uncertain cases was observed by Yamamoto[2] in a Japanese male plant of *Rumex Acetosa*, but in *Rumex angiocarpus* I observed[3] asynapsis, which most possibly is of the modificatory type.

In the spring of 1939 I obtained a morphologically normal male plant of *Rumex Acetosa* ssp. *pratensis* from a locality in south-east Sweden. This plant was found to be characterized by a high degree of asynapsis. Although the pollen was almost completely sterile, a progeny was raised by crossing this individual with normal female plants from other localities. The high degree of asynapsis was also met with in all the male individuals of these progenies. The males were highly sterile, but the females were completely normal with a good seed setting.

As the first generation clearly showed that the asynapsis was genically caused, closer analyses of the inheritance of this disturbance were made. These analyses showed that the character is only met with in the male plants. This might, theoretically, be due to *Y*-linked inheritance or—as the number of male plants in the F_1 generation was as low as only six individuals—an *X*-linked recessive character. Closer analyses of the female hybrid individuals showed, however, that they were completely free from the gene for asynapsis. The cross hybrid female × normal male gave only normal males and females, the cross hybrid female × asynaptic male gave asynaptic males and completely fertile females, and these latter females crossed with a normal male also gave only completely normal males and females. On the basis of these results I regard it as most plausible to consider it as definitely demonstrated that the asynaptic gene in this material of *R. Acetosa* is located in one of the two *Y*-chromosomes.

According to Ono[4], Yamamoto[5] and others, the *Y*-chromosomes of *R. Acetosa* are completely inert as to sex-determining genes. The *Y*-linked inheritance of asynapsis in the present material shows, however, that the *Y*-chromosomes are not completely without genes.

A *Y*-linked inheritance of genes other than sex-genes has been previously observed in some few animals, but in plants only a gene suppressing the manifestation of an autosomal gene for 'variegated leaves' in Melandrium may, according to Winge[6], possibly be regarded as completely *Y*-linked.

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Aug. 5.

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Adult Education in Science

IN view of the attention now being given to the replanning of educational systems, experiences gained in Salisbury may be of value in directing adult education of the future along needed lines.

Initially, in 1940, an attempt was made by a number of university teachers to enable junior technical assistants of a Government establishment to complete gaps in their basic scientific training and so be able to continue their studies with greater facility at the end of the War. As time passed, however, it was found that enthusiasm was such that courses on advanced topics could be given successfully. These at once attracted a number of senior workers, who expressed the view that the more advanced discussions, particularly of rapidly developing subjects such as biochemistry, or molecular theories, were of great value to specialists, who feared that their outlooks might be becoming unduly stereotyped since, in many cases, their basic training had been imparted years ago.

I feel that this venture at adult scientific education in war-time is not only a success, but also that it is probably indicative of a widespread latent demand for more detailed information about recent scientific achievements.

It suggests that my pre-war "popular lectures" delivered, in conjunction with social service organizations, on "Science from the Easy Chair" lines were fundamentally misdirected efforts, and that the true function of adult education should be to keep alive, and develop, the enthusiasm for knowledge of those who realize the cultural dangers of specialized occupations, rather than to attempt to arouse faint interests when initiative is lacking.

Few, if any, other countries have so large a proportion of skilled technicians who, in the course of their daily work, have to become extreme specialists with but little opportunity to learn, once their basic training has been completed, even the broad lines of development of scientific thought, or to hear of modern discoveries of interest. Yet to many such specialists (witness those in the light electrical or textile industries) there may well come a time when fundamental scientific advances bring about the derangement of the whole of their prospects of beneficial employment.

If the adult education movement can enable technicians in industry to keep abreast of modern trends of scientific thought, it will be playing a more vital part in the life of the community than if, as at present, it is thought of as an 'escape' from a mechanized age. Unfortunately we are, in Great Britain, tending to mechanize science to the community by not disseminating widely enough the most modern scientific conceptions as they progressively develop in the light of new research.

A few public lectures in big cities, stimulating though they may be, are not enough. There are needed also planned courses at which are discussed current ideas which stimulate scientific thought and new discoveries of significance.

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Salisbury. Aug. 8.

Archæology as a Science

IF all archæologists were of the calibre of Prof. Gordon Childe I could heartily endorse his opinions regarding the scientific status of archæology. But, alas, this is not the case, though no one, I hope, has a stronger belief in the value and importance of archæology, both from the 'historical' and philosophic points of view, than I possess. Prof. Childe quotes as one of the methods of archæology "dispassionate observation". This desirable quality, which I understand is somewhat uncommon in any science, is not, I should have thought, exactly an outstanding characteristic in archæological circles. That, indeed, is my conclusion after many and sometimes exacting years of experience.

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