The evidence for human life since its first appearance in Indonesia is very plentiful, so much so that it permits us to formulate a complete sequence for Indonesian prehistory. Nevertheless, many matters still remain to be explored, including dating (a principal basis upon which to conduct evaluation of data with precision) and the interrelations of various cultural traits. The successes which have been achieved so far cover various aspects of life, many of which have been placed within a chronological framework which is becoming steadily more reliable.

The formulation of a chronological framework for Indonesia was begun by P.V. van Stein Callenfels (1926, 1934), later extended by R. von Heine Geldern (1936, 1945), A.N.J. Th. à Th. van der Hoop (1938), and ultimately completed by H.R. van Heekeren (1958, 1972). It now has reached a level of comprehensiveness, both from the standpoint of the materials recovered and the approaches to them (Soejono et al. 1984). The resulting synthetic depiction includes many elements of prehistoric life, especially technological aspects, elements of material culture, behavior and spiritual concepts, and aspects of environment.

The description of life during the period of hunting and gathering covers humankind's evolutionary aspects, several forms of material culture, and the condition of the natural environment during the Pleistocene Epoch. In contrast with the rest of Southeast Asia, in Indonesia the physical evidence of Pleistocene humans is nearly complete in a stadial progression from the most primitive form up to the modern. The range of implements made during that stage of existence, especially in the form of massive tools and flakes, is also quite well represented in various parts of Indonesia.

During the following phase of advanced hunting there are several patterns of life which were carried on mainly in caves and along the coast. The range of implements available to support human existence included tools made from stone flakes, bone and shell artifacts, and massive monofacial oval stones (Sumatraoliths). A form of cave burial, which provides the first evidence of human burial in Indonesia, and paintings on cave walls which express aesthetic and religious emotions, complete the evidence for human achievements during this phase.

Evidence gathered form the early agricultural phase is widespread in the islands of the archipelago. This evidence forms principally a variety of types of stone tools, neatly worked and commonly polished, made from siliceous rocks. Polished adzes, bracelets (also polished), arrowheads and bark cloth beaters all occur. Simple forms of earthenware with cord-marked decoration formed entirely by hand-moulding constitute the first indication of a tradition of earthenware production. The limits of distribution for some types of polished axes have been estimated for Indonesia, with divisions into areas with quadrangular adzes, oval axes, lenticular adzes and pick adzes. Evidence of settlements of this period is very rarely found and occasionally such discoveries are mixed with elements from later or earlier periods.
The Phase of Craftsmanship (Masa Perundagian, or Bronze/Iron Age) is a period of complexity, whether seen from the aspect of man-made artifacts or the ideology reflected in their characteristics. Signs indicate the rise of technology, especially in the production of objects of metal and earthenware. An important activity of this phase is an intensification of construction, especially of megaliths which functioned in the realm of religious thought. A variety of specially-shaped bronze artifacts (drums, vessels, ceremonial axes, figurines and so forth) and complex methods of production appear in areas principally located along maritime communication routes.

Megalithic remains are spread over a large part of the archipelago. The range of early metal technology illustrates a way of life with potential for higher development in subsequent periods. Cultural elements include a system of permanent settlement, social organisation on the basis of a division of skilled labour, mastery of technology for producing artifacts and materials for sustaining life (both material and spiritual), conduct of communications over a broad region useful for exchanging technology and ideas, and religious thought centred on the worship of ancestor spirits.

REGIONAL CONNECTION

Data collection has yielded a comprehensive and coherent picture of human conditions in Indonesia. The framework of cultural events has been mainly arranged on the basis of cultural and non-cultural objects with distinctive characteristics, which can be located in chronological order on the basis of typology. Certain types of object have been utilised to outline cultural assemblages which occur across very wide areas; for example, chopper-chopping tools, flake-blades, quadrangular adzes, bronze, megaliths and so forth, each of which possesses an individual pattern of development. Therefore, the nature of prehistory in Indonesia is always linked to developments occurring over a wider area, that is, in Southeast and East Asia.

This broader scope was realised by von Heine Geldern and van Stein Callenfels in the early stages of formation of Indonesian prehistoric chronology. Van Stein Callenfels constructed a periodization of polished axes (or adzes) in Southeast Asia by assuming that Indonesia formed part of a developmental context within the Southeast Asian Neolithic. At that time the division of prehistory into time periods was still at a preliminary stage and only took account of Neolithic artifacts which were believed to indicate migrations of people in Southeast Asia. Van Stein Callenfels' concept took the form of four types of axes or adzes which developed sequentially in Southeast Asia: the oval axe as the indicator of the oldest phase, followed by transitional forms with rectangular cross-sections and a fourth and final phase marked by a quadrangular adze. The shouldered type of axe also developed in mainland Southeast Asia during this fourth phase.

Data regarding the pre-Neolithic stage were collected, studied and interpreted bit by bit, without observing interconnections between them. Van Stein Callenfels viewed his own divisions as a first approximation toward a better form of periodization. The pre-Neolithic data cover phases such as the Basconian in Vietnam and the Hoabinhian in the Malay Peninsula and North Sumatra. During this phase, only implements with Palaeolithic characteristics were known, until the final stage of its development, evidence of which was only known from the Malay Peninsula, when polished implements (proto-neoliths) and earthenware began to be known.

Van Stein Callenfels' chronological divisions constituted a pioneering effort of fundamental importance in prehistoric studies. Subsequently, Indonesian prehistoric chronology experienced several episodes of improvement and addition of new elements to the framework. If we agree that the development of prehistoric study should strive for a way of depicting prehistory completely covering all aspects of human life from the beginning to the end of prehistoric time, then it is necessary to observe two approaches which have determined periodization and interpretation. The first is the use of definitions and terminology taken from the context of European prehistory. The second is the use of data from Southeast and East Asia as comparative material with which to consolidate definitions and conclusions regarding Indonesia.

The first characteristic of interpreting Indonesian prehistory in European terms lasted until near the time of World War Two, particularly in the interpretation of data on the earliest Stone Age cultures, such as those from Pacitan, Sangiran, Ngandong, northern Sumatra, Sambung and so on. This characteristic was gradually replaced and just a few classificatory terms for western European tools are still maintained, especially to denote technological characteristics without cultural connotations, such as the terms Clactonian and Levalloisian for the characteristics of stone tools from Sangiran and Pacitan.

Until the Second World War, regional connections beyond Indonesia were still built upon limited quantities of surface finds, so that interpretations had to be complemented with material from a broader area. Prehistoric research was then being encouraged in continental
Southeast Asia, particularly in Vietnam, Cambodia and the Malay Peninsula. Connections were increasingly broadened to include island Southeast Asia and mainland China. This broad geographic range could not be avoided if it was intended to create a chronological and comprehensive depiction of Indonesian prehistory. An even broader scope of relations with regions of the Pacific, mainly in regard to Neolithic and Megalithic data, was already beginning to be examined as the number and variety of discoveries increased.

NEW PERSPECTIVES IN SOUTHEAST ASIAN PREHISTORY

The above depiction of prehistory demonstrated deficiencies and difficulties which needed to be surmounted in order to expand the boundaries of confidence in the continuity of facts. A pattern of thinking was followed which was believed to be universally valid for prehistoric development, focused on the existence of stages which proceeded increasingly higher along a path of increasingly developed types and technology. This formation was consolidated so that each phenomenon or trait seemed to have a place already predestined. Consolidation was based upon several principals, generally followed by archaeologists before and just after World War Two, particularly the use of object typologies and stratigraphic positions to determine age; and ethnographic analogy to support data explanation. This traditional approach to prehistory then underwent change of an apparently fundamental nature with the application of new methods in data interpretation, particularly dating techniques (mainly radiometric methods, palynology and so forth) and techniques of materials analysis, in addition to advances in theory and method in archaeological interpretation.

A new perspective on Southeast Asian prehistory began to arise after several significant discoveries in Thailand during and after the 1960s, at sites such as Spirit Cave, Non Nok Tha and Ban Chiang. These sites gave dates which at that time were older than general expectations, for instance for bronze objects of 2000-3000 BC and for Dongson style earthenware of 4000-5000 BC [current tendencies are to reduce these dates to post-3000 BC for pottery and post-2000 BC for bronze - eds]. Wilhelm G. Solheim II (1972, 1975) thereupon advanced his idea that Southeast Asia was not just a receptacle for various foreign cultural influences, such as agriculture, polished stone tools, pottery and other handicrafts which were previously believed to have entered from Japan and China, or metallurgy which was believed to have entered the region after contact with eastern Europe (800 BC) and China (Zhou dynasty, c.300 BC). This older picture of Southeast Asian prehistory had to be reviewed after new dating methods were applied to excavations in several areas, both in continental and island Southeast Asia. Indonesian prehistory now has to be adapted to chronological schemes which reflect data in the broader Southeast Asian and even Pacific context.

The Need to Intensify the Use of Modern Dating Techniques

If it is carefully examined, Indonesian prehistoric chronology contains a defect which must quickly be rectified. It is mainly based on relative dates or on the assumption that Indonesia merely constituted a receptacle for elements from the west and north. Many of these observations must be classed as important and still raise problems, but more accurate dating is required. This is true especially for the cultural complexes of Pacitan, Sangiran, Ngandong, Sumpang, Kalampong, Melolo and so forth. Efforts to compare these complexes with similar ones outside Indonesia assist with dating, but the use of radiocarbon dating for all research results in the future is absolutely necessary. A listing of early radiocarbon dates from Indonesia carried out by Bronson and Glover in 1984 showed a total of samples from northern Sumatra, Jambi, northern Sulawesi, southern Sulawesi, western Java, Bali and East Timor, only just equal to the total of radiocarbon dates from the single site of Ban Chiang in Thailand. However, the results of radiocarbon dating so far in Indonesia approach well the estimated ages based on typology and external comparisons.

Even though formal similarities are very striking among prehistoric cultural complexes across Southeast Asia, it cannot be doubted that local forms have also become characteristic of regional developments. In Indonesia, unique forms have been found, such as quadrangular adzes and pick adzes made from semi-precious stones, Pejeng type drums, and the bronze ceremonial axes from Ujungpandang, western Java, Roti and Kabila. Nearly all these objects were found outside archaeologically contexts, so that their ages have been determined on the basis of typology and technology. A broad study of human activity in the extended region of Southeast Asia and the Pacific in prehistory, discussing the similarities and differences found through the region, has been performed by Bellwood (1978, 1985). In Bellwood's descriptions, Indonesia is a focal area for important changes in human life and culture, with important effects of the inhabitants of the whole Oceanic and Australasian region.
REFERENCES


