Mesopotamian *tell*, for example) the destruction wrought by strife is overshadowed by reconstruction. What archæology reveals is precisely "the progress of mankind—of art, science and industry" from the painted caves of mammoth-hunters not only to the early cities of Sumer and Crete but also right down to Manhattan and Magnitogorsk. Flint axes and rotary querns, the history of which is provided by archæology alone, are just as much embodiments of science as the cyclotron. The cowrie shells from the Mediterranean adorning a Cro-Magnon skeleton in central France 30,000 years ago and the seals imported from India to Ur 4,500 years ago are just as reliable indexes of intercourse (and so of the pooling of ideas) as Board of Trade lists.

On the other hand, the methods of archæology accurate and dispassionate observation, systematic comparison and classification, the continual reference of explanatory generalizations to the concrete data derived from observation—are truly scientific. An archæological excavation is an experiment, albeit an experiment that can never be repeated; it should be resorted to, as Collingwood insisted, primarily to test a hypothesis. Archæologists also find out by experiment how pigmy flints were made, how pots were coloured and how the ramparts of forts were 'vitrified'².

Prehistoric archaeology at least may be deemed to have become a science in 1859. In that year Evans and Prestwich, by confirming Boucher de Perthe's claims as to the antiquity of his artefacts from the Somme gravels, vindicated the existence of pleistocene man; and Darwin, by winning acceptance for the view of man as part of Nature, not only made human history a continuation of natural history, but also gave Nature a history as well as man (as Millar so ably insists in "Science and History"). The methods of prehistory have, especially during the last twentyfive years, been increasingly applied to the study of historical periods too. Hence a lesson in archæology, even if it consist only in the comparison and classification of rusty bolts and broken tobacco-pipes from a town rubbish pit, could be at once a lesson in science and a lesson in history. But not only should it be "more stimulating and elevating", but also more interesting and easier to understand than lists of kings and battles, persecutions and proscriptions.

The corollaries would be, on one hand a more generous treatment of archaeology by the State and local authorities, on the other a fuller recognition of the subject's scientific status by universities and institutions. More space, more staff and better equipment are required if existing archæological collections are to be made genuinely educational. In Scandinavia, Czechoslovakia and the U.S.S.R., I have been almost embarrassed by the streams of school classes being taken through museums by their teachers; in few museums in Britain are the archæological galleries large enough or the exhibits so arranged as to encourage this procedure. Funds are needed for further excavations not only to enlarge collections and provide sites for educational visits, but also and more seriously to recover the context within which dead monuments and relics can come to life. A more prominent position might be given to archæology in university curricula even where archæological departments already exist; for the universities must provide the teachers of archæological history and are best fitted to direct research and experiments that cannot be repeated. Finally, the

contacts between archaeologists and (as I should like to put it) the other men of science might be made closer than they are and given formal recognition.

V. GORDON CHILDE.

Department of Prehistoric Archæology, University of Edinburgh.

¹ NATURE, 151, 168 (1943).

² Childe and Thorneycroft, "The Experimental Production of the Phenomena of Vitrifaction", Proc. Soc. Antiquaries Scotland, 72, 44.

Fortieth Anniversary of the University of Peiping

THE first volume of a book commemorating the fortieth anniversary of the foundation of the University of Peiping was recently published here. The distribution was to have been from Shanghai, but owing to war conditions it is doubtful if any copies were ever sent out. The following is a list of the papers contributed to the volume.

- Chang Hsi-Chin : "Observations on the Geological Structural Features in Western Yunnan".
- Chang Hsi-Chih and Y. C. Sun : "New Graptolite Faunas from Lientan, Kwangtung".
- Lu Yen-Hao: "Ontogeny of Ptychoparia Szechuanensis Sun".
- Y. C. Sun: "On the Occurrence of Fengshanian (late Upper Cambrian) Trilobite Faunas in Western Yunnan".
- Y. C. Sun: "The Uppermost Permian Ammonoids from Kwangsi and their Stratigraphical Significance".
- H. C. T'an: "Preliminary Report on the Geology of the Tzuhsing Coal Field in Southern Hunan".
- H. C. Wang: "Geology of the Kunming Region".
- Yung Chung-Chien : "Preliminary Notes on the Lufeng Saurischian Remains".
- Yueh-Chiang Chen: "Notes on some Freshwater Amphipods of Peiping".
- Man-Chiang Niu : "The Anatomy of a Salamander, *Triturus Orientalis* (David)".
- Man-Chiang Niu: "A Comparative Study of the Skeletons of Ophiocephalus argus cantor (Ophiocephalidæ) and Parasilurus asotus L. (Siluridæ) with those of Carassius auratus L. and Ctenopharyngodon idellus C. and V. (Cyprinidæ)".
- Chia-Tui Shen : "The Larval Development of Some Peiping Caridea-Caridina (Atyidæ), Palæmonetes and Palæmon (Palæmonidæ).
- H. C. Yin: "Effect of Auxin on the Pigment-content, Respiration, and Photosynthesis of Chlorella vulgaris".
- T. L. Woo: "Anthropologische Studien über die Chinesische Patella". Wentworth Chu and Chung-Kwei Chang: "Transients of Resistanceterminated Dissipative Band-Pass Electric Wave Filters".

Edith Ju-Hwa Chu: "A Modified Procedure for Preparing o-Bromobenzoic Acid".

S. L. Chien and Y. F. Sui: "The Dipole Moment of 2,2', 4,4-Tetranitrodiphenyl".

If any scientific workers in Britain or America would like to receive copies of any of these papers, we can arrange to send them in typewritten or mimeographed form. Requests should be addressed through Dr. J. Needham, via the British Council, **3** Hanover Street, London, W.1.

CH'ANG CH'ING-YUEH

(Professor of Botany, University of Peiping).

JOSEPH NEEDHAM (British Scientific Mission in China).

Sun Yün-Chu

(Professor of Geology, University of Peiping). Kunming, Yunnan. March 18.

© 1943 Nature Publishing Group