

"Bronze Age" as used in English as late as ten years ago. Prehistoric archaeology, being based so largely on a study of tools and weapons, naturally lends itself to a "materialist" interpretation. That does not exclude a study of non-economic activities even in Russia, as for example Zamiatnin's long discussion on fertility rituals in his memoir "Gargarino"

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PROF. V. GORDON CHILDE utters a timely protest against "dislike of the Soviet's foreign or domestic politics" leading men of science "to take an unduly gloomy view of the position of archaeology in Russia".

It was, however, precisely with the view of depreciating any political colouring whatsoever, and of whatever shade of opinion, in scientific matters that protest was made in these columns against the way in which political doctrine under the Soviet Republics had not only affected archaeological theory, but had also intervened to check international exchange in scientific research.

Attention was then directed to a specific instance of such interference by which an end has been put to Prof. Tallgren's work—this at a date subsequent to that to which Prof. Childe looks for the appearance of some signs of improvement. Even more abhorrent to the spirit of scientific investigation is the regimentation and even 'liquidation' of the individual, from which archaeology, with other sciences, in the U.S.S.R. has suffered severely. This is no question of like or dislike of a political policy as such.

THE WRITER OF THE NOTE.

Points from Foregoing Letters

Evidence, in the form of a cloud-chamber photograph, is given by E. J. Williams and G. E. Roberts for the transformation of mesotrons into electrons. This bears out the supposition that the mesotron is identical with the particle assumed by Yukawa in his theory of nuclear forces and β -disintegration.

A. H. Wilson and F. Booth have calculated the probability that, when a fast meson collides with a nucleus, a very energetic γ -ray will be emitted. They find that the cross-section is proportional to the energy of the meson, and that for very high energies the energy loss is mainly due to the emission of γ -rays. The bearing of this upon the cascade showers in the atmosphere is discussed.

The known nuclear energy levels of ^{10}B , ^{26}Mg and ^{223}AcX are interpreted by K. M. Guggenheim as eigenvalues of the rigid rotator, which can thus be applied to nuclei. The moments of inertia are in accordance with the assumption of equal nuclear

Quantitative clinical observations by J. S. Mitchell, under conditions with equalized depth dose distribution, show that 0·7–0·8 r. unit of X-radiation of effective wave-length 145 x.u. is equivalent, in the production of moist desquamation of human skin, to 1 r. unit of γ -radiation of effective wave-length 15 x.u. Theoretical considerations suggest that this result cannot be attributed entirely to the exceptional histological and chemical structure of skin.

A mechanism for the enzymic decarboxylation of pyruvic acid is proposed by H. Weil-Malherbe involving the formation of a Schiff base from co-carboxylase and pyruvic acid followed by an intramolecular oxido-reduction leading to acetyl-dihydrococarboxylase. It is suggested that this compound is oxidized in animal tissues and in certain bacteria by a specific carrier, whereas it undergoes a second intramolecular oxido-reduction with yeast carboxylase resulting in the formation of the Schiff base of acetaldehyde. Acetyl cocarboxylase may be

identical with the 'active form' of acetic acid postulated for animal tissues.

Analysis of aggressive behaviour in the British robin by D. Lack shows that it can be divided into three main reactions, each primarily elicited by a different external factor; but this division is only partial. While colour pattern is particularly important, it is not the sole releasing factor, and, in general, releasers are considered specialized, and not fundamental, units of bird behaviour.

N. K. Panikkar finds that, like Palaeomonetes, the common prawn *Leander serratus* is definitely hypotonic when in normal sea water, though it is less homiosmotic than the former. Its osmotic behaviour is unusual for a typical marine invertebrate and is of interest when the habits of allied species are considered. The osmotic properties would seem to indicate its having taken secondarily to marine life.

S. D. Garrett reports assimilation of nitrate nitrogen by a pure culture of the fungus *Ophiobolus graminis* growing on sterilized wheat straw plus calcium nitrate.

C. B. Goodhart and Richard Harrison report the occurrence of six off-shore species of amphipods in the littoral zone on the north-west coast of Scotland.

War-time co-ordination of library resources, as advocated in a recent issue of NATURE, is discussed by the librarian of the National Central Library. He states that the union catalogue housed in the Library and relating to periodicals in British libraries is subject to continual revision, and that the difficulty of obtaining foreign periodicals in war-time has been exaggerated. In reply to these comments, it is pointed out that revision of entries in union catalogues of periodicals is generally very tardy and imperfect, and that the present period will enhance these imperfections. Reasons are given for anticipating further dislocation and interference with supplies, as compared with peace-time.