a missionary on Truk. Having diffused from this island to Faraulep and having been discovered to be ill-suited to the writing of the native language, this system was abandoned in favour of a second and wholly new syllabary which was invented locally about 1907. This second syllabary employed symbols representing environmental and material culture features, others based on signs used in the earlier system, a few of possibly Japanese *katakana* and *kanji* derivation, and still others of an imaginative character.

SINOTO, YOSHIHIKO H.

1959 Drifting Canoe Prows, *JPS*, 68(4), 354-355.

A canoe prow found floating in Nukuoro lagoon in 1952, appears to have been manufactured on Manam Island (Sepik area, New Guinea). Evidently both this object and the Kwajalein canoe prow reported by Riesenbergs were carried westward from northern New Guinea by the south equatorial current until they reached the equatorial countercurrent. Thence they drifted eastward into Micronesia. A species of New Guinea pandanus is believed to have been introduced into the Eastern Carolines by this same mechanism. Possibly these currents also account for the unique Mortlock masks and the Melanesian-like dancing paddles of Ponape. Man too may have canoe-drifted into Micronesia along this same route.

Book Review

GIFFORD, D. S. and E. W.: Archæological Excavations in Yap, *Anthropological Records*, 18(2). Berkeley, University of California Press. 1959. pp. 149-224, 18 pls., 1 map.

It is difficult to review an archæological report by Gifford because there is virtually no possibility of argument with him. This report by both Mr and Mrs Gifford is no exception. The survey and excavations done on Yap between January 27 and June 2, 1956 were carefully done. The report presents detailed descriptions of the artifactual and other evidence found, including a report on present day pottery manufacture, and lengthy tables on the depth of artifactual and biological finds for all sites. The conclusions, both internal and external, are extremely

conservative, but with the amount of archæology done in this part of the world, that is all they should be. Conjecture would serve no purpose.

The Giffords' report indicates that Yap has been occupied for some time and that there has been culture change during that period. Carbon 14 dates go back to A.D. 176 for a sample from Pemrang which was gathered from four 6-in. levels between 48 and 72 in. depth. This site produced shell remains down to 90 in. and potsherds down to 84 in. The site of Bondanig-Wolom produced a date of A.D. 847 for charcoal from 60 to 66 in. Pottery extended to the bottom of the site at 90 in. Two varieties of pottery were found. One was called laminated and the other unlaminated. The laminated was much more common in the upper levels and decreased with depth with just the opposite for the unlaminated pottery. Sherds of the unlaminated pottery examined by Spoehr are, according to him, identical to the Marianas sherds which he called 'Marianas Plain'. Though hard stone is available on Yap, shell was customarily used for adzes. Closest relationships appear to be with the Marianas.

The only criticism that I can make is concerning the small size of the pictures in Plates 24 to 31, which cover archæological features and detailed illustrations of pottery manufacture. They could well have been reproduced in a much larger size; there was plenty of waste space available on the pages and the illustrations were worth seeing. Plates 32 to 41, taken in the studio, used all the available page area and are much more satisfactory.

This was Professor Gifford's last work. It is worthy of him.

W. G. S.

Polynesia

ROBERT C. SUGGS

Received 10 October 1960

MELANESIAN-POLYNESIAN RELATIONS

One of the most interesting developments of recent archæological field work in Eastern and Western Polynesia is the appearance of strong evidence of an early, close relationship between Polynesian and Melanesian cultures.

Mr John Golson of the University of Auckland, who conducted excavations in Samoa and Tonga in 1957 under a grant from TRIPP, reports that examination and analysis of the quantities of pottery recovered in Tonga demonstrate very clear similarities to pottery excavated by Gifford and Shutler at Lapita Koné, New Caledonia [see Archæological Excavations in New Caledonia, *Anthropological Records*, 18(1), 1956]. Only 1% of the Tongan sherds showed any decoration, and the most common form of decoration was cord-marking. However, the remaining decorated sherds displayed geometric motifs—diamond patterns, panels with diagonals—or loops, arcs and curves, all incised in *pointillé*, a technique resembling the New World 'stab and drag' or 'dentate-stamping'.

Further work in Tonga, since Golson's departure, has brought additional evidence of the close similarity between Tongan and New Caledonian pottery, demonstrating that the similarities seen in the limited collections made in 1957 were by no means fortuitous.

The most recent excavations on Tonga were made on the Mangaia Mound site in Nuku'alofa. The first excavations of the mound were made in 1929 by McKern, who got much of his ceramic collection from the excavations in this site. Golson tested the site on 1957 but was unable to do anything but limited testing as the mound is now the site of the main Seventh Day Adventist Church in Tonga, which however, is planning a programme of construction for the church; the Mission pastor agreed to inform Golson before construction began so that excavations could be made on the building sites. When informed of the imminence of construction on the mound, Golson was able to arrange for Mr and Mrs T. L. Birks of the University of Auckland Archæological Society to spend two months excavating the site and testing others in the vicinity.

The mound, approximately three-quarters of an acre in area, was bisected by two lines of trenches running from north to south and east to west. Originally, 9 by 4 foot excavations were made along these lines, leaving earth baulks between the excavation units which were subsequently removed.

The mound was 42 inches deep in the centre; composed entirely of midden material except for a layer of coral sand on the surface of the central area and a

6-inch basal layer in which the midden material had been mixed with the underlying reddish-brown clayey soil.

The site had originally been a natural rise of about 3 feet above the surrounding terrain. Excavations revealed a number of pits dug into the original ground surface. Three types were distinguishable: *a.* wide shallow pits with undercut sides; *b.* deeper bell-shaped pits, 2 to 3 feet in depth; *c.* straight-sided pits with rounded bottoms. Postholes were also located in the subsoil, but no pattern was discernible in the limited excavation area.

Several thousand potsherds were recovered, reddish in colour and generally small. The sherds were from pots produced by the paddle and anvil method. Some sherds showed traces of a coating of gum, applied to the pot immediately after firing. Two possible lug handles were found as were some spout fragments.

About 1% of the sherds were decorated, as was the case in 1957, but the decorations evident in this collection enlarged the area of similarities between the Tongan and New Caledonian material producing larger quantities of the distinctive *pointillé* ware with additional New Caledonian type designs not found in the earlier excavations. A site in the vicinity of Mangaia produced sherds of flat-bottomed plate similar to those found at Nasigatoka in Fiji by Gifford, see Gifford, E. W., *Archæological Excavations in Fiji, Anthropological Records*, 13(3). It is noteworthy that at the same site in Fiji, Gifford also recovered sherds of the New Caledonian *pointillé* ware.

Other artifacts from the Mangaia site were: *Tridacna* shell adzes, andesite adze fragments, files of pumice and granitic rock, andesite knives; and needle-like bone objects, possible personal ornaments, fragments of *Conus* and *Trochus* shell bracelets, as well as fragments of a limestone bracelet, also appeared—further indications of Melanesian connections.

Bones of fish, birds and rats were recovered from the midden, but no pig or dog remains were identified at the date of my last communication with Golson.

Carbon samples were taken from the hearths, charcoal and ash in the midden, but as yet no age determinations have been reported.

In the summer of 1960, the Birks returned to Tonga to continue exploration of a particularly rich area of Mangaia mound and explore 2 or 3 neighbouring sites.

Golson worked in New Caledonia from December 1959 to February 1960, excavating sites on the Isle de Pins in which quantities of the *pointillé* ware were uncovered by the French investigators Avias and Lenormand. Golson also made a survey of the stone alignments and other monuments in the interior of the island.

Thus, it is clear that strong similarities exist between the archæological cultures of Tonga, New Caledonia, and to a limited extent, Fiji. Such similarities may date from a period well back in the first millenium B.C., as indicated by the 880 B.C. \pm 200 radiocarbon date for the *pointillé* pottery excavated at Lapita by Gifford and Shulter.

From the other end of the Polynesian triangle comes additional evidence of early Melanesian-Polynesian connections from the island of Nuku Hiva in the Marquesas, where the writer carried out extensive excavations in 1956, 1957 and 1958 under the auspices of the American Museum.

In recent publications (Suggs 1960a, 1960b) the implications of the Marquesan archaeological record were discussed, in so far as they contributed to a definition of the source of the Marquesan settlement.

The most important evidence for determining the origin of the Marquesan settlers was that obtained in excavations on Site N Haa 1, a beach site in the valley of Ha'atuatua on the northeast corner of Nuku Hiva.

Here, an extensive village site was uncovered, consisting of several small habitation areas, a ceremonial structure and a burial ground. Earliest occupation of this site by radiocarbon age determinations was *c.* 120 B.C. \pm 160 (see Shapiro, H. L. and Suggs, R. C., *New Dates for Polynesian Prehistory*, *Man*, 1959).

The richness of the site made it possible to obtain a very good picture of all aspects of Marquesan life at this very early period in prehistory.

Several unusual features of the cultural assemblage of N Haa 1 indicate strong Melanesian influence on the parent group from which the Marquesan settlers separated. These include:

a. The first pottery found in Eastern Polynesia, of which one sherd displays a characteristic ground rim treatment found in early Fijian sites and also in the New Caledonian sites from which the *pointillé* ware was recovered. The Marquesans apparently manufactured pottery in small quantities up to about A.D. 1000, as a large crude sherd was found on a site of that period in the valley of Ho'oumi.

b. Pearl shell disc ornaments of the characteristic Melanesian 'kap kap' variety. These continued in use until the European contact period in the Marquesas.

c. Small vegetable-peelers made of perforated shells of the *Tonna* species. These are a characteristic tool in early New Caledonian sites, also appearing in Fiji.

d. Cylindrical and plano-convex stone adzes of Melanesian type.

With these undoubtedly Melanesian-type artifacts was an assemblage that bore strong Western Polynesian characteristics including houses with oval or boat-shaped floor plans, rectangular cross-section adzes, and bonito lures. Therefore, it was concluded that the settlers of the Marquesas originated in a Western Polynesian island culture with decided Melanesian characteristics.

Now, the evidence brought forward by Golson indicates that such a culture did, in fact, exist in the Tongan group, although the dates of those manifestations are not yet certain.

Several possible interpretations may be placed upon these exciting data. The most likely is, in my own opinion, that the increasing similarities between the archaeological cultures of Polynesia and Melanesia as evident in the results of field work in the Marquesas, Tonga, New Caledonia and Fiji, indicate a common source for the cultures of these islands at a point in time earlier than has presently been reached in archaeological excavations in either area. The Melanesian-Polynesian dichotomy, so evident on the ethnographic level, may well be obliterated on the archaeological level. Support for this prehistoric convergence of Polynesian and Melanesian cultures comes from the historical linguists, who have now included all Polynesian languages as dialects of a language family including the tongues of the Banks, New Hebrides and Fiji archipelagoes.

Naturally, other interpretations are possible. These strong similarities may be taken as evidence of extensive trade relations between Western Polynesia and Melanesia, or as the results of earlier Melanesian settlers of Western Polynesia being overrun by later Polynesian invaders and passing on some of their material culture to the conquerors. I submit, that neither of these interpretations, nor the numerous possible variations of them, fit the present data as well as that of a common origin for the Melanesian and Polynesian cultures.

POLYNESIAN LEGENDS

During the past several years it has become increasingly clear that the value of Polynesian oral traditions may have been underestimated. From the stand taken by the early traditionalists giving naive acceptance to every bit of legendary material, the pendulum carried some of the Polynesian prehistorians to the other extreme of denying almost completely any value to the oral literature of the area. Current field work and research has brought out many interesting examples of legendary evidence which support, illuminate and expand the archæological data.

Perhaps the most impressive example of the use of traditional evidence in prehistoric studies is offered by Barthel's work in Easter Island. In an earlier *AP*, 3(1), (Polynesia), Barthel's study of the Easter Island script, which drew heavily on traditional sources, was discussed in some detail. In more recent articles by the same author (see bibliography) further use is made of traditional sources in dealing with the problems of identifying the high god of Easter Island (Makemake: Tiki), determining the age and use of the famous stone *mata'a* points, and developing a hypothesis of two separate periods of settlement for the island.

The comparative methodology for evaluating and reconstructing traditions used by Barthel has unfortunately been too rarely seen in Polynesia in the past.

Golson's archæological work in Samoa, which is also discussed in *AP*, 3(1), (Polynesia), gives another proof of the value of traditions to the field archæologist. Golson found that prehistoric settlement patterns and village migrations could be developed from a study of Samoa regional legends, while it was also possible to establish relative chronology for the surface archæological remains with the same data.

Katherine Luomala's entertaining work on the Menehune of Oceania (Luomala, K., *The Menehune of Polynesia and Other Mythical Little People of Oceania*, Bernice P. Bishop Museum *Bulletin* 203) has demonstrated the effectiveness of techniques of textual analysis and criticism in demolishing one of the most abused myths of modern Polynesia—that of the Hawaiian black dwarfs which were seen by many as representing an earlier pre-Polynesian culture in the Hawaiian chain.

The author found that Marquesan historical traditions of the origin of the Marquesas settlement were supported by the findings of archæological excavations on the earliest site investigated in that archipelago. Traditions were also a help in interpreting the archæological remains of later periods of Marquesan prehistory, especially in matters of intertribal relations, warfare and settlement patterns.

While the historical traditions often are quite useful, the often-cited genealogical dates for historic events have proven time and again to be faulty. In a comparison

of the dates obtained by C-14 for Polynesian archæological remains with those obtained by traditional genealogy counts, errors of almost 50% (1000 year error in a 2000 year time period), were evident in the genealogical dates (Suggs 1959, 1960).

It is clear that the area of Polynesian oral traditions is a fertile field for future work. Much remains to be done in the way of systematic content and structural analyses of this literature, followed by detailed comparisons of traditions from within the Polynesian area as well as that from adjacent islands in Melanesia and Micronesia. There is no reason why refined analytic tools such as those developed by students of history and literature, for example, cannot be also developed for the fascinating corpus of Polynesian traditions.

NEWS BRIEFS

Excavations in Tahiti

The Bernice Bishop Museum Expedition to Tahiti, under the direction of Dr Kenneth P. Emory, arrived in Tahiti in April 1959 to carry on an archæological survey on the islands of Tahiti, Mo'orea, and Ra'i'atea, planned to last until mid-September.

Emory's team was composed of Mr Yosihiko Sinoto, a Fellow of the Museum, Dr Bengt Danielsson, well-known Swedish anthropologist, and Richard Pearson, a Canadian archæologist.

From the last report (a personal communication from Y. Sinoto), few productive sites had been found on Tahiti itself. On the adjacent island of Mo'orea, however, some sites with more promise had been located. No intensive excavations had as yet been conducted.

Also at work in the Society Islands were Dr Douglas Oliver and Mr Roger Green of Harvard University. Oliver was conducting a community study of selected communities on Mo'orea and Ra'i'atea, while Green conducted archæological settlement pattern studies to provide the time dimension for Oliver's work, yielding a dynamic picture of native land use from the archæological past up to the present day. A large ceremonial complex was discovered on a high seaside ridge in Mo'orea, consisting of over 60 structures representing several types of temple architecture. The differentiation between temple types indicates that the site may have been inhabited for a long time, during which ceremonial architecture advanced considerably.

Before joining Oliver in the Society Islands, Mr Roger Green of Harvard carried on excavations on Mangareva for five months under the auspices of the Department of Anthropology, American Museum of Natural History, New York. According to Dr H. L. Shapiro, Chairman of the department, Green encountered a number of productive sites on beaches and in caves on the central island and surrounding islets of the Mangareva chain. One cave site contained a midden accumulation 3 ft. in depth. Cultural materials recovered included fishhooks and fishhook-making debris, stone adzes, stone flakes, and coral files. The collection is now being studied at the American Museum, and a report will be prepared for publication.

New Date from the South Point Site

Recently published radiocarbon age determinations on samples removed from the lowest level of Site H-1, the Sand Dune site on South Point, Hawaii, give the oldest date yet obtained for a Hawaiian archaeological site— 1935 ± 60 B.P. or A.D. 124 ± 60 .

On the basis of fishhook typological analyses and seriations, the South Point site has long been considered by Emory as representative of the earliest known culture in the Hawaiian group. Carbon-14 dates from the upper portions of the site, however, were anomalous and gave evidence of contamination.

The early date was processed at the Groningen Laboratory, where treatment for contamination of the charcoal sample was made and corrective factors applied to the calculations to compensate for the Suess effect.

The date finally ties down the lower end of the Hawaiian chronological scale. Heretofore, Emory had estimated that the site might have been occupied as early as A.D. 500.

The significance of the early date is heightened by virtue of the large assortment of artifacts obtained in association with the dated sample. It also demonstrates the utility of Emory's seriation techniques for establishing relative chronology in the absence of more objective data.

PUBLICATIONS OF NOTE

The long-awaited report on Hawaiian archaeological fishhooks has been published by the Bernice P. Bishop Museum. *Hawaiian Archaeology—Fishhooks* by Kenneth P. Emory, William J. Bonk, and Yosihiko H. Sinoto (Bernice P. Bishop Museum *Special Publication* 47, 1959) is a milestone in Polynesian archaeology.

The slim volume contains the well-organized results of several years of detailed study of the voluminous archaeological fishhook collections obtained in excavations sponsored by the Bishop Museum since 1950.

This study is of importance for several reasons: first, fishhooks were found to be the most sensitive relative dating index of all Hawaiian archaeological materials. It was found that the relative percentages of various fishhook types fluctuated through time. Once this pattern was developed by site seriation and the seriations checked by radiocarbon dates, it was possible to place any site in its approximate position in the time column on the basis of a typological break-down of the fishhook collections removed from the site. These typological concepts have long been in vogue in the New World, as has the technique of site seriation on the basis of significant artifact types. Emory's study, however, represents the first attempts to apply such sophisticated concepts in the Polynesian area.

The study further establishes a nomenclature for hooks and a typological classification that can serve as a model of ordering collections from other areas of Polynesia, in future archaeological work. Although it is certainly not expected that the Hawaiian types will be duplicated everywhere in Polynesia, the Hawaiian classification will serve as a guide and a framework around which later typologies may be constructed in other regions.

In addition to typological studies, analyses were also made of hook proportions and gross size, and materials used in manufacture. A comprehensive account of native techniques of hook manufacture is included.

The distribution of hook types in individual archæological sites is given, as is the distribution of the types among the islands of the Hawaiian group.

Chronological sequences are discussed for each type in detail, as well as being presented in both graphical and pictorial forms, aiding comprehension of the essential points of the history of fishhook development in the island.

Finally, a series of very adequate photographs support the numerous line drawings in the text, rounding out the report.

Aside from the methodological importance of the report, its value as a source for workers in the Polynesian area is too obvious to mention.

Emory, Bonk, and Sinoto are to be congratulated on their outstanding contribution to our knowledge of the Polynesian past.

Radiocarbon Dates Significant for Pacific Anthropology, Pacific Science Association *Information Bulletin*, 2(3), by K. P. EMORY and Y. H. SINOTO is another important source of information for Pacific archæologists. This compilation of most of the dates available up to the time of publication (May 1959), is assembled from very diverse sources which are difficult if not impossible to obtain for many students of the area.

Dates included are from: Borneo, Philippines, Australia, Caroline Islands, Marianas Islands, New Caledonia, Fiji, Samoa, New Zealand, Marquesas, Austral Islands, Line Islands, Hawaiian Islands, and Easter Island.

Significant omissions are several of the Easter Island dates and the latest Hawaiian radiocarbon date from the lowest level of the South Point site— 1835 ± 60 B.P. or A.D. 124 (Groningen 2225).

The Island Civilizations of Polynesia by ROBERT C. SUGGS (New American Library Mentor Series) was published in October 1959. It presents a survey of the present status of Polynesian prehistory, drawing on archæology, physical anthropology, ethnology and linguistics, as well as relative material fields of botany, zoology, and oceanography. The author presents a tentative reconstruction of the movements of the Malayo-Polynesians through the Pacific; the final separation of the proto-Polynesians and their occupation of the islands of the Polynesian triangle.

Polynesian geography, linguistics and physical anthropology are discussed first. Then, archæological data from China, Formosa, South Asia, the Philippines, Indonesia and Melanesia are considered for their light on Polynesian origins. A detailed discussion of the evidence for Polynesian-Melanesian genetic connections is also included and the archæology of each of the major Polynesian islands or archipelagoes discussed. There are chapters also devoted to native water craft and navigation, New World contacts and the Kon-Tiki 'theory', while in the final chapter problem areas for future work are outlined.

BIBLIOGRAPHY

Books and Articles

BARTHEL, T. S.

- 1958 Female Stone Figures on Easter Island, *JPS*, **67**, 252-255.
- 1959a Rundbauten auf der Osterinsel, *Baessler-Archiv*, Neue Folge, **7**.
- 1959b Hauptlingsgenealogien von der Osterinsel, *Tribus*, **8**.
- 1959c Neues zur Osterinselschrift, *ZFE*, **84**(2).
- 1960a Wer waren die ersten Siedler auf der Osterinsel, *Ethnologica*, Neue Folge, **2**.
- 1960b Obsidianwaffen von der Osterinsel, *Jahrbuch des Museums für Völkerkunde zu Leipzig*, **17**, (1958).

DOUGLAS R. and J. M. STAVELEY

- 1959 The Blood Groups of the Cook Islanders, *JPS*, **68**, 14-20.

EMBER, MELVIN

- 1959 The Nonunilineal Descent Groups of Samoa, *AA*, **61**, 573-577.

EMORY, K. P.

- 1958 Pacific Islands (New Guinea, Melanesia, Micronesia, and Polynesia) No. 1, 1958, *COWA Survey and Bibliography; Area 21*, Cambridge, Council for Old World Archaeology.
- 1959a Origin of the Hawaiians, *JPS*, **68**, 29-35.
- 1959b Radiocarbon Dates from Hawaii, *JPS*, **68**, 327-347.

EMORY, K. P. and Y. H. SINOTO

- 1959 *Radiocarbon Dates Significant for Pacific Anthropology*, supplement to: *Pacific Science Association Information Bulletin*, **2**(3).

EMORY, K. P., W. J. BONK and Y. H. SINOTO

- 1959 *Hawaiian Archaeology—Fishhooks*, Bernice P. Bishop Museum *Special Publication* **47**.

FINNEY, BEN R.

- 1959 Surfing in Ancient Hawaii, *JPS*, **68**, 327-347.

FISCHER, J. L.

- 1958 Folktales, Social Structure, and Environment in two Polynesian Outliers, *JPS*, **67**, 11-36.

GRACE, GEORGE WILLIAM

- 1959 *The Position of the Polynesian Languages within the Austronesian (Malayo-Polynesian) Language Family*, Bernice P. Bishop Museum *Special Publication*, **46**; Indiana University Publications in Anthropology and Linguistics **16**; Memoir 16 of the *International Journal of American Linguistics*, **25**(3).

NAYACAKALOU, R. R.

- 1959 Land Tenure and Social Organisation in Tonga, *JPS*, **68**, 93-114.
- 1960 Land Tenure and Social Organisation in Western Samoa, *JPS*, **69**, 104-122.

ROBERTS, R. G.

- 1958a The Legend of the first Polynesian Adventurers to settle on the Islands of Rennell and Bellona, *JPS*, **67**, 3-10.
- 1958b Te Atu Tuvalu, A Short History of the Ellice Islands, *JPS*, **67**, 394-423.

SINOTO, Y. H.

- 1959 Solving a Polynesian Fishhook Riddle, *JPS*, **68**, 23-28.

SPOEHR, A.

- 1960 Port Towns and Hinterland in the Pacific Islands, *AA*, **62**, 586-592.

STAVELEY, J. M. and R. DOUGLAS

- 1959 Blood Groups in Tongans (Polynesia), *JPS*, **68**, 348-353.

SUGGS, R. C.

1960a *The Island Civilizations of Polynesia*, New American Library Mentor Series, 256 pp., 16 pl.

1960b Historical Traditions and Archæology in Polynesia, *AA*, **62**, 764-773.

n.d. The Derivation of Marquesan Culture, *M*, (in press).

TAYLOR, DONNA

1960 The Relation of Matplaiting to Barkcloth Decoration in Polynesia, *JPS*, **69**, 43-53.

VAYDA, A. P.

1959a Polynesian Cultural Distributions in New Perspective, *AA*, **61**, 817-828.

1959b A voyage by Polynesian Exiles, *JPS*, **67**, 324-239.

Book Reviews

BARTHEL, T. S., *Grundlagen zur Entzifferung der Oster inselschrift*, reviewed by N. A. Butinov in *JPS*, **68**, 47-50. (1959).

DANIELSSON, BENGT, *Forgotton Islands of the South Seas*, reviewed by R. C. Suggs in *JPS*, **68**, 53-54. (1959).

GRACE, G. W., *The Position of the Polynesian Languages within the Austronesian (Malayo-Polynesian) Language Family*, reviewed by Isidore Dyen in *JPS*, **69**, 180-184. (1960).

MARSHALL, D. S. (ed.), *Songs and Tales of the Sea Kings*, reviewed by K. P. Emory in *AA*, **60**, 791-794. (1958).

MAZIERE, FRANCIS: *In Search of Tiki*, reviewed by G. M. Denning in *JPS*, **69**, 67-68. (1960).

SCHORI, DRETER: *Das Flosz in Ozeanien*, *Volkerkundliche Beitrage zur Ozeanistik*, **1**, reviewed by T. Barthel in *ZFE*, **84**(2). (1959).

New Zealand

ROGER DUFF

Received 28 November 1960

PERSONAL NOTES

The progress of N.Z. Archæology for 1960 is overshadowed by the news of the impending departure of Mr J. Golson, Senior Lecturer in Pre-history, University of Auckland, who has accepted the offer of a Research appointment at the Australian National University, Canberra. Mr Golson takes up his duties in March 1961.

The first professionally trained archæologist to work in the New Zealand field, Mr Golson, in five short years since his Auckland appointment, has proved the outstanding practitioner and theoretician in the history of New Zealand archæology. His influence has been exercised not only through the students who were fortunate enough to take his lectures, but, more permanently perhaps, through his guiding influence as secretary of the New Zealand Archæological Association, and as the founder of the Auckland University Archæological Society, whose members filled the archæological vacuum which formerly characterized the North Island and inspired the formation of widespread groups in other districts of the North Island.

In bidding farewell to Mr Golson we can take wry comfort from the platitude that New Zealand's loss is Australia's gain. The Association can take comfort however, from the acceptance of the important post of Secretary by Mr P. W. Gathercole, Cambridge-trained archæologist and a contemporary of Mr Golson, whose appointment to the Otago University and Museum was announced in last year's report.

We also regret the return to the United Kingdom of Miss Susan Davis, of the Dominion Museum, Wellington, who has played an outstanding part in the organization of local archæology, both as council member of the Association and as a member of the Wellington group.

On the eve of her departure Miss Davis shouldered the main responsibility of organizing the Association's Fifth Conference at Wellington in May 1960. On this occasion the Association was granted status as an autonomous section of the Ninth Science Congress of the Royal Society of New Zealand. Owing to pressure of time on the part of your New Zealand Correspondent, the Proceedings of the Congress will not be detailed here, as they are fully reported in the *Journal of the Polynesian Society* for June 1960, and will be also summarized in the *Transactions* of the Royal Society of New Zealand.

Miss Susan Hirsch of Auckland is congratulated on her marriage to Mr Ralph Bulmer, Lecturer in Social Anthropology, University of Auckland. Mrs Bulmer accompanied her husband to New Guinea where she carried out an archæological survey of the Central Highlands District, Australian New Guinea.

Mr Yosihiko Sinoto, Research Fellow of the Bishop Museum, Honolulu, visited New Zealand Museums in September and October 1960 in the course of a typological study of Polynesian fishhooks.

Dr T. T. Barrow, Ethnologist of the Dominion Museum, Wellington, has returned to duty following a six-month visit to Bishop Museum (Honolulu), Japan and the Philippines under a SEATO Research Fellowship.

Mr Colin D. Smart has been appointed assistant-ethnologist of the Dominion Museum.

Dr Roger Duff, Director, Canterbury Museum, leaves in January 1961 on a nine months' SEATO Research Fellowship to study aspects of the Neolithic of South-east Asia and Polynesia.

Messrs J. Golson, W. Ambrose, L. Groube and C. D. Smart of the Auckland University Group extended their activities to New Caledonia in January and February of this year.

Obituary: Leslie G. Kelly (Te Putu)

Archæological studies in New Zealand suffered a serious loss through the untimely death in a railway accident on August 6, 1959, of Leslie G. Kelly (Te Putu), a genealogist and historian of the Tainui tribes of the Waikato district. In addition to his major book *Tainui* (Polynesian Society, Memoir 25, 1949), Leslie Kelly had contributed many papers to the Society's *Journal*, describing Maori *pa* of the contact period, with full traditional and historical documentation.

FIELD WORK AND RESEARCH

North Island

The most important event of the year has been the confirmation of the Moa-hunter association of sites in the Opito area, Coromandel Peninsula, and Waingongoro Mouth on the south-west coast of Taranaki Province. On grounds of reports from an earlier era of investigation, these were both proposed as probables (DUFF 1956: *The Moa-hunter Period of Maori Culture*) but confirmation awaited the application of systematic archæological techniques of today.

Credit for the Waingongoro confirmation goes to Dr A. G. Buist of Hawera, whose visits to Ohawe Beach were finally rewarded by wind erosion exposing an oven where the occupants had thrown back an articulated left leg of a small genus of moa *Pachyornis mappini*. A field photograph dramatically confirmed the evidence of the bones lying still *in articulo*, with the exception that a visiting small boy had disarranged the *fibula*. The implications of this important find are discussed by Buist and Yaldwyn (Bibliography, below).

Evidence for the Moa-hunter association of the Coromandel sites of Opito (No. 1) and Sarah's Gully rests less on any spectacular discovery since last report than on the submission to Mr R. J. Scarlett, Canterbury Museum, of moa midden bones recovered during the work of several seasons by Mr Golson's Auckland University group. Mr Scarlett is satisfied as to the primary association of the moa remains (including eggshell at Opito). The most interesting aspect of his species

determination is that the bulk of the bones comprise the largest North Island moa (*Dinornis giganteus*), the others the smallest species of *Dinornis* from the North Island (*D. Struthiodes*) (the *D. Novae Zealandiae* of Archey and Oliver).

Carbon 14 dates were established as follows: Opito, No. 1 A.D. 1390 ± 50 ; Sarah's Gully, moa *pelvis* in oven (A.D. 1369 ± 50). These dates are somewhat later than expectation, approximating with the traditionally assigned A.D. 1350 for the arrival of the last Fleet migration from Polynesia. In an inaccessible 'pocket' such as the Coromandel Peninsula time-stayed Moa-hunter Maori communities may well have survived in comparative isolation.

I continue to apply the term Moa-hunter Maori to describe the association of a material culture of archaic *facies* with contemporary moa remains, but in an important Paper (Bibliography, below) Golson proposes Archaic to embrace and replace Moa-hunter as a cultural term.

There is much to be said both for and against the Golson proposal and I shall not anticipate here the debate which may solve it.

Inconclusive attempts to establish a stratigraphical connection between the Sarah's Gully and Opito Moa-hunter beach middens and structures of presumed later origin were made by Auckland University groups organized by Mr L. Birks and Mr R. H. Parker in December 1959 and January 1960. Mr Birks concentrated on a small *pa* site overlooking the Sarah's Gully beach midden, and Mr Parker on a complex of house and storage pits overlooking Opito No. 1. Each excavation was a model of method and yielded much important internal information.

Some idea of the scale of operations and the complexity of features was provided by the Auckland University Society's emergency excavation of Maungarei (Mount Wellington), a typical example of the fully developed classic Maori *pa* as established on the volcanic cones of the Auckland city area. A City Council decision to demolish the cone to establish a reservoir left the Society about six weeks to dig a complete section from the lower terrace to the crater. Even then the bulldozers moved in before the agreed deadline. The most encouraging aspect of a discouraging story was the action of the New Zealand National Historic Places Trust in making a sum of over £300 available to recruit full-time labour from Society members. There was the usual scarcity of artifacts typical of the excavation of a hill *pa* which leaves the period of occupation to be deduced from the succession of structures, and C14 samples, not always an easy matter.

Waitara Swamp Search. At the invitation of the Taranaki Museum authorities, Dr Roger Duff took charge of a large scale project, during five weeks in January and February 1960, to search one of several swamps near Manukorihi *pa*, Waitara, where swamp-buried wood carvings of the late Classical Maori period had been found. Although no further carving was found in the site selected, the Olsson swamp (which had produced four in previous years), a new interpretation of the reason for burying carvings in swamps was gained. Whereas previous opinion favoured the hypothesis of removal and burial of valuable panels from buildings threatened by tribal warfare, the Waitara search supported the proposition that swamps served as the 'workshop' in which the carving was carried out, with frequent re-immersion as the wood became too hard for the stone adze and chisel. Much evidence of long

continued woodworking was found in the area adjacent to which a magnificent door-lintel was found in March 1959 (see Bibliography). That swamps served for the seasonal burial of agricultural implements was demonstrated by the recovery of over 20 digging sticks (most with adjacent foot-rests) found in carefully laid caches scattered throughout the area dug. A stone causeway and brushwood fascines at swamp bottom testified to regular Maori traffic through the swamp. In all, swamps were seen to be important archæological sites, which had been generally overlooked.

Two fine carvings recovered by accident from other swamps in the Waitara district during the course of the five weeks' operation, were presented to the Taranaki Museum.

Because of the importance of obtaining Maori goodwill in an area close to the tribal *marae* (albeit on European land) the organizer publicly requested permission from the elders of Ati-Awa in the carved meeting house *Te Ika-roa-a-Maui* (Maui's Long Fish). A widely attended service to lift the *tapu* was conducted in the meeting house before operations started. The resultant Maori participation and good will were most encouraging.

MUSEUMS

Taranaki. The Waitara archæological project greatly assisted the public relations of the re-organized Taranaki Museum, which occupies the complete mezzanine floor of the New Plymouth War Memorial Civic Centre, opened on July 14, 1960.

Mr Rigby Allan, Acting-Director, was able to form a Taranaki Museum Archæological Club from local members of the Waitara volunteers.

Auckland. The current rate of progress of the museum movement in New Zealand was marked by the opening on March 19, 1960, of the very extensive additions to the already large and dignified AUCKLAND WAR MEMORIAL MUSEUM, the repository of vast collections of ethnological and archæological material from Polynesia, Melanesia and the South Pacific.

ARCHÆOLOGICAL SURVEYS

Active programmes were continued by the Auckland University group, in the Auckland Isthmus area, by the Dominion Museum group on the Wairarapa coast, by the Rotorua Historical Society in the Bay of Plenty area, by the Whanganui Museum in the museum's area, etc.

SOUTH ISLAND

In May 1959, 22 members of the Canterbury Museum Archæological Club, under the leadership of Dr Roger Duff, spent a fortnight extending the grid of the 1955 excavations at the Moa-hunter site at Wairau Bar (main occupation approximately A.D. 1150). The visit again confirmed the richness of the sight; an area 20 by 50 ft. selected as the main site produced 19 adzes typical of the Moa-hunter technique. Most interesting among these was a cache of 13 in all stages of completion,

confirming that Wairau served as an important depot for the manufacture and distribution of adzes carried there in a first stage 'roughout' form from the argillite quarries of the Nelson mineral belt.

The discovery at Site 2 of two Moa-hunter period burials was reported, as promised in 1955, to representative elders of the local Rangitane Maori community who feel a natural interest in Maori remains, from all periods, in their area. Their spokesman showed sufficient interest in the exposed burials to step down into the grave pit to inspect them and sufficient understanding of the Museum's purpose to come to the following important agreement concerning future burials.

This was that the Museum agreed to report any burials discovered, and was permitted to remove the overburden for purposes of photography and measured drawing, to remove any grave goods, but to leave the skeletons undisturbed and cover them up again.

This offer applies only to the Canterbury Museum as a public archaeological authority in which the Rangitane Maoris have confidence.

Post-Fleet Maori Culture at Kaikoura

During 1960 the Canterbury Museum completed the first phase of a programme, commenced in 1955, to isolate the culture of the first acknowledged post-Fleet tribe, the Ngatimamoe, to invade the South Island, the date of the crossing of Cook Strait being ascribed by tradition to the year A.D. 1500, the southward passage of the tribe along the east coast being marked by the first South Island appearance of the defended habitation (the *pa*). The investigation was concentrated on two *pa* sites in the Kaikoura district, Peketa (traditional dates 1550 to 1600) and Pari Whakatau (traditional dates 1600 to 1650).

The Peketa investigation (1959) confirmed the Classical Maori aspect of the culture (cannibalism, the extensive exploitation of nephrite by way of the upper Waiau route to the Westland source, the appearance of the barbed composite fishhook point). At Pari Whakatau the picture of the material culture was amplified by the predominance of the adze type 2 B, (DUFF 1959) the use of human bone for fishhooks, which comprised the one-piece bait hook, with shank-barb, the barbed composite point, the unbarbed composite point of the Barracouta lure. Carbon 14 analysis established the date of the occupation as A.D. 1636 \pm 60.

At Pari Whakatau attention was focussed on a common New Zealand archaeological feature about the use of which there have been conflicting opinions, namely house-sized rectangular pits surrounded by a prominent raised rim of spoil. The careful excavation of 3 of a total of 19 such pits at Pari Whakatau establishes that these were houses, a variant of the *whare puni*, with earth reinforced sides, which survived in Maori use in the North Island until the twentieth century. The symmetrical raised rim is shown to be produced by the collapse of an asymmetrical earth reinforcing of the portion of the house-wall projecting above the pit foundation. Wherever found the raised rim can now be taken to imply earth banked against the walls of a structure, presumably a house. The presumption of habitation use of the Pari Whakatau pits was also supported by a complex, but coherent, pattern of post-holes, supporting a heavy roof and, possibly, raised sleeping benches.

Site Surveys

The Canterbury Museum's excavational programme in the Kaikoura district was amplified by a highly competent site survey of *pa* on the Kaikoura Peninsula carried out by Mr T. Fomison, as a member of the Museum's Club.

In South Canterbury Mr Fomison completed, on behalf of the Regional Committee of the Historic Places Trust, a fully documented site survey of the extensive instances of Maori drawings of unknown age, on limestone shelters in the valleys of Pareora and Opihi rivers. Further south, in the Waitaki Gorge, Messrs W. Ambrose and F. Davis completed, on behalf of the Trust, their detailed study of rock drawings due to be drowned out by the Benmore hydro-electric project. The State Hydro-electric Department aims to remove, for housing in the Canterbury and Otago Museums, selected sections of the rock-shelter walls featuring drawing.

BIBLIOGRAPHY

ADKIN, G. LESLIE

1959a An Unrecorded Type of Patu from Western Marlborough Sounds, *JPS*, **68**, 86-92.

1959b *The Great Harbour of Tara*. Christchurch, Whitcombe & Tombs.

ARCHEY, GILBERT

1959 A carved Flageolet-*Putorino*, *JPS*, **68**, 83-85.

BARROW, T. T.

1959 Free-standing Maori Images, *Anthropology in the South Seas*, 111-120. New Plymouth, New Zealand.

BLAKE-PALMER

1958 Henry Devenish Skinner—An Appreciation, *JPS*, **67**, 97-103.

BUIST, A. G. and J. C. YALDWYN

1960 An Articulated Moa Leg from South Taranaki, *JPS*, **69**, 76-88.

CAIRNS, K. R.

1958 The Hakikino Hill Pa, *JPS*, **67**, 330-334.

CAMERON, R. J.

1960 Dendrochronology in New Zealand, *69*, 37-38.

DUFF, ROGER

1959 Neolithic Adzes of Eastern Polynesia, *Anthropology in the South Seas*, 121-148.

1960a The Coming of the Maoris, *N.Z. Junior Encyclopædia*. Wellington.

1960b Maori Settlement of New Zealand, *N.Z. Junior Encyclopædia*.

1960c Pacific Adzes and Migrations (a reply to Andrew Sharp), *JPS*, **69**(4).

DOUGLAS R. and J. M. STAVELEY

1960 Blood Groups in Maoris, *JPS*, **69**, 34-36.

GATHERCOLE, P. W.

1960 The Fifth Annual Conference of the New Zealand Archæological Association, *JPS*, **69**, 160-163.

GOLSON, JACK

1959a Culture Change in Prehistoric New Zealand, *Anthropology in the South Seas*, 29-74.

1959b The Fourth Annual Conference of the New Zealand Archæological Association, Rotorua, May 19th-21st, 1959, *JPS*, **68**, 150-152.

HOUSTON, JOHN

- 1958a A Taranaki *Wahaika*, *JPS*, **67**, 175.
- 1958b The Rahotu Prow, *JPS*, **67**, 351.
- 1959a Another Taranaki *Epa*, *JPS*, **68**, 141-142.
- 1959b A Taranaki Lintel, *JPS*, **68**, 239-240.

KEYES, I. W.

- 1958 Blackstone, *JPS*, **67**, 158-161.

LOCKERBIE, LESLIE

- 1959 From Moa-hunter to Classic Maori in Southern New Zealand, *Anthropology in the South Seas*, **75-110**.

PALMER, J. B.

- 1958 Tattoo in Transition, A Post-European Maori Tatting Kit, *JPS*, **67**, 387-393.

PHILLIPPS, W. J. and JURY, J. M.

- 1959 A Greenstone Talisman, *Kay-o-te-Rangi*, Glendower, Masterton, *JPS*, **68**, 142-143.

PULLAR, W. A.

- 1959 The Significance of Volcanic Ash Beds in Archæology, *JPS*, **68**, 8-11.

ROBERTSON, J. B. W.

- 1958 The Significance of New Zealand Tribal Tradition, *JPS*, **67**, 39-57.

SHARP, Andrew

- 1959 Maori Genealogies and the 'Fleet', *JPS*, **68**, 12-13.
- 1960 Pacific Adzes and Migrations, *JPS*, **69**, 39-42.

SKINNER, H. D.

- 1958 David Teviotdale (Obituary), *JPS*, **67**, 321-323.
- 1959 Murdering Beach, Collecting and Excavating, *JPS*, **68**, 219-238.

STAVELEY, J. M. and R. DOUGLAS

- 1958 Blood Groups in Maoris, *JPS*, **67**, 239-247.

SWARBRICK, H. A.

- 1958 An Old Maori Eel Pound, *JPS*, 175-176.

YALDWYN, J. C.

- 1959 Recent Name Changes in the Moa Genus *Dinornis*, *JPS*, **68**, 80-82.

Melanesia

RICHARD SHUTLER, JR.

Received 22 September 1960

GENERAL COMMENTS

We would like to bring to the attention of our readers Technical Paper No. 127, of the South Pacific Commission, 'Social Science Research in the Pacific Islands'. Part I lists individual research workers, a summary of their field studies, and the publications based on these studies. Part II deals with research organizations and their programmes that are concerned with the Pacific area. This comprehensive report, though exhaustive, is a valuable aid to those interested in this area.

I am grateful to Dr K. W. Galis, Bureau of Native Affairs, Netherlands New Guinea, for correspondence and information relating to Melanesia.

FIELD WORK AND RESEARCH

Mr Jack Golson, formerly senior lecturer in prehistory, Department of Anthropology, University of Auckland, now the holder of a Fellowship in Archæology at the Australian National University, Canberra, has very kindly given us a preliminary report on his Ile des Pins excavations.

Excavations at Ile des Pins. New Caledonia. December 1959–February 1960.

Personnel. Mr J. Golson; Mr W. R. Ambrose, technician in the Department of Anthropology, University of Auckland; Messers L. M. Groube and C. D. Smart, students in the department.

Sponsorship and Finance. The invitation to undertake work at the Ile des Pins came from the Société d'Études Mélanésiennes, Nouméa and finance was provided by the Société, by the New Caledonian government, and by the University of New Zealand research fund, to all of whom grateful thanks are due.

Objects and Results. 1. To conduct excavations at the coastal site near the village of Vao from which Lenormand 1948 (*Études Mélanésiennes* n.e. 3, 54–58) and Avias 1949 [*Jour. de la Société des Océanistes* 5(no. 5), 21], had reported finds of a highly distinctive type of decorated pottery. Pottery of the same type was discovered by the American expedition of Gifford and Shutler in 1952 at Site 13 on the west coast of the New Caledonian mainland and dated to about 800 B.C. (Gifford and Shutler 1956: *Archæological Excavations in New Caledonia*). Under excavation the Vao deposits produced identical pottery to that of Site 13 and in quantity. Unfortunately, however, the deposits were shallow (rarely over a metre deep) and disturbance of the upper levels by garden cultivation must be presumed. Though flakes in a wide variety of stone were found (including obsidian, allegedly not

present in New Caledonia), no polished stone artifacts of recognizable type were recovered: a disappointing circumstance since we badly need the evidence of associated diagnostic types like adzes to test theories of the similarity of this distinctive New Caledonian ware and the decorated pottery of Tonga. No other finds of Vao type pottery were made on the Ile des Pins: the pottery collected at other sites on the island resembles that reported by Gifford and Shutler from mainland sites other than Site 13. None of this pottery, of which relief decoration by nubbins is a distinctive element of the few decorated pieces, was found at the Vao site. These features of distribution raise interesting problems of date and pattern of settlement.

2. To study the tumuli of the island's central plateau: circular earth mounds up to 10 ft. high, present in extraordinary numbers (over 125 surveyed in a test area of 4 sq. miles). The survey demonstrated that theories of the patterned disposition of tumuli in lines, circles and the like were unfounded. Two main types of mound can be differentiated: a rare flat type and the numerous bowl-shaped type, some few examples of which approached conical form. Three test excavations were made.

BIBLIOGRAPHY

Books and Articles

ANON.

- 1958 *Kantoor Voor Bevolkingszaken*, Bijlage: Lijst van Rapporten en Publicaties, in berusting bij het Kantoor voor Bevolkingszaken (1952-1959).

GALIS, K. W.

- n.d. Nieuwe Brons-vondsten in het Sentani-district (Two newly discovered bronze axes in Dutch New Guinea), *NGS*, (in press).

GIRARD, M. B. FRANÇOISE

- 1956 Quelques plantes alimentaires et rituelles en usage chez les Buang, *Jour. d'Agriculture tropicale et de Botanique appliquée*, 4(56).
1957 Les peintures rupestres Buang, *JSO*, 13, December.

GROVES, MURRAY

- 1960 Motu Pottery, *JPS*, 69, 3-22.

HOLLYMAN, K. J.

- 1959 Polynesian Influence in New Caledonia, The Linguistic Aspect, *JPS*, 68, 357-389.

LANE, ROBERT B.

- 1956 The heathen communities of Southeast Pentecost, *JSO*, 12.

LANE, ROBERT B. and BARBARA S. LANE

- 1956 A reinterpretation of the 'anomalous' six-section marriage system, *SJA*, 12, 406-414.
1958 The evolution of Ambryon Kinship, *SJA*, 14, 107-135.

MACINTOSH, N. W. G., R. J. WALSH and O. KOOPTZOFF

- 1958 The blood groups of the native inhabitants of the Western Highlands of New Guinea, *O*, 28, 173-198.

MEGETT, M. J.

- 1957a The valleys of the Upper Wage and Lai Rivers, *O*, 27, 90-135.
1957b House-building among the Mae Enga, *O*, 27, 161-175.
1957c Mae Enga political organization, *Mankind*, 5.
1958a The Enga of the New Guinea Highlands: some preliminary observations, *O*, 28, 253-330.
1958b Ipi of the Porgera Valley, *O*, 28, 31-35.
1958c Mae Enga time-reckoning and calendar, *M*, 58(art. 87), 74-77.

POUWER, J.

1958 Radcliffe-Brown's ideas on joking relationships; tested by data from Mimika, *NGS*, 1.

SOLHEIM, WILHELM G., II.

1958 Some Potsherds from New Guinea, *JPS*, 67, 155-157.

1959 Edward Winslow Gifford 1887-1959, *JPS*, 68, 177-179.

HELD, G. J.: *The Papuas of Waropen*, reviewed by Ralph Bulmer in *JPS*, 67, 313-316, (1958).

WIRTZ, Paul: *Kunst und Kult des Sepik-Gebiets* and P. Van Emst: *In de Ban der Voorouders. Kunst uit Australisch Nieuw Guinea Collectie du. P. Wirtz*, reviewed by Leonhard Adam in *JPS*, 68, 397-398, (1959).

Book Note

WALTER NUTZ: *Eine Kulturanalyse von Kei; Beiträge zur vergleichenden Völkerkunde Ostindonesiens*. Düsseldorf, Michael Tritsch Verlag. 1959. 166 pp., 2 pls., 1 fig., 3 maps.

The Kei Islands are one of the small groups of islands of extreme eastern Indonesia. They are about 70 miles southwest of the nearest point in New Guinea and about 60 miles west of Aru. The purpose of the book is to examine the culture of Kei in relationship to the culture of the surrounding territories, to try and determine the origins of the culture.

The procedure followed is to examine three areas of material culture and selected portions of the social and religious life, and compare them to the surrounding areas. The material culture examined is: economic life concerned in farming and fishing; handicrafts concerned with boat building, basketry, and pottery; and the house. The areas with which Kei is specifically compared are Aru to the east, Timor to the west, and the Sula group to the north. West New Guinea was not considered as, according to Nutz, there are barely any cultural ties with Kei.

SUSAN BULMER: *Report*

A mimeographed report by Susan Bulmer has just reached me on some recent archaeological field work in the New Guinea Highlands. Details from this report will appear in the next *AP* issue. However, I would like to present one point on the prehistoric collections as told by Miss Bulmer. The area concerned is in the neighbourhood of the headwaters of the Wahgi River near Mt. Hagen. 'The axe-adzes are of particular interest because they are typologically distinct from the modern quadrangular-sectioned Highland axe . . . and because they appear to be made of different stone from that used in modern axes. . . . Many of them are lenticular or nearly lenticular in cross-section, a type widespread in coastal New Guinea and well-represented in museum collections, though not previously reported from the Highlands.' Ed.

Australia

FREDERICK D. MCCARTHY

Received 7 September 1960

This period has not been a very fruitful one in Australian archæology and ethnography. It has been marred by a tendency on the part of some writers to reiterate their own claims which have been rendered invalid by other published data and criticism which they ignore consistently. Such a practice can only lead to confusion in the minds of those interested in the subject, particularly in other countries.

Views on the antiquity of the aborigines range from the very recent of Abbie (1959) who considers that the migration from north to south on the continent may have taken only a few hundred years, to those of the archæologists, based on Carbon 14 datings, as being at least 12,000 years and most probably more. Tindale (1959) has pushed the Kartan culture back to 18,000 years.

The survey by Birdsell (1959) of the work done on the archæology, ethnography, ecology, physical anthropology and art of the aborigines during the period 1949 to 1957 is a most valuable summary of the advances in knowledge achieved during that period.

The need for more extensive work to be done on the archæology and material culture of Australia is stressed by Kabo (1959) and McCarthy (1959). The lack of typological data from Western Australia, Northern Territory, Central Australia, Queensland and other areas still makes it impossible to plot the distribution of any specialized type of stone implement, and in turn, from advancing theoretical knowledge of the spread of cultures and techniques. Much more detailed surface collecting and analyses of site collections needs to be done to rectify this situation; but until an active interest in Australian archæology is taken by the universities and museums in all States, particularly Western Australia and Queensland, the situation will remain unaltered. Papers on typology include that of Cooper (1959) who believes that the Kartan culture will have to be sub-divided in the future because of its long duration, and Mitchell (1960) who summarized the older views on the uses of stone implements and suggested that the geometrical microliths and Bondi points are really thick back scrapers whose use produces these unusual shapes.

The report on the excavations done by McCarthy and Setzler (1960) in Arnhem Land in 1948 is at last published. Four cultures, three of which are local ones, are noted for this region. They demonstrate links with the Eloueran and Bondaian cultures in eastern New South Wales, and with the Kimberleys of northwest Australia. No sites of any great age were located. The very wide range of 206 B.C. to A.D. 800 was established for the potsherds collected on Macassan camps.

Excavations in progress in eastern New South Wales, by McCarthy and party, have established a third culture, the earliest known for this region, which has been called the Capertian. It consists mainly of large chert slices, flakes and blades bearing either scraper, knife or dentated saw-working edges, with burins and hammer stones. The results of other excavations carried out by Mulvaney in Victoria, Gallus in a Nullarbor cavern, and McCarthy and Macintosh at Mootwingee, western New South Wales, have yet to be published.

Two papers by Tindale (1959, 1960) deal with many diverse aspects of the prehistory and ecology of the aborigines, and summarize his own ideas only. There are many interesting suggestions and theories put forward in these papers that will be debated for some years to come. His claim that the term Kartan that has been adopted for the uniface pebble implement culture in Australia, should be used also in Indonesia and south-east Asia on the grounds that Hoabinhian was given originally to a ground-edge culture, cannot be sustained. Hoabinhian I was given by the French to uniface pebble implements and Hoabinhian II or Bacsonian to the succeeding ground-edge period.

Interesting discoveries include the bones of *Diprotodon* beside a fire-place west of Port Augusta, South Australia (Cooper, 1959); the association of a wide range of geometrical microliths with the Pirrian culture at Fromm's Landing, lower Murray River (Mulvaney, 1959) for the first time, where the Carbon-14 dating for this period has been extended to 4850 ± 100 B.P.; and the recording of a shell fishhook from Gippsland, Victoria, the southernmost locality yet known (Massola, 1959).

An active interest continues to be taken in aboriginal art as evidence by the Memoir (Lommel, 1959) issued by the Staatliches Museum für Völkerkunde on the art of Australia, and the many papers describing new sites of cave paintings and rock engravings. Among these McCarthy has adopted new lines of approach in his studies of the superimpositions of styles, colours and subjects in the paintings, definite results being obtained at Conjola, eastern New South Wales (1959) where four periods were distinguished, in western Arnhem Land (1960) where three periods were defined, and on Groote and Chasm islands (1960) where several periods were shown to exist. His tabular analyses of frequencies of styles, colours and subjects is an attempt to ascertain the dominant traits in different series of rock art, particularly of the relative importance of the commoner food animals within the framework of ritual inspiration. The first record of paintings in Tasmania, that of stencils and other figures, was published by De Teliga and Bryden (1959).

BIBLIOGRAPHY

ABBIE, A. A.

1960 Curr's Views on how the Aborigines peopled Australia, *AJS*, 22, 399-404.

The author advances arguments in support of Curr's claim in 1886 that the aborigines landed at Camden Haven on the north-west coast of Australia and spread in three directions—eastern, western, and central groups—across the continent. He is of the opinion that artifacts are not helpful in elucidating this problem. The data from blood grouping studies, in his opinion, supports Curr's theory, as does circumcision which Abbie believes to have been an original trait brought by the Australians but was abandoned by tribes in part of eastern and western Australia. He is of the opinion that the whole process of migration on the continent may not have taken more than a few hundred years.

ANON.

1959a *National Art Gallery of New South Wales, Purchases and Acquisitions for*. 1959.

Nos. 144-211 comprise a collection of grave-posts and bark baskets from Melville Island, and an extensive collection of bark paintings illustrating the Djunggawul and Laintjung mythologies, from Yirrkalala, north-eastern Arnhem Land, presented by Dr S. D. Scougall. Detailed explanations of the bark paintings are given.

1959b Aboriginal Bora Field. *Dawn*, 18, October.

Records cave paintings extending for 150 yards at the base of a cliff, and thirty cairns of stones, on the north coast of New South Wales.

BAKER, G.

1959 Tektites, *Mem. Nat. Mus. Vict.*, 23, 313 pp.

A detailed petrological description of tektites, in the introduction to which the claim by some writers that the scattered distribution in Australia of tektites is due to the aborigines is discounted (pp. 21-23).

BARNES, J. S.

1960 Social Anthropology, The University and the Public, *AJS*, 22, 371-77.

Discusses the need for co-operation between museums and universities, and for museums to display objects in relation to their social setting with the help, if necessary, of the social anthropologist. The author points out that the field of work of the museum ethnographer is comparative technology, regional distribution, material culture and archaeology, as compared with social relations as the field of the social anthropologist.

BERNDT, R. M.

1959 Two Love Magic Bullroarers from Laverton, Western Australia, *Mankind*, 5, 364.

A pair of bullroarers in the shape of an aeroplane propeller used in love magic, and said to have come from north of Jigalong and Wiluna. A modern innovation in magic objects.

CLELAND, J. B. and N. B. TINDALE

1959 The Native Names and Uses of Plants at Haast Bluff, Central Australia, *Tr. Roy. Soc. S. Aust.*, 82, 123-40.

Describes the general environment which consists of mulga plains, sand ridges, watercourses, mountains and hills; classifies the plants under ten headings under each of which the species are listed with scientific and native names, and uses. A special section is devoted to the Solanums of Central Australia.

COOPER, H. M.

1959 Large Archaeological Stone Implements from Hallett Cove, South Australia, *Tr. Roy. Soc. S. Aust.*, 82, 55-60.

A description of uniface pebble implements from a new area of a site formerly described. Hammer stones and a few other implements are included. The author also records the discovery of a fireplace, with twelve teeth of a small *Diprotodon* and fragmentary bones, west of Port Augusta, associated with which were large semi-uniface pebble implements. He suggests that the Kertan culture in South Australia, owing to its long duration, will ultimately have to be sub-divided into several periods.

BIRDSELL, J. B.

1959 Australia, No. 1, *COWA Survey and Bibliography*, Area 22.

Summary and bibliography of the papers and work done on the archaeology, ethnography, ecology, art and physical anthropology of the Australian Aborigines from 1949 to 1957.

ELKIN, A. P.

1959a A Darwin Centenary and Highlights of Field Work in Australia, *Mankind*, 5, 321-33.

Consists of part 1, Centenary of the *Origin of Species*; 2, Sidelights and highlights of field work in Australia before 1926, emphasizing the great value of Spencer and Gillen's work in Central Australia to Australian anthropology, referring also to other work published; 3, The Green Light of 1926, the formation of the Department of Anthropology at the University of Sydney, with an outline of field work carried out by its graduates and visiting scholars and to be carried out in the future both in the field and in theoretical studies.

1959 A New Anthropological Society, *O*, 29, 227-30.

History of the formation of anthropological societies in Australia.

EMORY, K. P. and Y. H. SINOTO

- 1959 *Radiocarbon Dates Significant for Pacific Anthropology*, Pac. Sci. Assoc., Suppl. to *Informat. Bull.*, 2(3).

Includes a list of dates recorded in Australia.

FISCH, P.

- 1959 On the Roof of Australia, *Vict. Nat.*, 76, 62.

Ground-edge axes collected in Deadhorse Gap, Kosciusko plateau.

FRASER, D. F.

- 1959 The Re-discovery of a Unique Figure from Torres Strait. *M.*, 59, 88.

Tortoise shell figures of a mask and of a boy, originally described by Jukes in 1847, found in the British Museum.

GOODALE, J. C.

- 1959 The Tiwi Dance for the Dead, *Expedition*, 2(1), 3-13.

Describes the making and painting of a set of grave-posts on Melville island, the *pukamarni* dances and songs associated with the burial ceremony, and the grave.

GODLEWSKI, A. L.

- 1959 Anthropological Structure of the Original Population of New Guinea, Australia and Melanesia, *Polska Akad. Nauk. Zaklad Anthropol.*, 12, 1-66.

Contains a section on Australia in which Australoid, Nigrific, Mediterranean, Negroid and Oriental components are distinguished and arranged chronologically.

HOUSE, J.

- 1959 Tiwi Burial Poles as Sculpture, *Expedition*, 2(1), 14-16.

Discusses the sculptural values of Melville island grave-posts.

KABO, V.

- 1959 Some Problems concerning the Culture of Australian Aborigines. *Acad. Sci. URSS., Sect. Sci. Hist., Revue d'Hist. Civilis. Mondiale*, 6, 65-80.

Stresses the need for a proper survey to be made of the tools used by the aborigines to win their sustenance, because tools determine the organization of labour and through the latter exert an influence on the social structure. An important gap is the absence of an integral, comprehensive conception of local differences in the economy and material culture of Australian tribes.

KOPPERS, W.

- 1958 *Autour du Problème: Ethnologie et Histoire Nouvelle, Miscellanea Paul Rivet (Sobretiro)*, Mexico, 1958.

A discussion of current analyses of the composition of Australian material culture, of the work of the Vienna School and McCarthy and their bearing on the concept of the world unity of cultures.

LIA, M.

- 1959 Operation Stone Age, *Aust. Outdoors*, June, 42-3.

Describes stone implements collected on surface sites in western Victoria.

LOMME, A. and K.

- 1959 *Die Kunst des Fünften Erdteils Australien*. Staatliches Museum für Volkerkunde, München, 183 pp.

A comprehensive and beautifully illustrated account of Australian aboriginal art recorded by the authors on several field trips.

MCCARTHY, F. D.

- 1959a Methods and Scope of Australian Archaeology, *Mankind*, 5, 297-316.

A general account of methods of excavation of rock shelter and open midden sites; the recording of rock engravings and paintings by photography and the drawing of scale charts, and by the use of casts, rubbings and tracings; the recordings of stone arrangements; methods of studying superimpositions in cave paintings and rock engravings; discusses the preservation of aboriginal relics *in situ*; includes a brief description of the known prehistoric cultures of Australia, outlines work for the non-professional and professional archaeologist in Australia; suggests that excavations and other recording work be undertaken by teams of non-professionals co-operating with professional archaeologists.

- 1959b Rock Engravings of the Sydney-Hawkesbury District, Part ii. Some Important Ritual Groups in the County of Cumberland, *Rec. Aust. Mus.*, **24**, 203-16.

Describes groups of outline rock engravings at Mt. Kuringgai, Waitara, Maroota, and Cattai, in which some important figures of culture heroes are included.

- 1959c Cave Art of the Conjola District, New South Wales, *Rec. Aust. Mus.*, **24**, 191-202.

Describes stencils and drawings (in dry pigment) in five rock shelters, in which stencil, red, black and bichrome periods are defined from a study of the superimpositions, the first study of its kind made in south-eastern Australia. A new technique, that of abrasion within a charcoal outline, is described, and the abrading implement recorded. Implements of the Bondaian culture excavated in the floor of one shelter are described, and errors in Etheridge's description of several of these sites in 1907 are corrected.

- 1959d *The Boomerang*. Australian Museum leaflet, 48.

- 1959e *The Aboriginal Relics of New South Wales*, Australian Museum Leaflet, 47.

A brief description of rock engravings, rock paintings, carved trees, stone arrangements, graves and stone implements workshops is given, with methods of conservation, with the aim of enlisting interest in, and support for, their preservation.

- 1960a The Cave Paintings of Groote Eylandt and Chasm Island, *Rec. Amer. Aust. Sci. Exp. Arnhem Land*, **2**, 297-414. (1948).

Recordings of forty-five rock shelters of paintings, with analyses of colours, styles and subjects, whose frequencies are tabulated. A study of the superimpositions resulted in the establishment of an early dark red phase, and a later bright red phase, on Groote and Chasm islands, and a similar study at Oenpelli in western Arnhem Land yielded a sequence of early outline and silhouette figures, followed by the Mimi stick-figure style, and then by the X-ray art. The affinities of the art are discussed, and a comparison of the subjects and styles in these paintings is made with those in the Sydney-Hawkesbury district rock engravings.

- 1960b The String Figures of Yirrkalla. *Rec. Amer. Aust. Sci. Exp. Arnhem Land*, **2**, 415-511. (1948).

Describes and figures 168 figures with techniques, and 57 for which the techniques were not recorded. The study includes a description of the string and its socio-magical implications, the myth of origin of string figure making and the association of the latter with the Wawalak sisters saga, the nomenclature, naming, and subjects of the figures, their Oceanic affinities, and discusses the possibility of the introduction of this pastime into Australia both through Cape York and Arnhem Land.

MCCARTHY, F. D. and MISS M. McARTHUR

- 1960 The Food Quest and the Time Factor in Aboriginal Economic Life. *Rec. Amer. Aust. Sci. Exp. Arnhem Land*, **2**, 145-94. (1948).

A diary of the time devoted by hunting and fishing groups of aborigines in Arnhem Land to material culture, hunting, fishing and collecting plant foods, with a description of the methods involved, and a quantitative survey of the food collected, consumed and wasted.

MCCARTHY, F. D. and F. M. SETZLER

- 1960 The Archaeology of Arnhem Land. *Rec. Amer. Aust. Sci. Exp. Arnhem Land*, **2**, 215-296. (1948).

Describes the results of the excavation of ten rock shelter floors at Oenpelli, kitchen middens at Milingimbi and Port Bradshaw, and a cave floor at Port Bradshaw. The Pirrian culture is recorded at Yirrkalla, and three new cultures, the Oenpellian, Milingimbian and Kimberleyan, are established for northern Australia. A section is devoted to the excavation of Macassan graves on Winchelsea island, and the investigation of Macassan camps in north-eastern Arnhem Land. The potsherds collected were found by Mrs Aga-Oglu to range from 206 B.C. to A.D. 800.

MACK, G.

- 1958 Settlement and the Aborigines of Australia and Tasmania, *Pr. Roy. Soc. Qld.*, **70**, 1-10.

Supports the view, *inter alia*, that the extinct Tasmanians once occupied the mainland of Australia.

MASSOLA, A.

- 1959a The Native Water Wells of Beaumaris and Black Rock, *Vict. Nat.*, **76**, 121-26.

Describes 7 sites where wells were either made in rock by the aborigines, or were natural rock holes enlarged by them. Other wells used by whites and Maoris are mentioned.

- 1959b The Wooden Shovels of the Aborigines of South-east Australia, *Mankind*, **5**, 289-96.

The uses and distribution of the shovels, and list of the 17 known specimens in Australian collections.

1959c Some Unusual Stone Artifacts, *Vict. Nat.*, **76**, 8-10.

Describes double-edged ground-edge axes, a fishhook file from east Gippsland, and perforated stones from western Victoria.

1960 Two New Painted Shelters at Glen Isle, *Vict. Nat.*, **76**, 234-35.

Describes red paintings of 17 bird and 1 kangaroo tracks in one shelter, and of a man and indeterminate figure in the second site.

MITCHELL, S. R.

1960 The Woodworking Tools of the Australian Aborigines, *JRAL*, **89**, 191-99.

The author discusses his views, and evidence that supports them, of the uses of various kinds of implements, including the ground-edge axe, Kadjo, horsehoof, Arapia, unchipped blocks of stone, and Worimi; the uses of cutting, planing, adzing and scraping tools including unused flakes, the Wonkonguru Kalara scraper, and the Tula adze. He supports Towle's opinion that the Elouera is a scraper used on the thicker margin, and suggests that geometrical microliths and Bondi Points were used in a similar manner so that those collected are discarded implements not specialized types.

MULVANEY, D. J.

1959a Dating of Australia's Prehistory, *Nature*. Suppl., Sept. 19, p. 918.

Records the association of geometrical microliths with the Pirriian culture on the lower Murray River, at the Fromm's Landing site, this being the first series of geometrics excavated in an Australian site; Carbon-14 datings of 3240 ± 80 (B.P.) years at level 4, 6 feet from the surface, with crude implements, and 4850 ± 100 (B.P.) years, with Muduk bone points, Pirri, geometrical microliths in level 10, 12 feet from the surface, are recorded.

1959b What Valley Hunters ate 5,000 years ago! *Riverlander*, Sept., 8, 36.

A short account of the Fromm's Landing excavation.

1960 Recent Archaeological Excavations in Australia, *JPS*, **69**, 151-153.

OLERMANN, G.

1959 Holz-und Steinsetzungen in Australien, *Paideuma*, **7**, 99-114.

Stone arrangements and their function in northwestern Australia.

RIDE, W. D. L.

1959 A Museum Expedition to the Hammersley Range, *Aust. Mus. Mag.*, **13**, 94-98.

Records a previously unknown site of pecked rock engravings beside Black Hill Pool, at the foot of Mt. Herbert, Western Australia.

SCHUSTER, C.

1959 Genealogical Patterns in the Old and New Worlds, *Rev. Mus. Paul. N. S.*, 1956-8, pp. 123.

Discusses Australian aboriginal Bora initiation designs (pp. 79-82), sign language, cannibalism, and naming of relatives by body parts (pp. 95-99).

SIEMON, R.

1959 Cave Art in the Auburn Ranges, *W*, **22**, 28-9.

Describes red stencils of human hands, shields, boomerangs, stone axes and spear throwers in two rock shelters near the Rocky Bar River, west of Bundaberg, Queensland.

STANNER, W. E. H.

1960 Aboriginal Rock Paintings, *Etruscan*, **9**, 18-23.

Describes in brief a series of previously unknown cave paintings on the Fitzmaurice River in the Kimberleys, Western Australia, some of which are reproduced in colour.

STOKOE, L.

1959 Aboriginal Rock Engravings at Yarlalweelor, Western Australia, *Anthropos*, **54**, 67.

Describes three sites of pecked rock engravings at Red Rock, Yadyarra and Divide Outcrop.

TELIGA, S. DE and W. BRYDEN

1959 A note on Tasmanian Aboriginal Drawings. *Pap. Pr. Roy. Soc. Tasm.*, **92**, 191.

The occurrence of human hand stencils and some indeterminate figures on the Derwent River, in a rock shelter, is recorded from the first known site of cave painting in Tasmania.

TINDALE, N. B.

1959a Ecology of Primitive Aboriginal Man in Australia. *Monogr. Biol.*, **8**, 36-51.

Discusses the coming of man to Australia well before the beginning of Recent Time, and supports the view that aboriginal culture has been enriched by outside influence; believes that firing the bush and grasslands by aboriginal hunters has had an adverse effect upon the vegetation cover of the land; opposes the Great Arid theory of Crocker and Wood and supports the view of Taylor that there has been a north and south retreat of the arid belt which played a significant role in the climatic history of the continent; claims that the dingo did not come with the Tasmanoid Tartangan or Kartan culture bearers but accompanied the Australoids, and further that the introduction of the dingo was the deciding factor in the extinction of the giant marsupials; myths about the latter are discussed. The author believes that late Pleistocene man in Australia tended to be a nut and seed gatherer, and that Pirrian and later cultures were the grain milling and grass-seed bread makers.

1959b Totemic Beliefs in the Western Desert of Australia, part 1: Women Who Became Pleiades. *Rec. S. Aust. Mus.*, **13**, 305-32.

Records totemic beliefs of the Mandinjira, Pindiini, Pitjandjara, Ngadadjara and Jangkundjara tribes, and gives a preliminary description of the Owalinja cave paintings in the northern Musgrave range, where Kankarungkara, Papa and associated totem rites were performed by the Jangkundjara tribes.

1960 Man of the Hunting Age. *Colorado Quart.*, **8**, 229-45.

The author claims that the multi-purpose implements and weapons of the Australian aborigines betoken a high development of material culture; he links the Kartan culture in Australia with the Niah Cave (Borneo) pebble choppers and suggests Kartan as a cultural term for this culture in Australia, Indonesia and south-east Asia. In Australia he believes the Barrineans were the physical type associated with the Kartan and Tartangan cultures; the Murrayians with projectile points and discoidal adzes, and the Carpentarians with edge-ground implements. He suggests basic prehistoric cultural relationships between Asia, Oceania and Australia on one hand, and between Asia and the Americas on the other hand. Claims made are that many American and Asiatic implements were resin, gum or mastic hafted, and that Yuma and Folsom points were rubbed on the edge for pressure chipping in the same way as were the Kimberley biface points in Australia. The Asiatic distribution of the Folsom point is discussed. He links the Eskimo Ulu knife with the Tartangan Jimari knife in Australia, and discusses the areas of tribal territories and the average density of tribal population in Australia.

WILLCOX, A. R.

1959 Australian and South African Rock Art compared. *S. Afr. Arch. Bull.*, **55**, 97-8.

Comments on similarities between rock engravings and paintings in the two continents in a review of *Australian Aboriginal Rock Art* by F. D. McCarthy.