I

Eastern Asia and Oceania

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CONGRESSES, PAST AND FUTURE

The publication of Congress Proceedings is proving more and more difficult, particularly when they are as voluminous as those of the last three Pacific Science Congresses. It is unlikely that more papers on Archaeology or Physical Anthropology, which were read at the 8th Pacific Science Congress, will appear in the series as originally planned. However by arrangement with Professor Beyer, Asian Perspectives hopes to publish a number of those papers. This may also be the case of some of the still unpublished papers presented at the 2nd Congress of Far Eastern Prehistorians held in Manila in 1934.

In reply to an inquiry concerning the archaeological papers read at the 9th Pacific Science Congress held in Bangkok in 1957, Dr Charng Ratanarat, the Secretary-General of that Congress wrote on 9 April 1962: ‘. . . The archaeology papers will be included in Volume 3—Anthropology—of the Proceedings of the Ninth Pacific Science Congress, under the heading of: 1. Check-stamped pottery in northern and eastern Asia by Chester S. Chard. 2. The Shimotabaru shell mound on the Hateruma Island [Ryūkyū] by T. Kanaseki and N. Kokubu. 3. Origin of the paddy-field culture in ancient Japan by Kenjiro Ichikawa. 4. The archaeological significance of the jar-burial in Neolithic Japan by Teijiro Mori. 5. A Toalian-like industry discovered in Japan by J. Maringer. 6. Stone daggers found in Korea by Kyōichi Arimitsu. 7. Six types of stone celts and the prehistoric culture of China by Shih Chang-ju. 8. A jar-burial stone tool assemblage from Southern Luzon by Robert F. Fox and A. Evangelista. 9. A proposed pottery typology for use in Southeast Asia and Oceania by W. G. Solheim II. 10. Evidence of some prehistoric migrations in Thailand by Chin You-di. 11. Niah archaeology by Tom Harrisson. This volume is now being edited but we do not know for sure when it will be finished.’

Papers presented at the 10th Pacific Science Congress in Hawaii in 1961 are appearing in many different publications (see AP, 5[2]). The papers of the symposium on ‘Japanese Culture: Its Development and Characteristics’ have appeared as Viking Fund Publication in Anthropology, 34, edited by Robert J. Smith and Richard K. Beardsley (1962). Among them are papers on the origins of Japanese culture by Ishida, Yawata, and Egami (AP, 5[1], 2). The paper by Carlyle S. Smith ‘An Outline of Easter Island Archaeology’ which was left out, by inadvertence, in the Proceedings Issue of AP, 5(2), appears in this issue, pp. 239–243

Preparations for the 11th Pacific Science Congress to be held in Japan are underway. The Standing Committee on Anthropology and Social Sciences headed by Dr J. van Baal is receiving suggestions for the symposia and is at the disposition
for consultation if asked by the Japanese organizing committee. The Subcommittee on Archaeology is headed by Wilhelm G. Solheim II, with Ichiro Yawata and Erika Kaneko as other members.

One congress and one meeting which was held in 1962 included in their programmes papers of interest to Far Eastern archaeologists. The Japanese Society of Ethnology held its first annual meeting at Meiji University from 10 to 11 May. Among the papers presented here were: Takakura, or the traditional type of storehouse in Amami Islands, by Takao Nakamura; Fishing in Sado Island, Niigata Prefecture, by Hiroshi Ogawa; Ishiburo (bathtub made of stone) and kessai (purification ceremony), by Miyashizu Hafuri; The long-drum of the Wa in Yunnan, South China, by Taro Obayashi; A note on the origin of the Dongson culture, by Tadashi Chikamori; Rice in Indochina, by Hideo Hamada; The formative culture on the east slope of the Andes, by Seiichi Izumi; On the protruding tongue by Seishi Ito. The symposium on Friday, May 11, was on Okinawa, and among papers of particular archaeological interest were: Early agriculture, by Naoichi Kokubu; Types of houses, by Hisaji Sugimoto; and Comparative studies among China, Japan and Okinawa, by Kenjiro Ichikawa.

The VIth International Congress of Prehistoric and Protohistoric Sciences was held in Rome from the 29 August to 3 September; the Far-Eastern Prehistory Association was officially represented by Wilhelm G. Solheim II. The Congress was well organized with the meetings taking place at the University of Rome in the building of the Faculty of Letters and Philosophy. The excursions in and around Rome were delightful. The programme was divided into eight sections, only one of which was of specific interest to Far Eastern archaeology. Section VI on the 'Prehistory and Protohistory of the Extra-European Continents' had seven papers scheduled and two added papers on Asian areas. They were as follows:

No. 224. Sankalia H. D., An up-to-date survey of pre- and proto-history in India.


No. 227. Tsunoda B., Early primeval culture recently revealed in Japan.

No. 228. Maringer J., Die Dolmen Japans und Südkoreas im Lichte einer alten chinesischen Mythe.


No. 230. Tolstoy P., Bark cloth technology and pre-Colombian contacts between Southeast Asia and Mesoamerica.

The two additional papers were: S. P. Gupta, A new light on post-Harrapan chalcolithic culture and Indian copper hardes; R. V. Joshi, Middle Stone Age in India. Unfortunately Cipriani and Tsunoda were not present to read their papers. Publication of the Proceedings is in process and moving along at an exemplary speed.

The Far-Eastern Prehistory Association, the International Conference of South-East Asian Historians and the International Association of Historians of Asia are
participating in an International Conference on Asian History. This will be held at the University of Hong Kong from 30 August to 5 September 1964. From the first announcement of the conference we give the following extract:

The conference will be organized in sections covering: East Asia, Southeast Asia, South Asia, and Central Asia. The periods to be covered in each section will be: Prehistoric, Classical and Pre-modern (to c. 1500), Early Modern (c. 1500–c. 1800), and Modern (c. 1800–1945). There will be a number of combined sessions for discussion of general topics and problems concerning methodology, periodization and historiography. Papers accepted for discussion will be distributed beforehand to all those registering as members of the conference. The organizing committee aims at the widest possible participation in this conference of historians [and prehistorians] interested in the study and writing of Asian history [and/or prehistory]. Those wishing to submit a paper for discussion at the conference should do so as soon as possible and in any event not later than the end of 1963. Papers must be in English or French, and should not exceed 5,000 words in length. Each paper must be accompanied by an Abstract not exceeding 500 words in length. Papers and Abstracts must be typewritten in double-spacing, and three copies of each must be provided. If a large number of papers is submitted, a selection of those to be discussed will be made by the organizing committee. As papers will have been distributed beforehand they will not be read at the conference, in order that most of the time available may be devoted to group discussion. It is intended to publish as soon as possible after the conference a wide selection of the papers accepted. Further information on the programme of the conference will be sent to all those who register as members. All letters should be addressed to: The Conference Secretary, Department of History, University of Hong Kong, Hong Kong.

The two organizations of historians held a similar Conference in Taipei, Taiwan, in October 1962, at which several papers of archaeological interest were presented.

With the participation of the Far-Eastern Prehistory Association in the 1964 Conference, we may expect a larger number of archaeological papers. At the conference there will be one or more business meetings of the Far-Eastern Prehistory Association. We hope that all members of the F-EPH Association will try to be present and we look forward to hearing many valuable papers.

NEW DISCOVERIES

Field work planned within the Pacific Area Archaeological Programme is already resulting in major new discoveries (see AP, 5[1], Oceania, 71–78). A news release of the Bishop Museum says: 'In Tahiti a Bishop Museum expedition, headed by Dr Kenneth P. Emory and his assistant Dr Yoshihiko H. Sinoto, has unearthed for the first time stone adze blades, ornaments, and fishhooks belonging to an early period of Tahitian history not previously known to scientists. The forms of these artifacts are identical with those belonging to the first Polynesian settlers of New Zealand, but differ from those of the same types of artifacts which typify the earliest known period of Hawaiian culture. The early Hawaiian forms are most similar to those representative of early times in the Marquesas.

'The principal implication of the Tahitian discovery is that it now appears likely that the Hawaiian Islands were first settled from the Marquesas, rather than from Tahiti as had been previously theorized. However, Hawaiian archaeology has revealed that about the 12th century there was a change in the forms of Hawaiian
fishhooks to forms identical with Tahitian hooks. Because of this and other similarities, there can be no doubt that there was a strong Tahitian influence upon Hawaiian culture. But it would seem now that this has been due to contact between the two cultures at a later period of their histories. Thus it seems that Hawaiian culture originated in central East Polynesia with Polynesians from the Marquesas reaching the Hawaiian archipelago first, followed some centuries later by powerful Polynesian chiefs from the Society Islands.

'This discovery made by Bishop Museum scientists consists of an extended burial of an adult male. Buried with him were three adzes, five pearl-shell bonito fishhooks and three whale tooth pendants. The method of burial corresponds to that practised by the early Maoris of New Zealand. The peculiarly-shaped whale tooth pendants are identical with the early Maori form, and could easily have evolved into the unique whale tooth pendant of the Hawaiian. The bonito hooks are not only identical in form with those of the early Maori but also with prehistoric fishhooks which have been discovered on Fanning Atoll, 1,000 miles south of Hawaii.'

A new group of important sites was made in the Philippines in 1962. A brief résumé of this is presented in the section on Southeast Asia, pp. 46-47.

FURTHER PLANS FOR Asian Perspectives

In this issue of Asian Perspectives for the first time appears a section on Madagascar by Pierre Vérin; it will appear regularly in future issues. This is the last issue in which Professor Rudolph and Dr Suggs present their respective sections on the China Mainland and Polynesia. Dr Kwang-chih Chang will take over for the China Mainland while continuing with Formosa. Dr Yoshihiko Sinoto will assume the responsibility for Polynesia. Rather extensive reorganization of the China Mainland section is anticipated. It is impossible for one person to cover all the archaeological work now being done on the Mainland, and we still have not decided how to cover best the immense amount of work going on there.

Beginning with Volume VII three new sections will appear on India, Pakistan, and Ceylon. The regional editor for India will be Shri B. B. Lal, for Pakistan Dr A. H. Dani, and for Ceylon P. E. P. Deraniyagala. The enlargement of our field to include India comes already in this volume with two articles on India by A. P. Khatri. The Japanese section is under review (see AP, 5, p. 24); possibly it may be discontinued and replaced by a yearly supplement in English of Archaeologia Japonica, the annual report of the Japanese Archæologists Association, with whom preliminary arrangements have been made for the use of its materials and their translation. What is still needed are the funds to carry out the project. This supplement of the Japanese material will run to 150 to 200 pages, and will sell for about US$2 to F-EPH Assn members and to the subscribers of AP, but somewhat more to the public. At the next first business meeting of the F-EPH Association, probably in 1964 in Hong Kong, the question will be put as to whether the membership dues and subscription rates should be increased to include this Japanese Annual Supplement or whether it should be sold as a separate publication.
Book reviewing in *Asian Perspectives* is still haphazard, and the number of books received for review have been accumulating. By the time Vol. VII goes to press we expect to have a Book Review editor to run this section. In the meantime here follows brief notes of some new publications, new journals, and of books—peripheral to archaeology but of related interest and value.

The Pacific Scientific Information Center at the Bishop Museum, Honolulu 17, Hawaii, in 1962 issued a small pamphlet titled *Pacific Anthropologists 1962*. It gives the names and addresses of scientists interested in Anthropology of the Pacific—defined as Polynesia, Micronesia, Melanesia, and New Guinea, and also the subjects of their special interest. Anyone who comes into this classification and has not received the pamphlet should write to the Information Center for a copy.

Volume I, No. 1 of *Oceanic Linguistics* appeared in 1962. Much of what follows is taken from its first page. It was created at the request of the Panel on Research Needs in Pacific Languages of the Tenth Pacific Science Congress. Its purpose is to provide competent information and better communication across national boundaries on current research bearing on the languages of the Oceanic area.

‘Oceanic’ languages for the purposes of the periodical are defined as including Malaya-Polynesian (Austronesian), Papuan, and Australian languages.

*Oceanic Linguistics* will be published twice a year. The materials published will consist of: (1) articles and (2) news of current research, publications, and other pertinent activities. The articles will be in the nature of surveys, especially of the state of research in a given field of interest to Oceanic Linguistics.

Articles for publication, news items, and subscriptions should be sent to: George W. Grace, Department of Anthropology, Southern Illinois University, Carbondale, Illinois. The subscription rate is $1.25 per year. Remittance should be made payable to *Oceanic Linguistics*.

The first issue has a report on the linguistic symposia held at the Tenth Pacific Science Congress with abstracts of the papers presented; brief reports on individual research activities; and current bibliography.


Arctic Anthropology will appear at irregular intervals. Subscription price US$4.00 per volume (two numbers). Subscriptions, accompanied by remittance, should be addressed to the Editor, c/o Department of Anthropology, University of Wisconsin, Madison 6, Wisconsin, U.S.A. Exchanges may be arranged.


This volume of AP carries an article on Vietnamese music (On the origins of the traditional Vietnamese music, pp. 145–162) and on page 32 a notice of Percival R. Kirby’s article on musical influence from Indonesia on Central African music.

Further information of a musical nature is to be found in Vol. II, No. 9 (1962) of Korea Journal, which has several articles on Korean music and musical instruments, ancient and modern.

The Hong Kong University Press published in 1962 an Outline Map of Sinkiang Territories within China drawn by Prof. Herold Wiens, scale 1/3,000,000. It is available for HK$0.60 from the Hong Kong University Press, University of Hong Kong, Hong Kong.

The New Zealand Archaeological Association Newsletter

This publication deserves wide circulation and not simply passing on your copy to someone else, for each issue is of permanent value and the Newsletter is very dependent on subscription for its continuation and further expansion. Persons and institutions with an interest in Polynesian or Oceanic archaeology or prehistory should become subscribers.

A rapid classification of the contents of Vol. V (1962) divides the articles into 12 categories which, in descending order of the number of articles per class, are as follows: brief site reports (18), general articles (11), book reviews (8), survey reports (6), dating (6), archaeological method (3), artifacts (3), cave art (3), Polynesia outside of New Zealand (2), the Moa (2), archaeological theory (1), and bibliography (1). The site reports vary from a half-page description of three sites (David Harrowfield, Three Pa in inland Canterbury, 5, 11), to a twelve-page report (W. Ambrose, Further investigations at Kauri Point, Katikati, 5, 56–67), which is a supplement
to a much longer report in the previous volume (J. Golson, Investigations at Kauri Point, Katikati, *NZAAN*, 4[1961], 13–41). Many of these reports include diagrams, cross-sections, and line-drawings. The last two numbers of Volume 5 contain four pages of plates.

The articles of a general nature are reports of activity of various archaeological societies and papers presented at the Christchurch Conference held in 1962. Volume 5, No. 4, is the Conference Number and contains a number of papers of major importance to rapidly changing New Zealand archaeology. Two general articles of particular interest in the issue are ‘Aspects of cultural succession in Canterbury-Marlborough’ by Roger Duff (pp. 205–209) and ‘Cultural sequence in the Auckland Province’ by R. Green and W. Shawcross (pp. 210–220). These two articles demonstrate clearly that classifications are only means to an end and should be changed when a specific end is reached, and when the quantity and quality of data have changed more ambitious ends may be sought. New Zealand archaeology has been advancing so rapidly that this is the third classificatory system to be introduced within a ten-year period. While agreement is far from complete on the new system to be used, it is only a question of working out the details.

A check on the accuracy of carbon-14 dates in New Zealand was made by taking samples of wood dated by dendrochronology. An anomaly was discovered, ‘... the effect of which will be to reduce the age of samples from before about 1,650 A.D. and to increase their age after this date’ (W. Ambrose, Accuracy in C-14 dating, 5, 19–20). Research on obsidian dating is reported upon by Roger Green (Obsidian, its application to archaeology, 5, 8–16; and Obsidian dating: Preliminary results, with W. Ambrose, 5, 247–248). In one of the articles, classified as archaeological method, Colin D. Smart presents, among other valuable suggestions, a technique for analysis of quantitative samples which appears to be both accurate and time-saving (Midden recording and sampling in the Waikanae region, 5, 160–169). In the same issue (No. 3) appears a ‘Bibliography of New Zealand Archaeology from June 1961’ (200–202).

Inquiries about the *Newsletter* should be sent to the editor: A. Buist, Box 147, Hawera, New Zealand.

**Book Reviews**


Not of importance.


Covering India, Southeast Asia, China, and Japan, this book is of value to an archaeologist who is going to one of those countries for the first time. The archaeologist should concern himself with the truly geographical portion of the book and skip the short chapters on peoples, races, and modes of living (50–58) and historical development (78–88). These subjects are treated so briefly that they say virtually nothing, or so vaguely that you can hardly disagree. One map (Fig. 12) with which one can disagree shows the historical centres of national growth and the lines of cultural and political transmission. In the map the Polynesian ‘centre of national growth’ is indicated just north of New Guinea with the ‘lines of cultural and political transmission’ pointing from there to the west, west and then north, and north, just 180 degrees out of phase.


This would be a useful manual in a bone laboratory for archaeologists and physical anthropologists, but not as a text; it is insufficient by itself to an archaeologist for his training.
Northeast Asia

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FIELD WORK

The COWA Survey for Area 18 (Northern Asia), No. 3, gives a summary of field researches in Siberia during the years 1959–61 based on information available as of the summer of 1962. (Published by the Council for Old World Archaeology, Inc., 11 Divinity Avenue, Cambridge 38, Mass.)

The first Soviet radiocarbon dates for Siberian sites will be found in Arctic Anthropology, 1962, 1(1): 84–86 (Address: c/o Department of Anthropology, University of Wisconsin, Madison 6, Wisconsin).

According to the available publications and correspondence, the principal field activities carried out in our area during 1960–61 were the following (information compiled by Barbara P. Merbs):

The Tuva archaeological-ethnographical expedition, headed by L. P. Potapov, excavated kurgans dating to Hun times. Of special interest was the cemetery of Kokel' (in Sutkholskii raion), with its preserved objects of wood.

Excavations were carried out by the Mongolian archaeological expedition in Trans-Baikal at the ancient Mongolian city of Khirkhira on the lower reaches of the Khirkhira river. S. V. Kiselev reported the extensive remains consisted of a citadel, a series of fortified country estates of the aristocracy and a great number of ruins of the dwellings of the townspeople. The central building of the citadel stood on a pyramid-like structure and had a tile roof and heating system under the floor, similar to the heating systems in the later palaces in Shenyang and Peking. One house on the outskirts of the city served both as a dwelling and a blacksmithy. In the kurgan at Okoshki Gora remains of three burials were found—unfortunately they had been robbed. A fourth yielded a wooden coffin with the remains of a boy, dressed in rich attire. Here also was found a silver cup of the type of the Buddhist skull cup with a sign of complicated Sanskrit ligature. A. E. Kusnetsov, an authority on Trans-Baikal, has determined that the well-known stele of Genghis Khan’s nephew Isunke stood near Khirkhira. Therefore, one may suppose that this city was the central estate of the dynasty of Genghis. There are also indications (tiling, dwelling construction) to support the hypothesis that there existed a much earlier settlement on the site of the city.

A. N. Lipskii discovered new Afanasievo burials on the Yenesei which contained large slabs bearing human figures with raised arms and a face crowned with two radiating horns and decorated with tattooed lines.

In the southern Altai region S. S. Sorokin continued excavating sites dating from the Bronze Age to the 1st millennium B.C.
A. P. Okladnikov reports that along the Viliui river in north central Siberia rich Neolithic cemeteries, a Neolithic settlement and a distinctive Bronze Age culture have been found. Work is continuing along the Arctic Circle in the region of the construction of the Khantaiskaia Hydroelectric Station. In addition to several Neolithic sites along the Viliui, Svetlana Fedoseeva excavated a very important Serovo cemetery. The inventory is basically of the Angara type, but with some differences.

In 1961 initial investigations were made in the region of the Zeiaskaia Hydroelectric Station (Amur oblast, near Blagoveshchensk) by the Institute of Economy and Organization of Industrial Production of the Siberian Section of the Academy of Sciences of the U.S.S.R. under the direction of A. P. Okladnikov. Here were uncovered not only the first finds of stone tools of ancient man in the Amur region, but possibly the oldest in Eastern Siberia and the Soviet Far East. The tools were crudely flaked axes or cleavers manufactured from pebbles. Similar tools have been found in the Far East and Mongolia. Also uncovered in a Neolithic settlement was a large collection of stone tools which included many chipped axes, crude skrebro, thin fine knife-like blades, and also pebble tools and flint nodules. No polished axes were found. The axes were of a type similar to those found in Mongolia and in the region around Khabarovsk. The flint nodules have counterparts in Mongolia, Manchuria and Alaska. Pottery was also present. It is the most ancient on the Zeia river and in general in the Far East and has been dated at about 6000 B.P. Excavations indicated two cultures in the basin of the Zeia river, the first a southern Amur culture of fishermen and agriculturalists, living in large settlements of pit houses, and second a more ‘northern’ Yakut or Cis-Baikal culture of hunters.

Excavations were continued in the ancient Eskimo cemetery at Uelen (Cape Dezhnev), under the direction of S. A. Arutinov and D. A. Sergeev. Work was centered on one burial complex which consisted of three graves contained in a single stone construction. However, stratigraphy indicated that they were of different time periods. Finds included ‘winged objects’, big slate knives which may be imitations of metal tools, points of toggle harpoons (both Old Bering Sea and later types), and boomerang-like blades of wood, similar to some found among the Chukchi and Yukaghir.

Fuller information is now available on the very important 1960 field investigations in Mongolia by A. P. Okladnikov, from whose report in Sovetskaia Etnografiia, 1962, 1: 85–89 the following is taken.

A. P. OKLADNIKOV'S REPORT

Among the newly discovered stone age sites in Mongolia, first we must especially mention the finds of stone tools in the extreme south of the Mongolian People’s Republic, within the territory of the Southern Gobi aimak at Ottson-Man’t. Here, in the immediate vicinity of the frontier post of the same name, were discovered the oldest stone tools yet known in Mongolia. The post of Ottson-Man’t is situated in an extensive valley bounded on the east and west by chains of low hills composed mainly of granites and siliceous slates (effusives). In the middle of the valley granite remnants of odd form protrude. They extend in groups one after another, and
around each such group are scattered stones worked by man. Despite the limited
time at our disposal, six separate points of concentration of stone artifacts were
brought to light here. Among the latter there stands out clearly a group of objects
which reveal features of very great antiquity. A black siliceous stone served as the
raw material in their making. The surface of the artifacts was strongly weathered,
their facets obliterated and worn smooth by sand. However, the forms of these
artifacts were well defined and typologically distinctive. What attracted our atten­
tion first of all was the presence of cores of archaic forms which are of common
occurrence in the Middle Palæolithic of Europe, Southwestern Asia and Africa.
Such cores are of two types: a. disc-shape cores; b. cores approaching a prismatic
form and in the character of their facets. From these latter cores, blades of
a very definite type were removed with well-calculated and well-aimed blows:
elongated-triangular with regular clear facets on the backs. Blades of just this sort,
including wide long ones with a platform typically bevelled in relation to the
cleavage plane, were discovered in large numbers at all six points near the Ottson-
Man't post. These cores and blades have features characteristic for the Levallois
technique of working stone which in Europe and Africa arose as early as Acheulian
times and thereafter continued and achieved its efflorescence in the Mousterian
epoch. In due course this technique gave rise to the still more perfected Upper
Palæolithic technique of fracturing stone.

The discovery of artifacts of this kind in the depths of Central Asia is important,
first, for the reason that it documents the settlement of the nowadays desert regions
of the Asiatic continent at a very remote time in human history—in the Middle
Palæolithic, i.e. around 40–50,000 years ago, and possibly even earlier. With these
finds we can now open the first chapter of the history of Mongolia—the history of
the human occupation of Central Asia.

A second conclusion connected with the finds at the frontier post of Ottson-Man’t
relates to the general characteristics of the culture-historical process on the territory
of Central Asia in those distant times. The appearance of a technique of Levallois
type attests important changes in the evolution of the industrial activities of man
and a definite progressive jump in this sphere. Moreover the appearance of new
forms of cores and blades is evidence of the simultaneous progressive evolution
both of the organism of primitive man and also of his mental activity—i.e. of the
intellect, consciousness and psychics of our distant ancestors. We are speaking of
the transition from the palæoanthropic Neanderthal stage to modern man. . . .

In the last decade in Soviet Central Asia, in the basin of the Syr-Daria (Kairak-
Kumy, Khodzhikent Cave near Tashkent, Kapchigai Gorge in Ferghana), a series
of localities of Levalloiso-Mousterian culture have been discovered; here were
found stone artifacts analogous to the newly-discovered objects in the Gobi. At
the same time new sites of the Lower and Middle Palæolithic were uncovered by
Chinese scientists in the basin of the Fen river near Ting-ts’un which were essen­
tially different from the localities at Choukoutien previously studied. The difference
consists in the fact that at Ting-ts’un the finds consist not of choppers (as at
Choukoutien) but of tools of the type of Acheulian hand-axes and points approaching
west European and, in general, Mediterranean forms. A pronounced 'Western'
appearance—in this case Mousterian—is also displayed by the new discoveries of
Chinese archaeologists at Chiao-chen (Shansi) between the Hsi-yeh-ho and Wa-yao-ho rivers, where various stone artifacts were found in a layer of reddish clay directly under loess but above a layer of gravel and sand. Among them there are massive skreblo with convex working edge, disc-shape cores of classic forms, equally typical points of triangular outline, and flakes and blades of Mousterian appearance. Here we must especially emphasize that it is precisely this Chiao-chen inventory which finds its closest analogies in Soviet Central Asia where hand-axes of early Acheulian forms have not yet been discovered but, to make up for it, artifacts of Mousterian (including Levalloiso-Mousterian) forms are very widely represented.

No less important results for an understanding of the nature of the Palaeolithic culture of Mongolia and its links with cultures of other lands was obtained by us in another region of the Mongolian People’s Republic, in the valley of the Orkhon river near Erdeni-Dzu, by the walls of the ancient Mongol capital of Karakorum. The first reconnaissance investigation carried out here by the writer in 1949 showed that the Palaeolithic settlement situated on the left bank of the Orkhon opposite the ruins of ancient Karakorum and the Erdeni-Dzu monastery was remarkable first of all by reason of the abundance of material. An immense quantity of stone worked by ancient man was scattered over it. This is explained by the fact that here over a period of many centuries the raw material for tools was obtained and also worked, and blanks, especially cores, were fashioned. The Palaeolithic settlement on the Orkhon river was thus a place where the most important process in the life of primitive man took place, linked with the basis of his life: the manufacture of tools to work with. It is no less important that the excavations at Erdeni-Dzu not only enabled us to reveal the way of life of Palaeolithic man but also to elucidate the successive steps in the evolution of his culture. As was established by the 1960 excavations, the Palaeolithic settlement on the Orkhon river is not a single-level but a stratified site. The differences in the technique of manufacture, in the types and forms of stone artifacts in the different levels of the settlement (there are no less than three of these) reflect important changes in the culture of its ancient inhabitants.

The first occupants of the settlement, who left us the artifacts of the third (lower) level, still stood very close to the people of the Middle Palaeolithic in the general appearance of their culture. Very ancient methods of working stone—Levalloiso-Mousterian in principle—predominated among them. The cores found in this level are disc-shape and Levalloiso-Mousterian double-platform and single-platform. Also uncovered here were skreblo, points and wide blades of regular outline. In the inventory of the lower level, in addition, an important place is occupied by pebbles split transversely by one strong blow. Sometimes the split edge of such pebbles is shaped by supplementary flaking and transformed into a massive cutting edge, as on a ‘chopper’. There are also points of Mousterian type, with triangular outline and massive cutting edges formed by steep stepped retouch. Such points are similar to certain points from Palaeolithic settlements in Siberia (see A. P. Okladnikov in American Antiquity 26, 4). In subsequent levels one can observe the existence of methods of working stone that are identical in principle and also discover kinds of artifacts similar to those found in the lower part of the cultural
deposit. But nevertheless a sharp improvement in culture is clearly discernible coinciding with the deposit of the upper level of the settlement. Here, along with massive artifacts made from transversely-split pebbles—choppers, points of Mous­terian type—there appear for the first time cores of actual prismatic type: i.e. those on which the striking platform is perpendicular to the plane of flaking. Tiny scrapers and lamelles are widespread. Of especial interest is the appearance of peculiar ‘core-scrapers’ of Siberian type, one edge of which presents a sharp edge worked by bifacial retouch, while the other is formed by long longitudinal facets produced as a result of the removal of blades (*ibid*). In the deeper levels of the settlement such core-scrapers are absent. The culture of the people who left this level is evidently transitional from Palaeolithic to Neolithic, although we did not find here a single purely Neolithic object—e.g. an arrow point or blank for an ax. One could label it in full measure Epipalaeolithic or Mesolithic, although this ‘Mesolithic’, like the Siberian one, differs sharply from the Mesolithic as known west of the Urals, in Europe, and also in Soviet Central Asia.

Besides this, the deposit conditions of the cultural remains—i.e. the stratigraphy of the ancient settlement—has major significance. While the lower horizons of finds are associated with typical diluvium in the form of yellow loam or sandy soil heavily enriched with lime, the upper horizon represents a brownish or brown (chestnut) soil stratum which differs sharply in its dark colouring and structure from the underlying yellow diluvial stratum. Consequently, it belongs in its entirety not to the Pleistocene but to the Recent (Holocene) epoch.

Analogous sites of the late Palaeolithic were also found in particularly large numbers in the valley of the Tola river, especially near Mount Zaisan-Tologoi opposite Ulan-Bator, and in a series of places below this mountain along the left bank of the river as far as the airport.

The most important site of the succeeding Neolithic epoch is the remarkable settlement (or more accurately, a whole series of settlements) in the region of Dalan-Dzadagada, at the locality of Baindzak (near the well of Shabar-us), which was first discovered and studied by members of the American Central Asiatic Expedition under the leadership of Roy Chapman Andrews. The settlement is located in a distinctive natural-geographic setting. It is associated with a ridge of ancient red dunes on the floor of a vast basin and occupies an extensive area. The cultural deposit is exposed on the surface in those places where the sand of the ancient dunes has been blown away by the winds. Everywhere on the bottom of the dune blowouts lie revealed remains of hearths made of smoothly-worn boulders and pebbles. In the hearths and around them are scattered a multitude of stone artifacts; the raw materials for these were obtained from multi-coloured siliceous rocks—chiefly red and chocolate-coloured jasper, and also yellowish, white and translucent chalcedony. The technique of working stone and the forms of the stone tools attest the fully-developed traditions of a Neolithic culture. The people of Baindzak possessed to perfection all the methods of working stone which are characteristic of the Neolithic epoch. They knew how to polish stone, although they used this method very rarely; they were especially skilled in the art of removing lamelles from a prismatic core; they knew how to retouch delicately flint artifacts,
including stone inset blades for knives, knives and arrow points. Their principal hunting weapon was the bow and arrow.

We can feel the existence of definite esthetic ideas by the blanks for beads made of fragments of eggshell of a fossil bird of the Pleistocene period—the ostrich; and also by fragments of ostrich egg shell which are sometimes decorated with very fine engraved designs of a geometric character.

An essential feature of the 1960 work at Baindzak, in contrast to the work of the American investigators, was that we gathered material from the blowout areas on the basis of their individual small sections. As a result we succeeded in obtaining not simply collections of stone tools of the Neolithic epoch but in recording something much more important; the remains of actual settlements of people of the stone age, the traces of the activity of specific social groups of the distant past. This obvious method enabled us to draw other no less important conclusions of a general-theoretical character. We were able in a general way to break the history of the Neolithic inhabitants of the Gobi into two major stages.

To the first and earliest historical stage belong the settlements whose inhabitants had stone tools and pottery which basically were very similar to the stone inventory and pottery of the Cis-Baikal tribes of the Neolithic. The presence of such fragile objects as clay pots shows that in this case we are dealing not with simple cultural links, not merely with an elementary exchange of things. We must suppose that around 4,000 to 5,000 years ago the south of Mongolia as far as the southern Gobi was penetrated by tribes of hunters and fishers of northern origin. These tribes, which spread out from Trans-Baikal and Cis-Baikal, carried with them from north to south not only their usual industrial equipment—their arrow points, knives, inset blades—but also their own distinctive methods of manufacturing clay pots. Their pots in form and method of surface treatment were similar to the Neolithic vessels of the Angara, Lena and Selenga. They had a half-egg shape, a pointed base, and their outer surface was covered with textile impressions, including the typical Cis-Baikal impressions of a woven net, which is characteristic of the Serovo stage of the Cis-Baikal Neolithic.

The second Neolithic culture, the remains of which lie in beds of ancient dune deposits higher than the remains of the first culture, belongs to a later time. Its chief difference from the older one is the fact that a new type of pottery appears, in place of the previous one. The outer surface of the vessels is now often decorated with red paint. Sometimes real ornamental painting was employed, executed in black paint on a red background. Changes in the economic life of this period are significantly reflected in the stone querns and pestles used for grinding grain and producing meal. This new period in the history of the ancient tribes of the Gobi is thus marked by the rudiments of primitive farming and the strengthening of cultural links with the Neolithic farmers of neighbouring Manchuria. J. Maringer also came to the same conclusion about a succession of two cultures, the first with northern links and later with southern—i.e. first with Siberia and subsequently with China and Manchuria. The new observations in the Gobi in 1960 underline and strengthen the significance of this conclusion first made by the writer as a result of work at Baindzak in 1949.
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A gazetteer of all finds of art objects of any sort. Appended is a tabular classification showing type of object and animal or human depicted, by sites.

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**ABRUTUNOV, S. A. and D. A. SERGEEV**


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**AVDUSIN, D. A.**


A comprehensive manual of field methods.

**BORISOV, V. G.**


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**CHARD, CHESTER S.**


Demonstrates that the complex cannot be of Asiatic origin.


**CHUBAROVA, R. A.**


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**DAVYDOVA, A. V.**


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**DEVLET, M. A.**


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Gerasimov, M. M.
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Griaznov, M. P.
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MARKOV, K. K., editor


A selection of recent papers at a Moscow University seminar on the study of the Pleistocene, designed for the 1961 INQUA Congress. French summaries. Includes T. D. Boiarskaia on the evolution of the Pleistocene flora of the Angara basin; L. V. Zorin et al. on the Pleistocene paleogeography of eastern Trans-Baikal; M. P. Grichuk on the principal characteristics of the changes in Siberian flora during the Pleistocene.

*Materialy Soveshchaniiia po Razrabotke Unifitsirovannykh Stratigraficheskikh Shhem Sakhalina, Kamchatki, Kuril'skikh i Komandorskikh Ostrovov.*

(Originals of the Conference for working out a unified stratigraphic scheme for Sakhalin, Kamchatka, the Kurile and Commander Islands). Gostoptekhizdat, Moscow, 1961.

Proceedings of a conference held on Sakhalin in 1959. Includes papers by Ganeshin on the Quaternary deposits of Sakhalin (pp. 249-57) and by Mokrousov and Sadovskii on the stratigraphy of the quaternary deposits of Kamchatka (pp. 258-70).

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OKLADNIKOV, A. P.


Designed to supplement the descriptive album by Okladnikov and Zaporozhskaya on the same subject (see AP 4:14). Provides a history of the study of this site together with a historical analysis and interpretation of the pictures. The two publications should be used together.


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On the evidence of the mammalian fauna.

VIATKINA, K. V.
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VOLKOV, V. V.
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Collection of papers. Includes V. I. Gromov on disputed aspects of the geological dating of the Paleolithic; M. N. Alexeev et al. on Quaternary deposits of Yakutia; E. I. Ravsky on periglacial phenomena and zones of eastern Siberia; N. A. Efimtsev on the Altai-Sayan glaciations; V. V. Lamakin on the Quaternary geology of the Baikal area; L. D. Shorygina on Quaternary deposits of western Tuva. English summaries.

VOROB'EV, M. V.
An example of knife money, of unknown provenience, but probably unearthed near Suchan; the first instance of such money so far from its original source.

Book Reviews


MONGAIT, A. L.: Archeology in the U.S.S.R.


Mainland China

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FIELD ARCHAEOLOGY

In past issues of AP it has been remarked that since the Communist takeover there has been an unprecedented amount of archaeological work in all parts of the mainland and a corresponding flow of archaeological reports in general and specialized periodicals, and in monographs. Unfortunately publication, or at least their export, of late has been somewhat erratic and often it has been difficult to obtain complete files of the serial publications. Some issues, however, can be obtained in photographic reproduction. Although at UCLA we attempt to obtain all Chinese publications on archaeology, we have so far been unable to get the first three issues of K’ao-ku (Archaeology) for 1962 and any issues of K’ao-ku-hsüeh pao (Chinese Journal of Archaeology) for 1961. During the current year, the output of monographs on important excavations also seems to have been restricted in comparison with the previous few years.

The present report is limited to the most important excavations or surveys in 1961, which appeared in a survey of field work in K’ao-ku (1962, 5: 272-274). The article contains only very brief notes, but further details and illustrations can be readily found in the other sources referred to here.

Neolithic. In the first part of 1961 the fifth season of digging was done at Ch’ü-chia-ling, an important neolithic site five miles east of the district city of Yin, on the north bank of the Han river in northwest Hupei province. Digging had been carried out from 1958 to 1960. This site is of importance because it has three clearly-defined cultural strata. The lowest stratum, about 1·5 metres thick, is Yangshao; the middle one, 2 metres thick, is Ch’ü-chia-ling; and the most recent one is Lungshan which averages about 1·5 metres in depth. The site covers approximately 40,000 sq.m., and in its western end are some intrusive burials dating from the Ch’un Ch’iu and Warring States periods. Over 1,000 sq.m. have been excavated, half of which was done in 1961. Nine dwellings, 15 ashpits, one kiln, 40 burials and a large amount of pottery, stone and bone artifacts were discovered during the entire excavation. This material and that from nearby neolithic sites are described in K’ao-ku 1961, 10: 519-530.

Early Bronze. Trial diggings were made in 1961 at Nan-shan-ken, Ning-ch’eng district, in Inner Mongolia with the object of solving certain questions on the Bronze Age period in southeastern Inner Mongolia and of the Hung-shan culture found at Ch’ih-fen in Jehol. The latter site was first discovered by Torii in 1908 and most recently excavated in 1960 (see K’ao-ku 1961, 2: 78-81). The 1961 test excavations
at Nan-shan-ken covered an area of 300 sq.m. and uncovered, in the lower cultural strata, 13 ashpits and two burials. One of the latter was of the so-called 'stone coffin' type in which the grave is outlined with large stones. In the upper cultural level were found 15 ashpits and eight burials, including three stone graves. The material recovered adds considerably to our understanding of the relationship between the cultures of these two areas. Among the bronze objects found in the stone grave in the upper level, of particular importance was a bronze knife decorated with cast animals.

Shang. Work done at Anyang in 1961 was mainly in further excavations of the site where, in 1959–1960, the remains of a bronze foundry were found about one kilometre southeast of Hsiao-t’un. The earlier excavations produced important finds of the foundry, crucibles, slag, moulds and related material (see K’ao-ku, 2: 67–69), and added considerably to our knowledge of bronze casting techniques during the Shang period. An additional 600 sq.m. were excavated in 1961 and more material of this sort was recovered giving information on the construction and use of moulds and bronze technology in general.

Chou. Surveys in the southeastern suburbs of Anyang resulted in the discovery of Western Chou sites at Ta-han and other places. These will be excavated in the near future and should be of considerable significance in our studies of the relationship between Shang and Chou cultures.

Surveys in the region of Ch’i-chia-kou, Ch’i-shan, Shensi province, have revealed a number of Chou dynasty sites. Early Western Chou sites lay scattered between Li-ts’un and Ho-chia-ts’un, and early Western Chou sherds were found in Ch’i-chia-ts’un and surrounding areas.

An extensive and important reconnaissance was made of the area around the two early Chou capitals of Feng and Hao near Ch’ang-an in Shensi Province. The area surveyed was approximately four million square metres. On the west bank of the Feng, a cemetery of Western Chou date was discovered at Chang-chia-p’o and at T’ai-yüan-ts’un, a group of Western Chou dynasty kilns. On the river’s east bank, many Western Chou dynasty sites were found between Hua-yüan-ts’un and P’u-tu-ts’un.

A group of Western Chou bronzes excavated in the neighbourhood of Chang chia-p’o was a most important find. Eleven of the 53 bronze objects had inscriptions, the longest of which had 99 characters. In Kuo Mo-jo’s opinion these bronzes were not made for one family nor at one time. At the earliest, they date from around the time of Ch’eng Wang, and at the latest in the middle period of Western Chou. It is possible that it was a hoard of bronzes left behind when the Chou House moved to the East. The style and content of the inscriptions, the vessels themselves and the calligraphy all are new contributions (see K’ao-ku-hsüeh pao 1962, 1).
Major archaeological activities in greater Southeast Asia during 1961 and 1962 were primarily in Thailand and Sarawak with valuable developments taking place in North Vietnam, Cambodia, Indonesia, and the Philippines. In Laos and South Vietnam, lack of personnel and the unsettled political conditions have made field work virtually impossible. In South Vietnam Saurin did one quick field excavation of a prehistoric site (see pp. 163–168, La Station Préhistorique de Hang Gon près Xuan-loc, Viêt-nam). Brunei and North Borneo are inactive (see Thomas Williams: Archaeological Research in North Borneo, pp. 230–231) but with the coming formation of the Federation of Malaysia they may probably soon start going. Burma continues with its moderate programme of field research under the able leadership of U Aung Thaw.

Brian Peacock who was formerly at the University of Rangoon is now with the Department of History of the University of Malaya. We may thus hope for an active programme of prehistoric research in Malaya, for Burma’s loss is Malaya’s gain. While on the subject of Malaya, Haji A. Mubin Sheppard, Director of Museums of the Federation of Malaya, has pointed out a spelling error in the section on Malaya in Volume IV of *Asian Perspectives*, page 70, ‘Kerubong’, the village in Malacca where eighty pieces of Chinese porcelain were found, was wrongly given as *Keburong*.

In Thailand during the past two years the Thai-Danish expedition has been working in central western Thailand. Several sites containing material from Palaeolithic to bronze using cultures were excavated. In the Bang Kao site, excavated by Per Sørensen, were neolithic burials with interesting pottery, closely related to the neolithic pottery of northern Malaya and thus to the Sa-huynh-Kalanay pottery tradition. Much of this pottery also shows close resemblances to the Lungshan pottery of China. This may well clarify in part the question of the origin of the Sa-huynh-Kalanay pottery tradition. We eagerly await carbon-14 dates for this site and the full reports. In the south, Alastair Lamb of the University of Malaya, has located a major site on Thailand’s east coast, containing quantities of Sung porcelain and local(?) earthenware. Lamb is on long leave in 1962–1963. In 1959 the Department of Fine Arts conducted a survey of historic and protohistoric sites in the northeast and have issued a report on their finds (Vallibhotama, Manit: *Plan and Report of the Survey and Excavations of Ancient Monuments in North-Eastern Thailand 1959*, Bangkok, Fine Arts Department, 1960). Arrangements have been made with the École Française d’Extrême-Orient for Bernard Groslier to assist in a restoration programme of some of the monuments in the area.
The latest news from Sarawak is of a new cave found in the roof of the Painted Cave, containing wooden canoe paddles, miniature bird's-nester's tools in wood and a wooden paddle for pottery manufacture. More of this will appear in the next news and bibliography issue of AP.

Two brief reports of archaeological research in North Vietnam have been received from their author P. I. Boriskovsky. They have been translated from the Russian by the Translation Bureau of the East-West Center at the University of Hawaii. Both these reports are combined and presented below.

Bernard P. Groslier continues his exciting discoveries at Angkor. In a letter of 12 August 1962, he mentions '... my excavations of this spring in the most fascinating Neolithic site of Indochina after Samrong Sen and Đồng-soন, with some thirty thousand sherds and two thousand lithic pieces. ...' A very brief history of Angkor and an even briefer résumé of the archaeological work and restoration there underway [Jeanne Auboyer: Recent archaeological work in Cambodia by the École Française d'Extrême-Orient appeared in France-Asie/Asia 1962, 18(172), 178–182].

The reports for Indonesia and the Philippines stand by themselves. However, pending the Philippine report in Volume VII of AP, comes the news of a major discovery of a series of archaeological sites in caves on the southwestern coast of Palawan, late 1962, by Galo B. Ocampo, Director of the National Museum of the Philippines. The finds cover a period from fifteen thousand years back, or earlier, up to about one thousand five hundred years ago. The National Museum is planning a five-year programme of explorations and excavations in the area [Philippine Archaeology: Palawan Caves, Pacific Science Association Information Bulletin, 1962, 14(5-6), 5-6].

MEKONG VALLEY PROJECT

The Mekong drainage area urgently demands a great effort to establish an archaeological salvage programme. The four countries of Vietnam, Laos, Cambodia, and Thailand have for several years been co-operating in the plans to develop the lower Mekong and its tributaries; this will include a number of dams and large reservoirs, new canals, power lines, access roads, etc. The planning and research stage will soon come to a close and construction, which has already started in some areas, will rapidly increase in the near future. No systematic prehistoric archaeology has been done in the areas which this vast project will affect. Some field survey has been carried out on historic monuments in northeastern Thailand (as mentioned above) in the general area of some of the projects on tributary rivers; numerous sites have been located. The Mekong and its tributaries must have had the greatest influence on the movements and the life of the peoples of Southeast Asia in prehistoric times as well as more recently. Archaeological salvage should be organized for this area for it is of as much importance to the people of Southeast Asia as is the salvage programme underway in the Nile valley to the people of that area. Some thoughts on this subject have appeared in an article titled "The Importance of Anthropological Research to the Mekong Valley Project", by Wilhelm G. Solheim II and Robert A. Hackenberg in France-Asie/Asia 1961, 17(169), 2459–2474. Solheim is working with the Fine Arts Department of the Government of
Thailand to organize a salvage programme for the construction and reservoir areas of northeastern Thailand; as usual, finance remains the major problem. Co-ordinated programmes should be developed for all four countries before it is too late.

VIETNAM


As the two reports somewhat overlap I have edited the two into one, using where possible the words of the authors, rather freely translated. Where I have used the author’s words I place them in quotes and present the article and page at the close of the quote as (1) for ‘Exploration of Ancient Sites . . . ’ and (2) for ‘Archaeological Discoveries . . . ’

‘Working in the territory of Vietnam in the course of several decades French geologists and archaeologists—A. Mansuy, M. Colani, E. Patte, J. Fromaget, E. Saurin and the others—discovered and excavated a great number of sites belonging to the Stone Age. French scholars worked in complete isolation from the Vietnamese people and did not train a single Vietnamese archaeologist. Not in one of the exceedingly numerous French works on the prehistoric archaeology of Vietnam, printed in Hanoi, Saigon, Paris, and other cities, is it possible to find even one name of a Vietnamese scholar who took part in the research. In consequence, when in 1954 the French departed, there could not be found a single Vietnamese archaeologist in the Democratic Republic of Vietnam. This gap has begun to fill up rapidly. In the past few years Vietnamese scholars have made important advances in archaeological research’ (1, 17).

‘To the author of these lines was given the honour of helping the Vietnamese in the training of archaeologists and acquainting them with the experience acquired by the Soviet specialists. In return, I had the opportunity of becoming acquainted with the research of the young Vietnamese investigators. During the year—from March 1960 to March 1961—I worked in the University of Hanoi in the position of instructor-consultant in archaeology. I presented several lecture courses and seminars (part of the practical studies I carried on were on collections brought from Leningrad) and took part in archaeological excavations and explorations’ (2, 98).

‘In 1959 Vietnamese archaeologists for the first time organized excavations of a neolithic settlement in the province of Phu-tho, northwest of Hanoi (Nguyen-van-Nghia 1960, Khái 1960). Still wider field researches on the period of the Stone Age [and Bronze Age] of Vietnam unfolded in 1960–1961. These were conducted in several provinces, covering a variety of sites, from Early Palaeolithic to Late Neolithic, and gave significant results. These works were organized by the University of Hanoi, the Vietnam Historical Museum, and the Vietnamese Institute of History.
In field researches as consultant, the author of these lines took part, together with the group of his student-collaborators of the above mentioned institutions. This article will briefly outline the basic results of these field archaeological works.

Perhaps, that which excites interest the most is the discovery of the Early Palaeolithic location on Đồ Mountain, made in November of 1960 by comrades Nguyễn-dồng-Ti, Hoàng-hinh, and Lý-văn-Lan. Mount Đồ is situated on the right shore of Sông-thiều river, a tributary of the Sông-ma river, in the territory of Thanh-hoa province, approximately 170 km. south of Hanoi and 8 km. northwest of Thanh-hoa city. A few km. from Mount Đồ there is situated a rich cemetery of the late bronze age Thiên-duơng (Đồngson culture) [see below] .... Đồ Mountain can be seen from afar. Its height is over 150 m. and it rises over the surrounding paddy-fields, which are mostly under water. The mountain is composed of basalt. In the lower part of the mountain slopes, on the weathering surface of basalt, lies the diluvial soil 20 to 30 cm. in thickness. At the height of 20 to 40 m. above the foot of the mountain is found indigenous workings of basalt, which is crumbling away. The fragments of these disintegrating rocks were used by the ancient inhabitants of Đồ to make tools. Amongst the basalt is also encountered tufaceous breccia, but it crumbles when struck, and not a single flake was made from it. Primitive man selected the most suitable material for his tools. Such was basalt, very hard and viscous, worked with great difficulty, producing sharp cutting edges when broken (petrographic definition of material from which the tools of Mount Đồ were produced was made by N. I. Riamzina) ....

'('Ancient stone artifacts lie on the rather gently inclined slopes of Mount Đồ, rising at an angle of 20 to 25 degrees, at a height of approximately 20 to 40 m. over the surrounding paddy-fields. Separate artifacts can be found on even greater elevations, up to the height of 90 m. They are lying amongst the great quantity of blocks, pieces and splinters of basalt, which carry no signs of processing by human hands.

'Among the finds, flakes made from basalt dominate. During the work on Mount Đồ (from November 1960 until January 1961) there were collected over 1,500 flakes, but by no means has the locality been exhausted. For all of the flakes general traits are characteristic. These are typical Clactonian or Chellian splinters, as occurring in the Early Palaeolithic locations of western Europe, in the south of U.S.S.R., Southern Asia (Zamiatinin 1951, Movius 1949), China and other territories (Pei et al. 1958). These are thick, massive, of irregular contours, with a wide, smooth striking platform situated under the obtuse angle towards the lower plane of the flake. The opposite side, the upper plane of the flake (the back), sometimes on the whole and sometimes in part, preserves the weathered, yellowish, tumescent crust, but most often it bears the trace of several strong preliminary strokes. Dimensions of these flakes are rather large. In diameter these are in general from 5 to 20 cm. Their thickness—from 0·6 to 3 cm. Scale-like and small flakes, up to 3 cm. in diameter, are absent. As a rule, the flakes are never retouched. If sometimes coarse retouching is found this does not shape the tool but follows the outlines of the uneven edges of the flake.

'Amongst the huge majority of such archaic flakes, characterizing Chellian or Clactonian technique of splintering stone, there were found several tens of
Levalloisian flakes, which are also quite massive, but with more regular, closer to oval outlines, with a striking platform of several facets.

'Over 40 specimens of cores were collected. Their characteristics fully correspond with the flakes found in the same area. The cores are large, 10 to 30 cm. in diameter, of irregular outline, practically without traces of touching up of the striking platforms. On their surface can be seen traces of cleavages where several large and massive flakes were chipped off.

'The coarse hacking tools and choppers are represented by 10 specimens. These massive pieces of basalt, up to 20 cm. in diameter, were chipped on several sides with a few rough strokes. Their form is irregular, all of them show great differences. Similar coarse chopping tools, side by side with the flakes, hand-axes and cores, form an important element of early palaeolithic technique and are found in almost all the Chellian sites of Europe, Asia and Africa (Zamiatnin 1951, Movius 1949).

'Not long before the work on Mount Đô came to an end, a typical Chellian hand-axe was found. It was the same kind of epidoticized basalt as the rest of the collection; it has the same surface characteristics. It is 14 cm. in length, about 10 cm. in maximum width, and around 7 cm. in maximum thickness. This axe is worked on both surfaces with several wide flakes removed from the edge to the centre. There is no retouch of the edges. The edges, of irregular outline, are wavy. On one end the implement is pointed. The opposite end, which was to be held in the hand, is wide, thick, blunt, and has a heel, a quite wide surface which is located almost under the right angle to the long axis of the implement; it is quite possible that when the instrument was grasped by the hand this wide surface pressed into the palm of the hand. This axe from Mount Đô is a much thicker, rougher and more archaic Acheullian axe and does not differ by any significant degree from Chellian or Abbeyvillian hand-axes which are found in a number of places in the Old World. All the tools made of basalt were somewhat smooth through age and abrasion and strongly patinated. The surfaces are discoloured and became lighter in colour. The sharp edges of the flakes are smooth.

'On Mount Đô, as in many other early palaeolithic locations, there is no associated fauna. Nevertheless, the date of the implements of Mount Đô is undoubtedly correct. This is not a single example but is a regular, large stable series, repeating each other in processed articles; a well-expressed cultural complex. The complex of stone tools on Mount Đô differs greatly from those of the Hoabinhian and Bacsonian cultures, the Late Neolithic and Eneolithic of Vietnam (shouldered axes). It does not have anything in common with these cultures and cannot be placed in Mesolithic, Neolithic or Eneolithic of Vietnam. On Mount Đô, any elements of technique of late palaeolithic culture are absent: blades, prismatic cores, etc. But instead, the whole complex with all its elements, resembles Chellian and Acheullian locations of India (Sohan), the Caucasus, and central and western Europe. The greatest interest is presented by the find on Mount Đô of a typical Chellian hand-axe. H. L. Movius presented a hypothesis according to which in the development of early palaeolithic culture of the Old World there existed two large, independent cultural regions: (i) spreading region of hand-axes (Europe, Africa and part of India) and (ii) region where hand-axes are absent and in their stead were spread rough
cutting implements (choppers) (part of India, China, Indochina, Indonesia) (Movius 1949).

'S. N. Zamiatnin (1951, 112–116) has advanced a sharp, and it seems to me absolutely just, criticism of the views of Movius. He showed how wide spread were hand-axes as well as rough cutting tools and in the same extent characteristic archaic flakes and cores in all territories of Europe, Asia, and Africa populated by early palæolithic peoples. Zamiatnin wrote (1951, 115): 'In its turn it is permissible to have complete confidence that hand-axes, in their most characteristic forms, which are not noted or mentioned, or almost unmentioned, in most of the lower palæolithic locations of Southeast Asia investigated in recent years, will be discovered in significant numbers.' The find on Mount Ðô of hand-axes confirms the view Zamiatnin expressed some ten years ago, and provides Zamiatnin, the author of this article and several other investigators, an important argument in its favour on the Early Palæolithic and its peculiarities, in contrast to the views of Movius.

'For Mount Ðô, it is thus possible to state that the early palæolithic location is related to the Chellian and Acheullian period. This discovery has great significance. The view that the territory of Vietnam has been populated from the time of the Early Palæolithic was long ago expressed (Mansuy 1931: 18), but was not confirmed by the archaeological finds. Fromaget and Saurin discovered in the caves of upper Laos, not far from Luang Prabang, a typical early palæolithic stone-tool assemblage with remains of fossil fauna, and bones possibly belonging to the most ancient anthropoidal humans (Fromaget 1940, Fromaget and Saurin 1936); but the most ancient archaeological sites known in the territory of Vietnam until the end of 1960 were the Hoabinhian caves (Saurin 1951, Vượng 1960). Hoabinhian culture belongs to the Mesolithic. Colani asserted that the lower Hoabinhian layers belong to the end of the Late Palæolithic (1927). These assertions of Colani were rightly criticized by Patte (1936) and Saurin (1951), who directed attention to the fact that in the Hoabinh layers there is no fossil fauna and only contemporary species of animals are represented. Like the above mentioned investigators, I assume there is no basis to date Hoabinhian culture at a time more ancient than Mesolithic. Now in 1960, however, young Vietnamese archaeologists, for the first time have proven that the territory of Vietnam was populated from the beginning of the Early Palæolithic.

'Soviet biologists A. E. Dovjikov, A. I. Jamoida, A. M. Marieichev and She K. Kitovani, who inspected Mount Ðô and its surroundings with us and greatly helped us with their advice, arrived at the following conclusions: The surroundings of Mount Ðô present an accumulative literal alluvial plain which contains the intered erosive relief. No signs of sea abrasion are found in these remains. The slopes gently submerge under alluvial; there are no abrasive projections, nor are there any abrasive terraces. Heights of these remains are different, and no signs of sea action are observed, hence there is no reason to assume that in the Early Palæolithic there was a bay of the sea [close to Mount Ðô] . . .

'Three km. from Mount Ðô, near the village of Ðông-khói at the foot of Mount Slon (elephant), comrades Trinh-nhu and Nguyễn-ngọc-Đình in November 1960, discovered a neolithic workshop. It is situated in completely different geological conditions to the early palæolithic locations on Mount Ðô. It is at a low elevation in the flooded paddy-fields and occupies an area approximately 1·5 km. in diameter.
Over all of this area neolithic artifacts are distributed, a great number directly on the surface, and also preserved in an undisturbed cultural layer. The layer is of dark colour, has a thickness of about 20 cm., and is thickly filled with stone flakes. It lies at a depth of 10–30 cm. from the surface and is covered by a thick layer of silt. The inventory originating from Đông-khoi is characteristic, particularly in its proportions of different categories of artifacts. From pit No. 1, enveloping an area of 2 sq. metres, were excavated 1,385 flakes of basalt, 14 unfinished rectangular polished adzes, a few small sherds of neolithic pottery and one fragment of a thoroughly polished small neolithic adze of almost rectangular outline. This is approximately the same content and the same proportion of finds as those discovered in pit No. 2 as well as of the surface material. Also the polishing tools were found on which the adzes were manufactured, and characteristic for the neolithic, large elongated plates. Completely polished, rectangular, medium-sized adzes are very seldom found amongst the excavated material. Shouldered adzes are absent. The material used was the same basalt as that on Mount Đô. It is possible that the blocks and the pieces of this basalt were brought here from Mount Đô, but the artifacts from Đông-khoi are less patinated, less weathered. The edges of the flakes appear to a greater degree fresh and sharp. The flakes from Đông-khoi differ in another sense from the flakes of Mount Đô. They are not large, thin (up to 8 cm. in diameter and up to 0.6 cm. in thickness), usually having small areas with indication of retouching.

The workshop of Đông-khoi should be related to a developed Neolithic, at a time much later than Basconian culture (Early Neolithic), and much earlier than the culture of the shouldered adzes (Eneolithic). The Middle, developed Neolithic is very little known in the territory of Vietnam and is represented by only a very few remains. In this connection, the discovery of the workshop of Đông-khoi is of significant interest. Until now the Mesolithic and Neolithic of Vietnam are found almost exclusively in caves and the shell middens such as Đa-bút (Patte 1932) and Bäu-cho (Patte 1925). Đông-khoi is a site of a new type, previously unknown in the territory of Vietnam. . . .

Besides the work in the neighbourhood of Thanh-hoa, reconnaissance was carried out in the Mesolithic and Neolithic bearing caves in the mountain regions to the west and northeast of Hanoi. In this work, besides the author of this article, also took part archaeologists Trán-quốc-Vương, Hâ-vân-Tán, Trinh-nhu, Nguyễn-dong-Ti, Ly-vân-Lan, Phâm-dai-Duyên, Nguyễn-dinh-Nghinh, and Phâm-vân-Ban. The exploration started from the districts of the province of Hoà-binh, situated approximately 100 km. southwest of Hanoi. Here are situated numerous sites well-known as the results of works of Colani, Mansuy and other investigators of the Hoà-binh caves, related to the Mesolithic and partly to the Neolithic. We wanted to verify several conclusions of Colani and clarify to what degree this region has been investigated in an archaeological sense. It appeared that here were a number of caves of the Stone Age which no foot of an archaeologist had ever tread. During the ten days of work in the province of Hoà-binh, thanks to the co-operation of the local populace (Mon and Vietnamese), we succeeded in opening three new Hoabinhian caves, besides observing many of the caves reported by Colani.
First amongst them, the cave of Soli (salt) (Hàng-muôn) is situated in the district of Tan-lạc, near the village of Trần-xen, several hundred metres away from the Trần-xen cave, which was opened and described by Colani (1927). It is a rock shelter easily reached, opening to the south-southeast. It is 25 m. wide 14 m. deep and 12 m. high. Many mesolithic and neolithic cultural remains lie directly on the surface under the outcropping, and also on the gentle slope which leads from the shelter into the valley. A four square-metre pit revealed a cultural layer containing usual Hoa-binh findings: a number of shells of edible mollusks, a small quantity of fractured bones of animals, charcoal, ash, flakes and chips of stone, and stone tools. Flakes and chips of stone are numerous as is the general characteristic of Hoa-binh and Bác-so'n caves of Vietnam. All the implements excavated from the cave of Soli were made of river pebbles, from 5 to 18 cm. in diameter and from 2 to 6 cm. thick. Hence disk-type implements were prepared from the halved pebbles. One surface is smooth and unworked; from the opposite side all around the circumference they are chopped off with strokes which go from the edge to the centre. Closely related implements similar to the disk-type forms but of oval outline are elongated axe-type implements which are worked on both surfaces, reminding one of the Late Palaeolithic of Siberia. Massive scraper-type tools were found made from thick pebbles carrying imprints of a number of strokes along the one convex edge. Finally here were found several typical early neolithic Bác-so'n adzes, flat, elongated pebbles of relatively regular outline, completely unflaked, but thoroughly polished at one end on both surfaces to the very edge of the blade.

A second Hoa-binh cave (rock shelter), Hạng-dông, is situated in the district of Kim-bôi in the village of Xóm-hoàn. It is situated on the relatively steep forested slope, at an elevation of approximately 100 m. above the surrounding fields, and approached with difficulty. It is 60 m. wide 15 m. deep and about 30 m. high. The cultural remains are found on the surface and the excavation of six square metres disclosed a cultural layer. The cultural remains found are similar to those found in the cave of Soli. We also came across a number of shells of edible mollusk and fractured pieces of animal bones. On the surface were found disk-type instruments, scrapers, early neolithic Bác-so'n adzes with polished edges, as well as so-called short adzes, worked on all sides, rectangular, very close to being square in outline. The inventory of Hạng-dông is distinguished from the cave of Soli by a greater quantity of flakes, a lesser quantity of finished instruments, and by some amorphousness.

A third small cave, Xảo-dông II is also situated in the district of Kim-bôi, about 40 m. to the northeast of the well-known cave of Xảo-dông described by Colani (1927). On the surface and in a small test pit were discovered a great number of shells, flakes of stone, and sherds of neolithic pottery.

Our excavations showed that Colani in her work in the Hoa-binh caves had collected thoroughly and completely cultural remains, and hence her publications give a relatively full and objective picture of the Hoa-binh inventory. We were further convinced of this due to the total absence of any sign of fossilization of fauna remains recovered from these caves. This would be another argument in favour of the Hoa-binh caves being of Mesolithic and Neolithic age, and not Late Palaeolithic.
Following the work in the province of Hoà-binh we conducted an exploration in the mountain massif of Bác-so'n in the province Lạng-so'n, approximately 120 km. north-northeast of Hanoi. The early neolithic caves Fo-dìn and Keo-fei, which had been opened and recorded by Mansuy (1909) were examined. A brief exploration in the region of Điện-biên-phủ, approximately 300 km. northwest from Hanoi, brought to light a small neolithic rock shelter, situated rather high in the mountains near a village of the Miao people. Here excavation revealed several stone tools and sherd of typical neolithic pottery with the imprints of weaving. This find is very interesting, particularly because with the exception of reconnaissance work carried out by Colani in 1927 in the nearby area of Mount Sơn-la which resulted in the discovery of the neolithic site of Banh-mau (Colani 1928) in this northwestern section of Vietnam archaeological search has not been made (1, 17–25).

During the winter of 1960–1961 one of the basic objectives of the excavations of the Vietnamese archaeologists was the cemetery and settlement of the Late Bronze Age, Thien-du'ong, situated near Mount Thanh-hoa, approximately 170 km. south of Hanoi. This site is dated approximately the third to fourth centuries A.D. and related to the so-called Động-so'n culture. The excavations were organized by the Historical Museum, with the participation of the University of Hanoi and the Vietnamese Institute of History. The head of the expedition was Nguyễn-văn-Nghia, Director of the Historical Museum and his closest assistants were Nguyễn-ngọc-Bích and Trần-dình-Diễm.

Before the beginning of the excavations, a serious difficulty arose. On the mountain where the cemetery and the ancient settlement were discovered was a contemporary Buddhist cemetery—the place of fathers and grandfathers of people living in the neighbouring village. Very often similar difficulties become unsurpassable obstacles to archaeologists. To excavate the cemetery would be a serious insult to the local inhabitants. However, after several discussions with the villagers by the participants of the expedition, everything was arranged. The peasants offered to move the cemetery to a new location. On auspicious days designated by the village elders, the clay boxes with the remains were carefully dug up and moved to a new location under their observation.

Thien-du'ong was opened for over one thousand square metres and several dozen burials with a rich inventory were discovered. Human skeletons, due to the tropical climate, were in poor preservation. But in the burials were found innumerable well-preserved clay vessels, clay models of houses, bronze axes, spear tips and daggers, bronze bracelets, silver and gold rings and different kinds of necklaces. Unique finds were two amber beads in the shape of dogs and, serving as a decoration, a large nephrite disk with a relief ornamentation and open in the centre. Iron implements, which were just beginning to appear during this ancient Vietnam epoch, were occasionally found. In the graves together with the predominant objects of local fabrication were found round bronze hand-mirrors from China with Chinese characters, as well as bronze coins. Their study will permit a more precise dating of the graves.

The problem of the Động-so'n culture appears to be complex and interesting. Closely connected are the questions of the origins of the Vietnamese people. The
excavations at Thien-duong undoubtedly bring the solution of the problem closer (2, 98-99).

'At the present time the materials described in this article are being studied and classified by Vietnamese scientists. Just recently in Hanoi there was published a survey of the works on Mount Đô and the book of the young assistants of the University of Hanoi Trần-quốc-Vươn and Hà-văn-Tân entitled 'The History of Prehistoric Archaeology in Vietnam'. In the winter of 1961 to 1962, the Vietnamese archaeologists unveiled new excavations and investigations in many parts of their homeland. Soviet archaeologists, with great interest, await information on the new investigations of their Vietnamese colleagues' (2, 101).

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Book Review


Malleret’s Volume II of L’Archéologie du Delta du Mékong is to me, even more exciting than the first which I reviewed in AP, 4 (1960): 63–65. Volume II deals with the artifacts with which a prehistoric archaeologist feels at home, whereas the first volume had to do with the architecture and statuary with which a North American trained archaeologist is not familiar.

The volume is divided into four parts: a. stone tools, b. pottery, c. bronze and iron, and d. tin; a brief discussion opens the presentation of each subgrouping of artifacts. It presents comparative material from Vietnam, neighbouring areas, and much wider afield; some of the comparisons with artifacts as far away as western Europe would seem unnecessary as there are no suggestions that they are related. A brief list follows with description and source of each artifact; many are illustrated in the separate book of plates. This typological approach is a necessity as so little artifactual material was recovered from any one of the sites—chosen and excavated for exploratory purposes—that separate site reports for every site would be very disorganized. Descriptions and accurate locations of all sites in the Transbassac were given in Volume I, Part 1.

Relatively few stone artifacts were recovered. Among these were shouldered and rectangular adzes, sling stones, bracelets, pendants, and both food and possibly cosmetic grinding stones. The organic remains, covered in the same section, were even fewer: a few pieces of horn, bone, wood, and some resin. Very little evidence of rice growing was found though the canals, observed from the air (Volume I), indicate the importance of irrigation. A few grains of carbonized paddy were found in one excavation associated with cattle bones, but they were lost unfortunately in an exposure before their laboratory examination was complete. However, the paddy husk used for temper in pottery presents further evidence of rice (87–88). No metal tools that could be considered agricultural were found. Malleret thinks that all may have been of iron were completely rusted away in the acid soil (87). Another possibility would be that bamboo was used in harvesting and other wooden tools to work the ground, as is done today in some areas of Southeast Asia.

The volume’s largest section is on pottery. This was not found in sufficient quantity that any detailed analysis could be made. Only about 2,000 sherds and 141 almost complete vessels were recovered (122). This is sufficient to give a good idea of its range. As most of the pottery is undated, the descriptive classification has to cover pottery of the Neolithic to the end of the 9th century; the classification is simple, but quite adequate.

A few tools probably used in making pottery were found. A mushroom-shaped pottery anvil (pl. xix 1) and the remains of a wooden paddle (pl. xix 2, 166) indicate the use of a paddle and anvil in manufacture. A pivot de tour was also found (pl. xix 3, 107) indicating that local manufacture included wheel-turned pottery. An interesting presentation of methods of manufacture and decoration (110–114) includes a discussion of ‘au panier’ and ‘cord-marked’ concepts. In Appendix I (353–357), M. Claude Beaucarnot presents further observation on pottery technology. I had difficulty in following the French author, in the absence of a good anthropological dictionary and multilingual glossary of anthropological terms, which now happily is underway by Current Anthropology (see CA 31: 432–445).

On page 354 and 357 Beaucarnot, according to my dictionary, speaks of pottery made in a mould (moule), which he says is still a common method of manufacture in the Far East (357). There is something wrong here which I must ascribe to my inadequate knowledge of French. He also makes several references to kiln (four) fired pottery, but Malleret, as far as I could find, has no mention of finding a pottery kiln.

On the distribution of the common incised undulating line decoration found in the Transbassac (115–122), Malleret says that it is still in use on the east coast of Mindanao in the Philippines. This is misleading as nowhere in the Philippines is this sort of decoration used at the present time or in the recent past. However, it was common during the Philippine ‘Iron Age’ and found from there down through sites in New Guinea and the New Hebrides to Fiji [see E. W. Gifford: Archaeological excavations in Fiji, AR, 13(3) 1951: 237 and pl. 20, and Solheim: Oceanian pottery manufacture, JEAS, 3(2) 1952: 13–14]. Many of the variations of this design found in the Transbassac and on the pottery of the Pontian boat, are also found (though still unpublished) on pottery of very similar paste and thickness in the Santubong delta sites of Sarawak dating around the 8th to 10th centuries.

One curious vessel illustrated as a cup in Plate xxxix has no bottom, but from the drawing it appears to be whole. Either there is an error in the drawing or else it may be something like the
pottery stands(?) found in the neolithic pottery of Malaya, though in quite a different style. Finally, the tampons, which Malleret thinks served to print designs on cloth (186–188, pl. XLVII-L and LXXI-LXXII), look to me much more like a food grinding or crushing implement. The 'decoration' on the base would in any case help to grind a soft substance and the rough surface (resulting from the considerable amount of sand in the paste) would also help this. Neither bronze or iron artifacts were common. Malleret's explanation for the small amount of bronze is the present practice of using again any metal discovered (193), as to iron it was rapidly oxidized away in the acid soil. Both explanations seem reasonable. The two iron tools at the top left of Plate xviii are similar to three tools from Batu Kurau in Malaya (G. de G. Sieveking: The Iron Age Collections of Malaya, JMBRAS, 29(2) 1956: pl 16d). The same two tools and the iron tool immediately to their right (pl. xviii) are similar to the iron tools associated with Kalanay complex pottery in the Visayan Islands of the Philippines (Solheim: The Archaeology of Central Philippines: A study chiefly of the Iron Age and its relationships, PJS, in press). Tin artifacts, primarily amulets(?) and pendants, many with Indian symbols on them, are the metal artifact most commonly found. Malleret recommends that more quantitative analyses of metal be made (252). His tables in Appendix II and III give 6 to 11 elements and their percentages found in the artifacts analysed. Chemical analysis is certainly of value, but would not a spectrographic analysis for trace elements would be cheaper, quicker, and just as valuable for the working out of relationships and sources of the raw materials?

I eagerly look forward to the appearance of the third and final volumes in this series where Malleret is to give his conclusions on the Transbassac data which he has so ably presented in the first two volumes.

W. G. S.

Publications Noted

A few other publications of interest in connection with Southeast Asia are the three numbers of Pacific Science Information and two articles. The Pacific Scientific Information Centre, B. P. Bishop Museum, Honolulu 17, Hawaii, published in 1961, for the National Science Foundation, three reports on 'Scientific facilities and information services of the Republic of Indonesia' (No. 1), ' . . . Federation of Malaya and State of Singapore' (No. 2), and ' . . . Republic of Vietnam' (No. 3). These reports include coverage on institutions carrying on research in anthropology and archaeology, and on publications with articles on these subjects.

The presidential address by Lauriston Sharp, delivered to the Association for Asian Studies in 1962, titled 'Cultural continuities and discontinuities in Southeast Asia,' has appeared in JAS, 22(1), 3–11 (1962). He speaks of the difficulties of research on the archaeology and anthropology (and all social sciences and humanities) of Southeast Asia due to extremely different ethnic groups found side by side in the area today and, by all indications, for the last several thousand years. This sharply contrasts with the relatively homogeneous and long-lasting traditions that developed in India and China. Finally, in 'A musicologist looks at Africa,' The South African Archaeological Bulletin, 16(64), 122–127 (1961), Percival R. Kirby notes relationships between the music of Africa and Indonesia, and states: 'It is the enormous influence upon Central Africa of one of the great oriental civilizations, that of Indonesia, that I hope to emphasize in this paper with the help of musical evidence, much of which, I fear, has been overlooked in the past' (122).

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The present report covers the period from 1959 to 1961. With the departure in 1956 of Mr H. R. van Heekeren, former prehistorian of the Dinas Purbakala [Archaeological Service], systematic work in this field decreased; and as the present reporter, in his capacity as archæologist of the Dinas Purbakala, had to attend to a variety of matters, a considerable backlog of work piled up in the section on prehistory. Without adequate and a well-trained staff it was impossible to do more extensive work. Dr Th. Verhoeven of the Catholic Mission in Flores continued his exploration on Flores Island. An extract of his work is given below.

During this same period illicit diggings have been carried out by inhabitants of some areas, and caused total destruction of some sites and objects, before they could be stopped. A number of the finds from these diggings are now preserved by the Dinas Purbakala in Djakarta and Gianjar (Bali) and by the Museum of INSTITUTE OF INDONESIAN CULTURE in Djakarta.

With the reporter's appointment in 1960 as head of the Bali branch office of Dinas Purbakala, archaeological activities have been devoted mainly to Bali.

Dr Wilhelm G. Solheim while doing work in Malaya, in May 1960 paid a short visit to Djakarta. Dr Roger Duff, Director of the Canterbury Museum, New Zealand, visited Indonesia at the end of January and in the first week of February 1961 to study the Neolithic adzes of Southeast Asia.

FIELD WORK AND RESEARCH

Java

New finds of Pithecanthropus mandible and Palæolithic exploration. The palæontological section of the Geological Service reported the discovery of a right mandible of Pithecanthropus from Sangiran, the famous Pithecanthropi-site in central Java, during November 1960. Study of this mandible is now in progress.

A closer examination was planned to confirm the discovery of J. H. Houboldt in 1937 at Kedungbulus, about 4 km. northeast of Gombong (south central Java). Houboldt stated that he had found palæolithic artifacts of the Patjitan type, but his collection appears to have been lost during the war without having been described. In May 1959 Mr Basuki, of the Archæological Service carried out the investigation of the area, which extended from the village of Kenteng to Pekuntjen in the southern part of the south Seraju Range. It is built up by pretertiary and tertiary layers consisting of volcanic, sedimentary, and metamorphic rocks, which have been exploited as raw material for stone tools. Rolled artifacts and core tools were picked up from the gravels of the Kenteng river, but gave no indications
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for possible finds on terraces and hill slopes at the side of the river. The specimens consist of few types. Among the artifacts can be distinguished one chopper with a concave butt-end, flakes, one hammer-stone, tools made of chips of which one was microlithic (crescent-shaped), and instruments made of cores. Cores of blade tools form part of the collection. Geological explorations will have to be executed for exact dating of this culture.

The Buni site. Short investigations at the village of Buni (Bekasi) have been made by a team of the Archaeological Service in March and April, 1960. They were undertaken because of the reports of unlicensed diggings, stimulated by accidental finds of small pieces of gold.

Buni is approximately 25 km. east of Djakarta at 5 km. distance from the seacoast. Remains of sea shells and beds of sand indicate that this site had been situated on the seashore. About 6 hectares of the eastern part of the village territory, including paddy-fields, yards and even unpaved rooms of village houses, had been completely rooted up. During the inspections, in the earth from the diggings, were found scattered fragments of human skeletons, numerous potsherds, fragments of neolithic adzes and teeth of animals (such as pig, cattle, rhinoceros). It would seem that the digging lasted for several months and the diggers were searching only for gold and beautiful polished neolithic adzes. Trial trenches were dug to verify the site but without satisfactory results. No stratification has been revealed; the different materials found were mixed up in the soil indicating that the area had been disturbed at an earlier date. The provisional collection obtained in the course of the surveys, and by buying the most important objects from the villagers, is in fair state of preservation at the Archaeological Service and in the museum of the Institute of Indonesian Culture in Djakarta.

The material recovered represents several different cultural periods and includes complete and broken pottery of earthenware and porcelain, neolithic adzes of silicified limestone and semi-precious stone, grinding stones, pounding stones, cornelian and glass beads of various sizes, complete and broken bracelets of glass and semi-precious stone, terracotta net-sinkers, bronze fragments, iron scoriae, terracotta moulds of bronze axes, and thin gold plates and gold ornaments.

The neolithic adzes are of the types commonly found in Java. The majority are quadrangular adzes with a few pick-adzes (Pl. IA).

The earthenware pottery is of particular interest. The sherds are generally yellowish or dark brown. The most typical decoration is stamped or carved paddle decorations with variations of a 'combined concentric circles and short lines' pattern (Fig. 1 a–c). Other less common decorations are incised and impressed and consist of bands or limited spaces filled with dashes, punctations, oblique and vertical parallel lines, or chevrons (Fig. 1 d–g, j, l). Rare patterns are rectangular scrolls (Fig. 1 f), small triangle stamps (Fig. 1 h), Y-shaped stamps (Fig. 1 i), and rectangular crossed impressions (Fig. 1 k). Some other types of designs still have to be singled out in the course of an accurate examination of the entire collection.

Among the several complete jars which have been collected two call for attention. One has a deformed calabash-shape with flat bottom and is decorated at the broadest part of the body (Pl. IB right). The decoration is formed by two small bands
superimposed upon a broad one which covers its bulging portion. The small bands are filled with oblique lines composed of punctations and the broad band is ornamented with oblique, parallel impressed lines linked together by oblique dashes.

Remnants of white paint are still visible on the brownish coloured surface of the exterior. The other is a globular jar with slightly concave bottom, narrow neck, broken mouth and decorated with oblique ribs at the upper part of the bulging zone (Pl. I B left). Both jars were hand made.

The decoration of some of the Buni pottery would indicate a close connection with the Sa-huỳnh-Kalanay pottery tradition in Southeast Asia (AP 3[ii] 1959).

During an examination of the western quarter of the village, small cores and blades of obsidian, some blades of chalcedony and shell scrapers were collected from the surface.

Since February 1961, the culture-bearing area of Buni is under state protection to prevent non-governmental activities with regard to the archaeological material. Systematic excavation and analytical work still must be done in the future.

**Early Metal Age.** Fragments of bronze kettledrums, consisting of two tympans and a part of the mantle of one, were turned over to the Archaeological Service in January 1960. The tympans, with a diameter of 80 cm. and 77 cm. respectively, each show a twelve-ray convex star in the centre. These are encircled by concentric bands ornamented with the usual patterns of the Heger I type drum found elsewhere in Indonesia. The four bronze frogs are still attached to the border of the tympans. Considering the size of these fragments, the height of the kettledrums should measure about 60 cm. All of these fragments were discovered at Tuguredjo,
west of Semarang (central Java) where four other specimens of the same type of kettledrum had been previously found.

New finds of stone-cist graves in the village of Sajangan (Plajen) were reported in September 1959; they were made in the well-known site of stone-cist graves in the limestone hill area of Wonosari, south of Jogjakarta (central Java), where A. N. J. Th. a Th. van der Hoop conducted explorations in prewar times. An investigation held by a team of the Archaeological Service in January 1960, only found fragments of stone slabs about 15 cm. thick and several conical pillars, all made of whitish limestone. The fragments originally belonged to one stone-cist, while according to informants, fragments of another one were concealed in a nearby paddy-field. The graves had contained skeletons and grave goods such as iron tools, glass beads and objects of baked clay all of which the local people had destroyed. Only few fragments from the cist are now in the hands of the Archæological Service.

Bali

In the middle of 1960, the Archæological Service began a special research programme to cover the entire prehistoric period of Bali. The discoveries made have enlarged our data on prehistoric Indonesia and have given us the possibility of tracing a continuity of cultural development on Bali from its earliest stage.

Palæolithic exploration. The first discovery of palæolithic tools was made during a field survey in the area of Sembiran, north Bali, in May 1961. Several tools (Pl. II A–B) were collected from the surface of the footpath which connects the village of Patjung with Sembiran. A second visit in the same area yielded a collection of about forty artifacts. A trial excavation was made in July of the same year.

The site lies on one of the basaltic ridges of the Gunung Batur complex which flows down northward to the sea coast. This complex is in reality a giant caldera and forms part of the northern mountain region of Bali which is a continuation of the quaternary volcanic complexes of Java known as the Solo Zone. The artifact-bearing ridge, like other ridges in the area, was a lava flow probably from the eruption which had created the Batur caldera.

All the tools were mixed with raw material and rejects in the reddish earth overlapping the basaltic mass. The reddish-brown patinated artifacts, made to a large extent on medium and small-sized pebbles of basaltic rock or sometimes also on parts of shattered boulders, had undergone unifacial preparation leaving much of the cortex on the surface. These include types such as choppers, scrapers, hand adzes and proto-hand-axes as well as tools with irregular shapes, such as hammerstones and utilized nuclei. The most characteristic type is the high-backed scraper with a straightened butt-end, steep side-planes, an arched edge and a slightly concave base. Although resemblance in shapes and working technique between this Sembiran assemblage and the Patjitan in Java is remarkable, the preference for smaller-sized artifacts in the Sembiran is recognizable.

More of research is needed to explain the stratigraphic situation; further excavations and geological investigations for the exact dating of this palæolithic culture are now in preparation.
Cave explorations. Special attention has been given to the Island’s southern peninsula which consists of tertiary limestone hills where the existence of rock shelters and caves has been observed.

Excavations were made in two small rock shelters (situated about 129 metres above sea level) and in one cave (situated about 185 m. above sea level) in July 1961. To the local inhabitants these shelters are holy and permission to excavate was allowed only after the required purification ceremonies were performed. The first rock shelter (Karangboma I) proved to be unoccupied. The second (Karangboma II, lying a short distance from the first) yielded material of little importance consisting of broken sea shells and some plain potsherds. An excavation of a trial trench, measuring 4 by 1 metre, at the entrance of a cave called Goa Selonding gave better results. The testing of the cave floor has reached the maximum depth of about 70 cm. from surface level and revealed only one layer which contained bone scrapers, a pointed deer antler, teeth of animals (pig, deer, rodent) and much charcoal. The entire excavation in Goa Selonding would be of great importance.

Megalithic structures. Structures of megalithic character have been noticed in many localities on the Island. Certain forms are still regarded as holy, being intermediaries between the people and their local divinities.

Investigations were made in several villages in 1961. In Tenganan Pagringsingan, the well-known ‘Bali Aga’ village in east Bali, we found stone altars, stone platforms and small stone seats in their original forms. The original village has a terrace structure with an elongated, rectangular ground plan, showing two broad main streets parallel to the longest sides of the village. The terraces are connected by stone-paved declivities. Seats, built up with stone slabs, are to be found in temples in the surroundings of Penebel, central Bali; while sanctuaries, in the shape of terraced platforms crowned by upright stones or stone altars, have been observed in the village of Sembiran, north Bali (Fig. 2). Search for more evidence of megalithic aspects will follow, especially in the mountainous areas.

Sarcophagi. Sarcophagi in Bali have been investigated since prewar times chiefly by V. E. Korn and P. V. van Stein Callenfels. Work was continued by van Heekeren after the Second World War. Although van Heekeren systematized the results of prior investigators and succeeded in settling the date in the frame of cultural spread during the early Metal Age in Southeast Asia, the final stage of research on the local development has still to be accomplished.

A team conducted by the reporter completed the survey of sarcophagi during 1960 and 1961. In all forty-eight sarcophagi, located in twenty-five sites, were investigated. Only one sarcophagus, excavated in June 1960, was undisturbed; most of the others were destroyed by local villagers when searching their contents. Re-excavations were executed and several damaged sarcophagi were reconstructed. Thus it was possible to trace the local distribution, the local beliefs and ceremony in relation to the burying in sarcophagi, and to classify the types of sarcophagi. A number of different types of sarcophagi, after reconstruction and remainders of grave goods, fragmentary or complete, are now held by the Archaeological Service.
Two methods of entombment were proven. The most common was placing the dead in a squatting position in small-sized sarcophagi. The interring of the corpse in an extended position in larger ones seemed less common.

![Diagram of a terraced structure with upright stone on top, in Sembiran, North Bali.](image)

**FIG. 2.** Terraced structure with upright stone on top, in Sembiran, North Bali.

Typical of the sarcophagi are the protruding knobs which have shapes of human heads or geometrical diagrams (circles, rectangulars, septangulars, etc.). There are only a few types which do not bear the knobs. The type most widely spread has been the small one with head-shaped knobs in which lid and coffin had a trapezoidal cross section (Pl. II c).

The undisturbed sarcophagus at Tjatjang, central Bali, belongs to the type without knobs; it has a lid and coffin, semi-circular in cross section, and contained a male skeleton in crouched position, furnished—as in the case of all other sarcophagi—with grave goods such as bronze arm- and foot-rings, bronze ceremonial shovels and cornelian beads.

The survey showed that nearly all of the sarcophagi were oriented towards mountain tops, probably indicating the popular belief that the land of the souls was located in the mountains.
Sites of earthenware and burials of west Bali. Explorations were made in February 1961 in areas of West Bali, in particular, a suspected jar field at Tjekik, about 6 km. from Gilimanuk, and on a burial place on the shore of Gilimanuk Bay.

According to informants the site at Tjekik was disturbed during the Japanese occupation when labourers were constructing the main road leading to Singaradja. Numerous potsherds are still noticeable on both sides of the road over an area several hundred metres long. Tests on the southern side of the road revealed only numerous fragments of earthenware. Some small grinding stones and a few bones of fowl and cattle were found mixed with the sherds in the disturbed layers. Whether this site was a graveyard or a settlement is still in question but the testing located neither definite remains of human skeletons nor any tool of importance. Further excavations are necessary to get decisive results.

At Gilimanuk were found potsherds identical to some types of the Tjekik earthenware, here in clear connection with burials. Much human skeletal material was found scattered on the bay shore among the broken earthenware. These remnants had slid off from the desiccated terrace situated on the southern sector of the bay. On the heavily eroded slope of the terrace, about 25 cm. from ground surface, were discovered one complete pot (Fig. 3b) and several other broken pots, some of which were associated with human bones. The complete pot contained nothing but yellowish sand while one of the broken pots enclosed a grinding stone. Two other complete pots, similar to the first, were found by villagers; one of which was turned over to the Archaeological Service. A trial trench was made in the terrace exposing potsherds, skeletal remains, and an iron chopping knife. An excavation of the entire productive bay-sector is planned for the future.

[Fig. 3. Pottery of West Bali]

a. Round-bottomed jar, Tjekik.

b. Globular pot, Gilimanuk.
c. Double-rim vessel, Gilimanuk.
d. Shallow bowl, Gilimanuk.

The pottery of Tjekik includes a coarse variety, manufactured by hand and a less common variety of finer quality (Pl. IIIa–i). Judging from the form of the sherds, the usual shape of the coarse vessels was round-bottom jars of various sizes (Fig. 3a). The jars have no distinct rim but simply a thickening at the lip. The exterior, including the upper side of the lip, is entirely cord- or carved paddle-marked and red or greyish brown in colour (Pl. IIIa–c). The sherds of the finer variety are thinner, reddish or brown, mainly built with turning, and include many
A. Neolithic tools. Buni, West Java.

*Upper left* — Pick-adze.

*Lower left* — Faceted grinding stone.

*Lower right* — Pounding stone.

*Others* — Quadrangular adzes.

B. Earthenware vessels. Buni, West Java.

*Left* — Globular vessel.

*Right* — Deformed calabash-shaped vessel.
A. Palaeolithic tools. Sembiran, North Bali.
   High-backed scrapers, upper view.

B. Lateral view.

C. Sarcophagus. Beng, Gianjar, Central Bali.
   Common type sarcophagus, small size, head-shaped knobs;
   trapezoid cross section of lid and coffin. (Reconstructed)
   a-c. Carved paddle (ribbed).
   d-e. Net or crossed design.
   f-g. Incised wave and straight-line pattern.
   i. Plain polished.

   j-l. Net or crossed design on body.
   m. o-u. Dashes, straight lines and wavy lines.
   n. Fragment showing scalloped design on rib of neck portion.
variations of rim forms. The most common decoration is the impressed net or crossed pattern (Pl. III d–e) applied by means of the carved beater. Some rim fragments indicate resemblance in form with the jars of the coarse variety but of smaller size. Plain and polished sherds form part of this second group, some others exhibit various incised patterns (Pl. III f–i). Fragments of foot-rings were not found.

The earthenware of Gilimanuk is closely allied to the Tjekik pottery, in particular to the group of finer manufacture, but is more elaborate in shape and decoration. The pottery fragments indicate forms such as globular pots with differentiated rims or without rims, shallow carinated bowls (Fig. 3 d), double rimmed vessels (Fig. 3 c), and vessels with angles. The usual design of the body is the net or crossed impressed pattern, while other decorations are incised straight or wavy lines and dashes (Pl. III j–u) found below the rim around the neck; one fragment shows a scallop design on the angle. Burnishing of the exterior is remarkable on many of the sherds.

Detailed study on both varieties of pottery is now in progress, but it is already evident that certain elements from various complexes of the Sa-huỳnh-Kalanay pottery have been current in west Bali where an earthenware tradition has developed its regional form.

Flores, Sumba, and Timor

Important material from Flores has become known due to the activities of Dr Th. Verhoeven of the Catholic Mission. His main discoveries made during the last decade concerned vertebrate fossils of Middle or Upper Pleistocene, vertebrates of earlier post-Pleistocene origin, human skeletons associated with a cave culture, artifacts of the cave culture, and material of the bronze culture.

The fossil remains which were found in 1956 in Ola Bula, central Flores, have been studied by Dr D. A. Hooijer of the Rijksmuseum van Natuurlijke Historie, Leiden, who succeeded in determining a new species of the Java Stegodon trigonocephalus which he called Stegodon trigonocephalus florensis. This newly discovered Stegodon is a more progressive type and smaller in size than the Stegodon from Java (Hooijer 1957a). Hooijer also established a new classification of rats of post-Pleistocene age. A new subspecies named Papagomys armandvilliei besar appears to be larger in size than the already known Papagomys armandvilliei (Jettink), the giant rat that is still living in Flores. A new species is called Papagomys verhoeveni, and a new genus Speleomys with Speleomys florensis as its species (Hooijer 1957b). An extinct species of the Varanus has been identified by Dr L. D. Brongersma who created the name Varanus hooijeri for this new species. It shows resemblances to recent Varanus species from Africa and Luzon (Brongersma 1958).

Human skeletal material found during cave explorations in 1951 and 1955 have been studied by Dr J. Huizinga. The skeletons from the cave Liang Momer and Liang Toge show characters which led to the opinion that an extinct group of cave dwellers existed in Flores. According to Huizinga these should belong to a proto-Negrito sub-race (Verhoeven 1958).

Many caves situated in west and central Flores have been investigated by Verhoeven who started the survey in 1950. Van Heekeren made excavations in several caves during 1952 for closer examination. The results of these explorations
point to an extensive employment of a distinct flake industry. The component parts of this industry are mainly crude stone scrapers, points, arrowheads, blades and high-backed cores. Shell artifacts including arched scrapers and points were also disclosed in the caves, but instruments of bone were rare (Verhoeven 1953, and van Heekeren 1955–1957).

Dr Verhoeven continued his explorations on the islands of Timor and Sumba during 1954 and 1956. The material collected from caves in central Timor, in the area of Atapupu, Atambua, Betun, and Besikama, consists of flake tools; lengthy blades and tanged points are prominent in a limited area of the Maubesi river. Shell artifacts seem to be distributed over the whole island. The caves of Sumba, near the villages of Palla, Karuni, and Weetebula, yielded materials of stone and shell which are closely related to the Flores cave material.

The most important find of Bronze Age origin is a bronze dagger discovered in Badjawa, central Flores. It must be noticed here that this is the first dagger found in Indonesia which is entirely made of bronze; another dagger, of which the blade is made of iron, was previously found at Pradjekan in east Java (Verhoeven and Heine-Geldern 1954). Rock engravings were detected in the district of Wolotopo, central Flores. The carved figures picture long boats with high stern and spade-like rudders, a man in a boat wearing a peculiar shock of hair, a fish below the keel, spearheads, socketed axes and the dagger. This dagger represents the typical Dongson dagger which was discovered in Badjawa (Verhoeven 1956).

In his latest reports Verhoeven notes finds of palaeolithic tools in the Liang Rundung area made in 1959 and newly located sites of Pleistocene fossils in the area of Menge Ruda (east of Soa) during the same year. A burial place situated on the north coast of the island of Lomblen (east of Flores) was explored during August 1961. Extended human skeletons and urns containing skeletal material were found but no other artifacts were disclosed in association with these burials. The site has since been destroyed by sea action. A short investigation on hills and caves near the burial site resulted in a collection of small flake tools.

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Soejono, R. P.


Verhoeven, Th.


Verhoeven, Th. and R. Heine-Geldern

This Madagascar section now appears for the first time in *Asian Perspectives* because much of Madagascar's ancestry and culture derives from Southeast Asia, though geographically the Great Island belongs to Africa. In another article here we give a synopsis of past research on the culture, history and archaeology of Madagascar—it is written in French but an English summary is appended (pp. 208–210).

No large scale excavations have been undertaken in Madagascar so far except for the archaeological work started in 1941 by Vernier in Vohemar. The Institute de la Recherche Scientifique de Madagascar (I.R.S.M.), set up in the Malagasy capital after the Second World War, has a Département des Sciences Humaines, with L. Molet as an anthropologist assisted by S. Raharijaona and R. Rason. However, like all O.R.S.T.O.M. centres of the French Community, the Institute was bound to concentrate on applied research and thus archaeology was neglected. Anthropologists from I.R.S.M. (M.M. Althabe, Duran and Roy) are now working on socio-economic surveys; and Robineau, before his return to France had completed an interesting study of the peasant society in Anjouan, Comoros.

Before 1961, when the Université de Madagascar was officially instituted, valuable anthropological work was done under the auspices of the École Pratique des Hautes Études de Tananarive. Courses on Anthropology were taught by Ottino, the author of the anthropological surveys on the Mangoky and Sakay areas; A-M Lavondès and R. Rason organized an exhibition on Malagasy art and crafts, and studied the funeral customs of the south of the Island. And at the request of the Société Centrale pour l’Équipment du Territoire, Suzanne Raharijaona made a survey of Isotry, a suburb of Antananarivo, which was badly destroyed by floods in 1959.

The Université de Madagascar now provides extensive facilities for teaching and research with its schools of Arts, Law, Sciences and Medicine. The École des Lettres (Arts School) includes a Département des Sciences Humaines under the direction of Professor Jean Poirier and offers courses in Sociologie, Ethnologie et Psychologie Sociale. Professor Poirier is currently preparing an important contribution on Malagasy and African legal systems and has initiated a survey of the Bezanozano and Tanala ethnic groups. J. Poirier, R. Rason and S. Raharijaona have already collected much valuable material on the Bezanozano during several field trips, and Vérin recently recorded the traditional history of clans of the Tanala Ikongo area.

Besides continuing this anthropological research, Professor R. Mallet, director of the École Nationale des Lettres, has set up a Centre d’Art et d’Archéologie.
A-M Lavondès is expected to take care of the Art Section, and P. Vérin will be assigned full time to this centre as of November 1962 to work on Prehistory. The Prehistory section of the Centre plans a programme of excavations in various parts of Madagascar which should shed light on the origin of the ancestors of the Malagasy and the time of their arrival on the Island. In this connection, a test excavation was conducted, in April 1962, by P. Vérin and R. Rason on the coastal site of Talaky in the southern part of the island. Two habitation sites were excavated, and though shallow, the deposits yielded large quantities of pottery (piquée and peignée), shell artifacts, stone and pottery sinkers, and iron implements including two fishhooks. The prehistorical inhabitants of Talaky probably saw the disappearance of *Aepyornis maximus*, a giant bird now extinct, whose egg shells are found scattered in the cultural deposit. A carbon sample for dating is now being made.

Of importance is the recent arrival of E. Vernier, now curator of the Madagascar collections in the Musée de l’Homme, Paris—the latter institution is directed by Professor Millot who recently made an outstanding contribution on ancient Malagasy lamps. Before leaving Paris, Vernier had reorganized the Madagascar collections of the Museum. He plans to go on with his work in the Vohemar area and excavate the coastal sites of the ‘Arab trading culture’ which was flourishing on Madagascar’s shores before its destruction by the Portuguese. This ‘Arab’ culture was connected with settlements on the African coast, including Kilwa.

Important results in the field of Malagasy archaeology may soon be expected. Maps showing ancient sites and surface monuments are to appear regularly, and a Musée d’Art et de Civilisation Malgaches, under the auspices of the University, is being planned.

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FIELD WORK

No field work has been done in the second half of 1961 as is usually the case each year at the onset of the rainy season. Only cave archaeology is then possible, but in very few instances was this attempted in the past.

SYMPOSIA AND CONFERENCES

The writer attended the Tenth Pacific Science Congress held in Honolulu from 21 August to 6 September 1961. Unfortunately, he had not come prepared to give a paper on Philippine archaeology; however, he participated in the symposium on Philippine lowland social structure, organized by Frank X. Lynch, s.j., of the Ateneo de Manila Graduate School. No other member of the Philippine delegation read a paper on the same subject. Mrs Kamer Aga-Oglu, a delegate of the United States, dwelt on an aspect of Philippine historic archaeology in her paper ‘Ming Porcelain in the Philippines’ (AP 5, 243–252, with 10 pls). Dr Roger Duff’s paper ‘A proposed typological classification of the neolithic adzes of Southeast Asia’ touched also on the Philippines.

During the 1961 National Science and Technology Week (20–26 November), a series of symposia was sponsored by the National Science Development Board reviewing the ‘State and trends in science and technology in the Philippines’. A sectional session on general anthropology was held in the new Planetarium under the chairmanship of Dr Robert B. Fox of the National Museum. Among the audience were Dr Roger Duff of New Zealand, local social scientists, and Peace Corps volunteers. The writer spoke on archaeology in the Islands, its growth and development, workers as well as its current status and problems.

In mid-December, the writer represented the Philippines at the International Conference on Asian Archaeology in New Delhi, on the occasion of the centenary celebrations of the Indian Archaeological Survey. At the meetings, the writer distributed copies of a mimeographed reading list for Philippine culture-history. He read a paper on Philippine finds from various stations which have been attributed to Indian, Chinese and Siamese sources. The proceedings of the Conference will be published by the Indian Archaeological Survey.

Exhibitions. The excavation team of the National Museum, headed by Dr R. B. Fox, concluded its field activities at Calatagan, Batangas, where late 14th and early 15th century burial and habitation sites have been excavated since 1958 (AP 5: 66–70). In response to public demand and to popularize the range and significance
of the Calatagan finds, a special exhibition was held (in fact it is still going on at the time of this writing) at the National Museum with the financial help of the Research Foundation in Philippine Anthropology and Archaeology, Inc. and private persons. The exhibition was a contribution by the National Museum to the National Science Month (November 1961).

Archaeological collections were also placed on exhibit along with other natural science materials by the National Museum at the new National Library Building in December 1961. These exhibits formed part of a larger Rizaliana and Filipiniana Exhibits of the International Congress of Dr. Jose Rizal, foremost Filipino national hero, whose centenary was the object of nationwide celebrations.

The archaeological portion of the exhibits also featured a chronological chart of Philippine prehistory given here.

### TENTATIVE CHRONOLOGY OF PHILIPPINE PREHISTORY

<table>
<thead>
<tr>
<th>Date</th>
<th>Period</th>
<th>Salient Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.D. 1521</td>
<td>Historic</td>
<td>Magellan; first contact with Western World.</td>
</tr>
<tr>
<td>circa A.D. 1000</td>
<td>Proto-Historic</td>
<td>Expanding external trade and contacts with Asian and neighbouring countries—China, Indo-China, Siam, Borneo, Indonesia and others; first appearance of trade potteries of late T‘ang date; writing appears.</td>
</tr>
<tr>
<td>circa A.D. 100</td>
<td>‘Iron Age’</td>
<td>Iron began to be used shortly after birth of Christ, replacing though not entirely eliminating stone tools; highly decorated and well-formed pottery; wet rice agriculture in Luzon and population expansion; weaving of cloth, and perhaps glass-making; new crops.</td>
</tr>
<tr>
<td>1500 B.C. or earlier</td>
<td>Neolithic Late</td>
<td>Beautifully polished stone tools, mostly adzes rectangular in x-section, bark cloth beaters; shifting agriculture based on ‘dry’ rice, gabi, millet, and other root crops; first pottery appears during this period, perhaps 500 B.C. or earlier; many tools made of nephrite or jade.</td>
</tr>
<tr>
<td>4000 B.C. or earlier</td>
<td>Proto-Neolithic Early</td>
<td>Earlier and different forms of adzes, sometimes round and oval in x-section; shifting cultivation. Roughly worked adzes, with grinding only on blade, first tools of this period; root crop agriculture; small population.</td>
</tr>
<tr>
<td>circa 10,000 B.C.</td>
<td>Mesolithic</td>
<td>Small crudely-flaked tools of obsidian and tektite; probably hunters, fishermen, and food gatherers.</td>
</tr>
<tr>
<td>begins 250,000 B.C.</td>
<td>Paleolithic</td>
<td>Crude stone tools—hand-axes and later tools of the ‘chopping complex’ made from roughly flaked river pebbles; people were hunters, fishermen, and food gatherers; no agriculture. Earliest men similar to Pithecanthropus of Java, and hunted now extinct mammals.</td>
</tr>
</tbody>
</table>
With this issue, the writer terminates his regional editorship of the Polynesian section of *Asian Perspectives*. I should like to express my sincere gratitude for all those who have made contributions to this section during the past four years, including the contributors to this final section Dr T. S. Barthel, Dr Carl Schmitz, Dr Yoshihiko Sinoto, Mr R. C. Green and Dr Richard Woodbury.

**THE TENTH PACIFIC SCIENCE CONGRESS**

Rather lengthy reports of the activities at the tenth PSC have appeared elsewhere (Green 1962 and Solheim 1962a). Only a few of the salient features of the Congress will be reported here, and readers are referred to Green’s summary for more detailed treatment.

Of major significance was the formulation of a Pacific Area Archaeological Program to launch a co-ordinated attack on problems of Pacific archaeology, especially in certain critical areas as indicated by papers presented at the Congress. A resolution expressing the basic concept of the programme was presented to the Anthropology and Social Sciences Section of the Congress who endorsed it. (For details see Solheim’s summary in *AP*, 5[i], 1962: 1-4.)

**RECENT RESEARCH**

The only field research to be reported on at this time is that conducted on Tahiti and Moorea, Society Islands.

From 4 June to 27 July, 1961, Dr Y. Sinoto of the Bishop Museum and Mr Pierre Vérin, ORSTOM, carried out investigations in two sites, Ana Fa’a’ana, Vairao, Tahiti, and Site M5, Afarea’itu, Mo’orea—the former is a bluff shelter, the latter an open coastal site. These two sites were selected with a view of investigating the differences between coastal and inland sites. Storm-wave action appears to have reworked and scattered midden deposits along the coast in many areas, and prolonged occupation of one spot (permitting depth of midden accumulation) seems to have been rare. Shelter sites apparently offer the best possibilities for depth of middens and continuous occupation, although to date none have been very satisfactory including the shelter to be described here.

Ana Fa’a’ana was a small shelter of about 40 square metres in floor area; it had been located and tested by M. Pierre Vérin in February 1960, at which time hearths and cultural materials were found. In three weeks of excavation, most of the site
was investigated. Three distinct occupational levels were uncovered, the uppermost of which was post-European in age. The middle level about 30 cm. thick was the main occupational level, containing fire places, postholes and slabstone post bases. The lowest level contained large earth ovens with cooking stones and charcoal. Artifacts were sparse including pearl and turbo-shell hooks, stone-adze fragments, and worked shark and pig-teeth.

Site M5 at Afarea‘itu, Mo‘orea is part of a coastal plain village of about 30,000 square metres in area. Prolonged testing for productive midden deposits resulted in the location of a 45 cm. deep deposit, with three distinct occupational levels. The middle and lowest levels contained architectural remains: a small curbed pavement and stone post-braces, respectively.

Artifacts included hooks of both 1-piece and composite type, hook blanks, coral files, shell sinkers, coral rubbing stones and worked shells. Adzes (triangular section) were found on the surface only.

From 19 December 1961 to 1 March 1962 Mr Roger C. Green of the University of Auckland carried out excavations under the sponsorship of the American Museum of Natural History, as a continuation of the programme described in the earlier issue of AP. Four major investigations were carried out:

1. Site So Mo—163—Marae Titiroa. Stratigraphic excavations around the marae wall uncovered evidence of an occupation preceding the building of the marae, evidenced by numerous pits and postholes. Human burials associated with the marae phase of the site were uncovered along the rear wall. These excavations and investigations of architectural features in the marae interior produced considerable information on their construction.

2. Site So Mo—129—A marae of the coastal type. Excavations revealed a sequence of four layers of alternate occupation and infilling; its base course was of cut stone.

3. Site So Mo—158—an assembly house. It was the largest round-ended assembly house of its kind in the valley and was associated with an ‘Inland’ marae and two pavements. The site was almost totally excavated, revealing a sequence of five occupations. On the earliest level were numerous pits, postholes and drains, above which were two successive strata in which first a flat dwelling area was made with clay fill and then more postholes and pits dug. Atop this stratum the assembly house, a long terrace and a marae were constructed; when the assembly house was demolished, a smaller house was built within its confines. Carbon-14 samples were obtained from each level, and artifacts were also obtained in stratigraphic context, as were architectural data.

4. Site 103 C—rectangular stone-house site associated with a large round-ended meeting house. Four occupational levels were discernible, again beginning with a stage containing pits and postholes. Adzes, food remains and wood specimens were all recovered in stratigraphic context.

Besides these major excavations, six of a more limited type were conducted (1 house site, 5 marae sites), producing evidence of stratification and resulting in the recovery of more stone artifacts.
Laboratory Research

Recent laboratory research by Dr Yosihiko Sinoto on Polynesian fishhooks has produced interesting indications of the importance of one-piece fishhook head forms for relative dating, as well as for indications of culture contact. A full report of this work appears in the June 1962 issue of the Journal of the Polynesian Society, a summary of which is given here.

The typology of hook heads is based on formal characteristics: notches, knobs and projections required for lashing hooks to the line. The typology has proved successful in the relative chronological ordering of Hawaiian sites and may be extended to other areas of Polynesia. On the basis of comparative studies, Sinoto thinks that it may be possible to associate certain hook-head types with particular island groups and thus trace culture contact.

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BOOK REVIEWS


Firth sets himself to investigate the social functions of historical traditions in modern Tikopian society. His study thus differs considerably from studies of traditions in Polynesia and elsewhere where they have been approached from an entirely literary point of view, or as a source of historical data for culture-history reconstructions. Firth is also not interested in proving any theories of the psychic bases and functions of myth. His study was begun some 20 years ago, but the analysis was completed in 1958-59 as a part of an Advanced Study in the Behavioral Studies at Stanford.

In a brief introductory section, Firth discusses the orientation of his particular investigation and defines it in relation to other types of traditional studies. He then examines problems of collection and classification of traditional material. He concentrates mainly on that type of tradition known in the native classification as tara tapu, which are narratives or incidents concerning events remote from the present involving either ancestors or supernatural beings.

Firth's main section is devoted to a detailed presentation and discussion of the data; he proceeds very carefully to note the existent variations of the legends and the inconsistencies and possible parallelisms.

A chapter is devoted to the origins of Tikopia and its people. Firth notes that the Tikopia are not interested in the origins of islands and men, in general, but are rather egocentrically interested in the first men on Tikopia. No stories of creation of the type found elsewhere in Polynesia exist in Tikopia. During his first field trip, Firth did, however, manage to collect a Polynesianized version of the creation genesis from a sophisticated chief.

The origins of the major lineages are next discussed. There were 23 lineages in all, of which five were indigenous, six claimed to be remnants from the four chief lineages of the island and four claim to be remnants of earlier lineages that were expelled or wiped out. Particular attention is paid to the Kaiku lineage which is the highest ranking in the island at present and validates its claims by tracing relationship to the Pu Ma twins who first inhabited the region of Kafika on Tikopia.

The supremacy of the Kafika clan is not universally supported, however, for the traditions of other lineages contradict those which the Kafika use to validate their position. It is interesting to note that length of genealogy is not the criterion for status of a lineage, but age of ancestry, which in Tikopia is not necessarily associated with genetic lineages. Traditions of the emigrant lineages from Tonga, Uvea, Rotuma, Samoa, Taumako (Duff Is.), Ontong, Java and Anuta are also discussed. A considerable time presumably elapsed between the settlement of the island and the arrival of these emigrant groups.

The next chapter is devoted to a study of Saku, Te Atua i Kafika, or the supreme deity of the Kafika clan. This god was most feared in all the Tikopia pantheon, and was also revered as a culture-hero, and credited with the introduction of many traits into Tikopia culture. It is interesting to note that Saku was of mortal birth despite the high level of prestige to which he rose. His high prestige is mainly attributable to the circumstances of his death, when he refused to shed the blood of his assailant and thus gained the right to the mana of the other gods.

A chapter is devoted to the supposed Tongan invasions or raids which were apparently numerous and marked by considerable ferocity. Firth points out that the invaders may actually have been Samoans. The Taumako lineage plays a major part in the repulsion of a particularly well 'documented' invasion, and certain individuals of that lineage are remembered as heroes of the occasion.

Another chapter is devoted to traditions of internal problems of the Tikopia arising from power politics, often elaborated in the extermination of one lineage and the expulsion of another. The resettlement of lands vacated in these struggles and a period of overseas voyaging is described in the final chapter of the section presenting the data. This chapter is of particular interest to students of prehistory in its discussion of the rather extensive traditional evidence for voyaging to and from Tikopia. Firth points out that the canoe voyaging, foraU, is a recurring element in Tikopia history. Out-going intentional voyages were undertaken, as elsewhere in Polynesia, because of warfare, population pressure, shame or adventure. Firth cites some interesting quantitative data on such voyages in a generation period of which only partial accounts are available, over 100 individuals went voyaging, of which over half failed to return, 12 died overseas and a third actually got back mainly with European aid. In the post World War II period some 30 voyages were attempted in which 80 died and 20 survived. In the past, as at present, such intentional voyages were made largely by bachelors, a very significant point for those who hold to theories of accidental settlement and population of Polynesian islands. Such foraU voyages are not done randomly, but apparently were undertaken as a result of a kind of 'fad' motivation that lasted for varying periods and then died out. Quite often, when the higher ranking chiefs of Tikopia were off on foraU, search parties had to be organized to try to find them and induce them to return.

In his interpretations, Firth returns to the matter of voyaging, and finds the propensity to engage in intentional voyages of adventure, trade, exploration, etc., as one of the major themes of historical traditions in Tikopia, ranking only with the theme of attempts at property and power acquisition. Tikopia is viewed as an 'agglomeration of drift or exploratory voyages' from two major arcs of islands: a Polynesian-Melanesian arc of islands situated between 70 and 550 miles away, and a purely Polynesian arc of islands situated between 800 and 1,300 miles away. Although relationships...
between Tikopia and the Ellice group are apparently clear on an ethnological basis, there is no
legendary evidence to support this, neither does any exist for a possible Fijian population substratum
as had been theorized.

Firth eschews any detailed historical reconstructions, stating that one can only go back to the
19thcentury with any certainty at all (derived from external sources) and beyond the 17thcentury
(genealogically very little is clear).

Firth concludes that traditions play both unitive and divisive roles in Tikopia culture. They serve
as standards for cultural values and ethics and furnish validation for behaviour by projecting into
the past. Further, they maintain the identity of Tikopia society.

The most interesting of Firth’s conclusions concerns the divisive aspects of Tikopia tradition
which are seen to possess an instrumental use, enabling cultural sub-units to use them as authority
to validate their own positions. Traditions of importance to these sub-units are remodelled by each
generation to fit the social situation and needs of the time; hence, they are not as much reflections
of the past as they are elements from the past reflecting in their reconditioned state the social organi-
zational problems of the present. Actions in the traditions are seen as expressions of the actions
(usually violent) the modern Tikopia would like to take in matters of property disputes, prestige
struggles, etc. Firth points out that such traditions serve completely conflicting ends in the hands of
opposing social units. It is submitted that the lack of validity of the traditions is further demonstrated
by the poor correlation between the prestige rankings of major lineages and the traditional rankings
 accorded to them.

The volume is well written and handles a wealth of complex data easily: no one can fail to admire
the persistence and skill of the author in his careful field collection and documentation of the native
traditions in the vernacular (a sample appears in the appendix) and his grasp of the entirety of Tikopia.
Next, traditions have a number of very serious implications for prehistorians and archaeolo-
gists (including the present writer) who have used traditions in their interpretations. Firth would
seem to preclude any real penetration of prehistoric social, political, economic and religious condi-
tions by traditional study with his conclusion on the instrumentality of traditions. This does not, of
course, mean that one can also conclude that culture trait details mentioned in traditions are also
generally more recent, however. Further, it does not impede the study of the literature as such,
nor does it cast shadow on attempts to trace connections and reconstruct broad palaeoanthro-
pological forms.

Further, the data on prehistoric voyaging noted above are particularly interesting in that they
seem in many ways to bear out the views of the older traditionalists on this particular topic and
mitigate against the views of Sharp and his adherents.

There may be many who differ with Firth’s conclusions and his method of handling his impres-
sive array of data, but it is certain that no one working with Polynesian legends can overlook his great
contribution. It is highly recommended to the archaeological fraternity of whatever persuasion.

URBAN, MANFRED. Die Haustiere der Polynesier: Ein Beitrag zur Kulturgeschichte der Südsee. Völker-
kundliche Beiträge zuer Ozeanistik, Bd. 2, Buchhandlung Dr Ludwig Hützschel. Göttingen
1961, 367 pp., 24 photos, 5 maps, 1 appendix, DM 70.

Urban’s volume is of a much different nature than that of Firth’s. In an attempt to reconstruct
the history of domesticated animals in Polynesia, Urban has scrupulously combed all available
historical and traditional sources for data. He summarizes these, in an island-by-island review, then
enters into a detailed discussion of each animal (dog, pig and chicken) and its role in the native culture.
Finally, a reconstruction of the diffusion of these animals is attempted. Urban concludes that the
animals were brought to each island in a haphazard fashion, the dog entering first, possibly with a
pre-Polynesian population, while the pig and chicken entered later. Diffusion may have come from
Melanesia, but not from the New World. Gaps in distribution are produced by ecological as well as
historical processes, however. The wealth of clearly-presented data will help considerably in inter-
pretation of archaeological finds and is highly recommended to prehistorians.

R. C. S.


The renewed public and professional interest in the prehistory of the Pacific, especially of
Polynesia, have lead to an increasing number of controlled excavations in its major island groups.
Although preliminary reports have appeared in journals, fuller details only now begin to appear in
monograph form. There is now a demand for books which will interpret major findings with
breadth and imagination in scholarly manner. If the present appetite for books on Polynesian
prehistory is not to be entirely whetted in shunting from raft to raft or spiced by an
aku-aku, then
the writing of books like Island Civilizations of Polynesia are to be encouraged.

The argument, ‘Archaeologists have an obligation to serve the public’, is to see that their
achievements reach an interested non-professional audience in a sufficiently clear and precise form

1 P. R. Ducey: Comment on W. H. Sears, ‘The study of social and religious systems in North
that their efforts be not wasted. For if they 'do not interpret their findings for the public, others will. This alternative is hardly desirable'.1 This is especially true in an area like Polynesia where a vast folklore has grown up around the origin, manner of settlement, and culture of those intrepid voyagers who first settled this island paradise. We only ask that the author of a popular book sort out from the vast bulk of materials, the pertinent facts, and present them, with recent major findings by himself and his colleagues, in a coherent manner. In a professional journal we also ask that the book serve as well for the specialist from another area or discipline, whether student, teacher, or scholar in this field.

Disregarding this second question, I find in Suggs an admirable and comprehensive popular account of Polynesian prehistory. His archaeological discoveries in the Marquesas gave him a fresh perspective on the subject. While unavoidably weak in places—because results from recent investigations were not then available—and of necessity filled with reasonable conjecture to preserve continuity, in the historical gaps where our evidence is presently insufficient or inconclusive, the essential outlines of his interpretation of Polynesian prehistory emerge clearly and are of genuine interest. They provide an effective balance, although and at times needlessly personal one, to those theorists who maintain we must look to other areas, dismissing eastern Melanesia, the north New Guinea coast, the Philippines, Formosa and the South China coast-Indo-China area which Suggs suggests for the earlier Polynesian homelands. To this effect he presents the prevailing weight of modern botanical, zoological, racial, and linguistic evidence for an origin in this area. The archaeological evidence, however, is not as satisfactorily, or as well handled.

After sketching the prehistory in the area up to World War II, and presenting his views on the nature of Polynesian voyaging, in the core of the book Suggs deals, chapter by chapter, with a survey of the traditional cultural, and available archaeological evidence for the settlement of the larger island groups of Polynesia. While the development of a distinctive culture in each group is traced, the popular presentation of his Marquesan sequence is without doubt the most satisfying, because it is the only one over which he exercised full control of recent archaeological data. In bridging gaps in other sequences, it is not surprising that at times they take on a slight Marquesan colouring. However, one need not object to this for it will have to be modified with time and further information.

On the other hand, scholars, students, and specialists from another area or discipline may find certain aspects of this book disconcerting. Theories and conjectures on one page have a tendency to become the factual basis for further speculation on another. More irritating are a number of factual errors, imperfect footnotes, and a failure to construe precisely the meaning of some of the source material that is cited. The book shows traces of too great haste and lacks the type of scholarship which one assumes gives the archaeologist an initial advantage over the popularizer in the presentation of his data. It is to be hoped that in future editions the necessary revisions will be made. However despite what has been said, the book can be recommended to the general reader as well as to the specialist who will find in Suggs's more general interpretations a fruitful basis for discussion.

R. C. Green
University of Auckland
1962

1 Ibid.
New Zealand

ROGER DUFF

Received 12 April 1962

[As New Zealand Editor of AP, I acknowledge my gratitude to my colleague Ronald J. Scarlett of the Canterbury Museum who at short notice prepared the bibliography and commentary.]

FIELD WORK

North Island

The Auckland University Archæological Society continued work on the Coromandel sites, the primary association of the Moa remains being established. Two species of Dinornis were predominant, and smaller species also present (identification by R. J. Scarlett, Canterbury Museum). The Society carried out salvage excavation at Mt. Wellington and elsewhere, and began excavations at Kauri Point Pa, Bay of Plenty (all classic Maori sites). Work continued at Ohawe and Waingongoro, near Hawera, the original Moa-hunter site of Mantell. Here again Dinornis was among the species of Moa recovered in primary association. In conjunction with a single bone of Dinornis recovered from a midden in the Wellington area a few years ago, this provides strong evidence that this largest genus of Moa was widespread in the North Island in Moa-hunter times. In the South Island there is little record of it in association with Moa-hunters except in the Murihiku area in the far South.

Other groups scattered throughout the North Island were also active, and considerable field work, both in recording and excavation, has taken place.

South Island

Canterbury Museum continued work at the Ngati Mamoe pa, Pari Whakatau, in Marlborough, and at Moabone Point Cave, Redcliffs, near Christchurch, the scene of Von Haast’s activities in 1872. A Museum party found the first Moa-hunter site to be recorded on the west coast of the South Island, at the Heaphy river. Excavation has begun, and will shortly continue. Rock drawings have been recorded, and much field recording and site surveying done. Otago has also been active, with excavations at Stewart Island, Tairua, and elsewhere.

N.Z. Archæological Association

Summaries of much of the work have appeared (for lack of space in other journals) in the Newsletter of the New Zealand Archæological Association. The latter continues to grow in membership and participated in the 1960 Congress of
the Royal Society of New Zealand as a full section. Among other work, it is currently trying to get 'teeth' put into the laws for the protection of important sites. In summary, archaeology in New Zealand continues to flourish, and despite the regrettable activities of some private collectors of the predatory type, the growing body of trained archaeologists attached to Museum and University Societies ensures that more and more of the digging will be of high standard, under properly controlled conditions.

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**Book Reviews**


The last six months of 1961 mark an important event in Australian anthropology with the establishment of the Australian Institute of Aboriginal Studies by the Commonwealth Government. It has an Interim Council of 16 members from universities, museums, parliament, government departments and in private life; the Executive Officer is Dr W. E. H. Stanner. At its inaugural meeting in November, the council decided to publish the data papers and discussions of the Conference on Aboriginal Studies held in May 1961. The Institute intends to promote research work in all fields of Australian anthropology and archaeology and, in particular, in those fields where time is running short and the need to record data is urgent.

Mr Mulvaney (1961) has provided a most important discussion of Australian prehistory. After considering the evidence most judiciously and cautiously, he gives his judgment on several basic problems which lead to a controversy between the archaeologists of Sydney and Adelaide. In his introduction, Mulvaney discussed the probable existence of a fertile environment in Australia with giant marsupials roaming the land and man arriving in that environment, probably after Late Glacial times. The eustatic changes in sea level and routes of migration; Gill’s carbon-14 dates of 18,000 and 15,000 years B.P. for the Keilor site; and Spencer’s view that the culture of the Aborigines was a static one nurtured by isolation and material rather than by diffusion and advancing knowledge are among the topics discussed.

Mulvaney is of the opinion that the Kartan implements need more precise definition, particularly the flake ones, both in Australia, Sumatra and Southeast Asia, before relationships between Kartan and Hoabinhien cultures can be defined more clearly. On the whole, he thinks that the available evidence supports the view that Kartan is earlier than Pirrian in Australia. The settlement of Kangaroo island is discussed in the light of eustatic changes of sea level and the use of rafts or canoes between the mainland and the island. Mulvaney points out that the Gambieran culture from south-east South Australia is not substantiated by stratigraphy, and there was no evidence that it is an ancient culture in Australia.

The Tartangan, he says, is a term that should be abandoned. The implements from the type site are unspecialized types found in many industries, with the exception of six adze stones. No real evidence supports Tindale’s grouping of the Tartanga, Cape Martin, Hood’s Drift, Lake Menindie and other mainland sites, and his Older Tasmanian, as one culture; nor is the jimari knife a sound comparative
trait. All that exist are three industries, dated from 6,000 to 9,000 years on the basis of one carbon-14 test for each site, which cannot be regarded as one culture.

The Pirrian is accepted by Mulvaney as a fully substantiated culture but Tindale's claims for its Australia-wide occurrence are shown in a distribution map to be fallacious. The development and relationships of the uniface, biface and dentated points in Australia and Indonesia, the relationship of the geometrical microliths to the *pirri* and *Bondi* points, and the confused stratigraphical position of the geometrical microliths in various sites, are discussed. Mitchell's claim that the microliths are end products of use is rejected. The validity of the Mudukian culture is questioned on the grounds that the *muduk* bone point occurred above the geometrical microliths at both lower Murray sites excavated, and not with them. I am inclined to believe, however, that the *muduk* will prove to be an important index trait in the future because of its wide geographical and temporal distribution, although Mulvaney thinks it has no cultural significance.

Problems concerning the origin and antiquity of the flake adze, and its possible occurrence outside Australia, the chance nature of the burin in Australia, and the probability that the possum jawbone engraver took its place, are discussed. The diffusion of edge grinding of axes from Melanesia is regarded as probable, but in the absence of stratigraphic and ethnographic evidence, Mulvaney questioned the diffusionists' view that the pecked and grooved axes were the last to develop—there are several indications to think that they may be early forms.

Mulvaney points out that the occurrence of adze-like implements, and the presence of Mousterian-like blades, were features of Tasmanian implements, notable by the general absence of Pirrian and post-Pirrian Australian types. He is of the opinion that Tindale's Older and Newer Series in Tasmania were invalid from the evidence now available. He agrees with other writers that systematic excavation work in Tasmania is urgently needed.

The failure of Tindale's attempt to align the whole of Australia's prehistory with his subdivisions of the implements from the lower Murray excavations is stressed, for he went to the point of disregarding new data now available which completely nullifies this approach. Mulvaney on the other hand, calls for caution in comparative work of this kind. He disapproves of the use of such names as *sumatralith* in Australia because the relationship is prejudged, and believes that the assemblages in levels are better compared by site designations than by culture names which are not based on sound stratigraphic and typological grounds. He recommends that the nomenclature proposed by McCarthy should be the standard for future reference in Australia.

In field archaeology a preliminary report was published by Tindale (1961) on the results of an excavation at Noola, in eastern New South Wales. The ethical implications of this excavation, and the designation of the material obtained from the site, are to be discussed in a forthcoming paper by McCarthy. Mitchell gives a brief but valuable description of the Mt. William and other axe quarries in Victoria. Quarries are an important field of study in Australia where wide trading relationships of stones for making axes, flake adzes, biface points and other implements, and of the implements themselves, was the rule, and accurate mineralogical identification of the materials and their sources will clarify many of the trade routes
and areas of the dispersal of implements from a specific quarry. The relics in situ in Western Australia are at last receiving belated attention, and Davies's description of stone arrangements, cave paintings and rock engravings in the Murchison district is one of the papers published by various writers on these relics in the last decade.

An illustrated booklet, with brief text and excellent photographs, has been published by Mountford (1961). Lommel (1961) compares the X-ray cave paintings of Arnhem Land with examples in Norway, Spain, India, Asia and New Guinea; the examples from Norway, China and New Guinea appear to be the most convincing comparison outside Australia. Lough (1961), in describing rock engravings in the Sydney district, notes important results obtained by the Coast and Mountain Bushwalkers in recording grooves, indiscernible in daylight, but revealed with strong torches at night. By this method, a whole series of prehistoric figures, the work of past generations now almost faded away, has been recorded. In an important discussion of 'Ethnological' art, Haselberger draws attention to the need for the study of bark, sand and wood murals of the Aborigines, in particular for the study of the traditional art, and tourist art, in Aboriginal cultures.

Tiny Depuch Island, whose remarkable rock engravings fashioned in a classical pecked style are described by McCarthy (1961), is to be transformed into a deep-water port for the shipping of iron ore from north-western Australia. Western Australian archaeologists and their colleagues are bestirring themselves to ensure that every precaution be taken by the constructing authorities and the government to safeguard the engravings. This island gallery of prehistoric art, containing several thousand figures, is one of the finest so far discovered in Australia.

One of the really rare items in Australian material culture, the human-skull drinking cup, is described by Massola (1961). He has traced 6 specimens in Australia, 3 in Italy and 2 in England.

Stanner (1961) makes an extraordinarily interesting account and analysis of the Rainbow-Serpent myth in the Murnibata tribe of the Northern Territory. It is a riteless myth, and the cave paintings (of which he figures five examples) associated with it do not appear to function any longer. McCarthy (1961a) has pointed out that the most important feature of the Bagadjimbiri brothers (or Mungan of the Gnarla and Kariera) myth of north-western Australia was that they introduced circumcision with a stone knife (djimari), and the possibility of correlating various mythologies by this important custom should be explored.

Ruggles-Gates (1961b) claims that the Aborigines have a natural ancestor in the Neanderthaloids of Mt. Carmel, from where they crossed India and pushed south via Burma and New Guinea. Kabo (1961), in a Russian paper, discusses the origin of the Aborigines.

**FIELD WORK**

Field work in progress marks the first archaeological venture by the University of Queensland with an investigation of the Carnarvon Ranges where great friezes of unusual and archaic rock engravings are associated with the equally archaic stencils on the walls of extensive rock shelters—excavations of the floors have begun. Archaeologists R. V. S. Wright and J. Megaw, of the University of Sydney,
have begun reconnaissances in the Hawkesbury and George's river areas to locate sites for excavation this year. Mrs T. Kemp, formerly of Harvard University, has begun work on a typology analysis of Tasmanian stone implements, with the collection in the Australian Museum for starting point. Mr John Matthews, the first Research Scholar in Archaeology at the Australian National University, is investigating the uniface pebble industries in Southeast Asia, Indonesia and Australia.

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1961a The emergence of racial genetics. *Mankind Quart.* 1: 11–22. Account of a trip to see American Indians, Eskimos, Australian and New Guinea natives, in which it is said that the Australian Aborigines have a close relationship with the Caucasoids, they have one major gene for skin colour, and the Barrinean type was the first to inhabit Australia.

1961b Australoid tribes in India. *Mankind Quart.* 1: 83–88. Postulates that the Australian Aborigines have natural ancestors in the Neanderthaloids of Mt. Carmel and Mohanjo-Daro. They entered India at the latter point, multiplied in central and southern India where many Australoid tribes exist, and pushed south through Burma and New Guinea into Australia.

HASELBERGER, H.
1961 Method of studying ethnological art. *Current Anthrop.* 2: 341–84. In this detailed discussion of various approaches to 'ethnological' art are a classification of art styles, and the kinds of study still needed in this field, particularly among living peoples, Recommends that more field work be done in Australia of the traditional and also of the tourist art of the Aborigines.

KABO, B. P.

LITCGOW, G. W.

KITCHING, H. S.
1961 Observations of customs associated with Kadaitja practices in Central Australia. *Oceania,* 31: 210–14. Refutes the misconception that kadaitja had ceased to function, records recent deaths due to its use. Points out that the shoe tracks can be followed up but fear usually prevents this being done, and that the breaking of the little toe by the wearer is somewhat doubtful.

LOMMEL

LOUGH, J.
1961 Aboriginal rock carvings around Sydney, and Bushwalkers. *The Bushwalker:* 38–61. A brief description of the mode of life of local Aboriginal tribes is given, and of their rock engravings. Bushwalkers are requested to report the discovery of new sites and to further in every way the protection and preservation of this art. The use of strong torches at night for recording these engravings, used by the Coast and Mountain Bushwalkers with great success, is described.
McCarthy, F. D.  
1961a The Story of the Mungan or Bagadjimbiri brothers. *Mankind*, 5: 420–5. The Njamal and southern Njangu-mada versions of the myth are compared with the northern Njamal version, the Njamal are less complex, and lack certain features of the latter. The myth relates the story of two big brothers who travelled through the country singing songs about places, animals and plants, creating geographical features, introducing various weapons, instituting circumcision and submission with the djimari stone knife, and finally going up into the sky at death.  


Massola, A.  

Meggitt, M. J.  
1961 The Bindibu and Others. *Man*, 61: 172. In a letter points out that the kadaitja shoes are really worn by the members of such a party in the Walbiri, Yannmadji and Yaluwara tribes; that the Walbiri tribe is increasing at a relatively high rate; and that the chewing of an indigenous tobacco mixed with the burnt leaves of a grevillea is customary among the Walbiri, Pijandjara, and Kalkadoon tribes. The author is commenting upon articles by Dr Donald Thomson in *Man*, 60(228) and 61(2).

Mitchell, S. R.  

Mountford, C. P.  
1961 *Aboriginal Art*. Longman’s Art in Australia Series. Brief introduction to subject, with 28 photographs of cave paintings, rock engravings, portable and ground art.

Mulvaney, D. J.  

National Trust of Australia (N.S. Wales)  

Stanner, W. E. H.  
1961 On aboriginal religion: IV. The design plan of a relentless myth. *Oceania*, 31: 233–58. The Murinbata tribe’s myth of the Rainbow-Serpent (Kunmanggur), and three fragmentary versions from the Marithiel, Wagaman and Nangiomeri tribes. The myth is analysed in great detail and its main structural plans compared with those of the Punj myth and rite. Five cave paintings of the rainbow serpent are illustrated.

Thomson, D. F.  

Tindale, N. B.  
1961 Archeological excavation of Noola Rock shelter; a preliminary report. *Rec. S. Aust. Mus.*, 14: 193–6. An industry of Bondit and Wook-wine points, discoidal microlithic adze stones, ground-edge axes, bone points and spatulas, with living mammal bones, identified as Mudukian culture, below which was found an industry of simple flakes identified as Tartangan culture.
Burkitt, M. C.
Australian rock art. *Nature*, 4791: 854. Notice of two papers by F. D. McCarthy on cave paintings and rock engravings in eastern New South Wales, with the suggestion that a two-volume work on Australian Aboriginal Art should be published.

Elkin, A. P.


1961b *Records of the American-Australian Scientific Expedition to Arnhem Land, 1948*, vol. 2, Anthropology. In his review, the author discusses the important points brought out in papers on the health and nutrition, diet, economic life, archaeology, cave paintings, string figures, hair and finger prints. He refers to several of the papers as unrivalled accounts in their various fields.