

## THE DANGEROUS CONCEPT OF THE NATURAL FOREST

RELATIVE to agriculture, forestry is still a very young science. The bulk of the world's timber still comes from natural, rather than managed, forests. This being so, it is perhaps not surprising, as Mr. T. R. Peace points out in his presidential address to Section K\* (Forestry), that foresters should tend to turn to the natural forest as an ideal toward which they ought to aspire. Many mistakes have been made in the creation of artificial forests, and a tendency has developed to attribute these to departures from natural forest conditions. No one would deny the desirability of more research on forest relationships, but there is no need to evaluate these relationships on the basis of their occurrence in the natural forest. The agriculturist no longer bases his practices primarily on the behaviour of wild plants, and it is certainly necessary to consider whether the forester should do so.

A managed forest, in so far as timber is being removed from it, is inevitably different from a truly natural forest. In fact, there are normally many other differences, especially if the forest is planted. The forester often uses trees which are exotic to the area in which he is working. He usually creates even-aged and often pure forests, whereas natural forests are nearly always uneven-aged and mixed. The forester can improve his forest sites by practices such as ploughing and manuring. He can also improve his crops by selection of species, provenances or individual trees of especially high quality.

Believers in the natural forest tend to decry the use of exotics; but exotics have been planted successfully in many countries, especially in Britain. In any event, the conception of exoticism is based on a misunderstanding of the bases of the natural distributions of plants.

While it is admitted that pure crops inevitably present certain enhanced disease risks, it is clear that they have certain silvicultural advantages. It should not be assumed that their disadvantages, where these occur, cannot be overcome by appropriate techniques.

From a production point of view, uneven-aged stands have very definite disadvantages. If one does not accept the concept of the inherent desirability of the natural forest, it is hard to find any good reason for their retention.

Admittedly, the use of pure coniferous crops may possibly have undesirable effects on forest soils. It is, however, clearly necessary that this effect should be better understood and evaluated, before admixture of broad-leaved trees is generally advocated. In this connexion, it is considered that the influence of mycorrhiza has often been exaggerated.

The study of the biological relationships of the natural forest will provide valuable data towards our understanding of forest relationships in general. It is, however, highly undesirable that the conditions existing in the natural forest should automatically be regarded as ideal, and any departures from them as retrograde steps.

If we are to make that progress in the acquisition of knowledge, which is necessary for a proper understanding of forest processes, it is dangerous to limit ourselves at this stage by putting forward general principles, even if they appear to have a sound

foundation. To burden ourselves with a concept so vague as the general desirability of the natural forest is doubly dangerous.

## SIXTY YEARS OF PROGRESS IN ENGLISH EDUCATION

IN his presidential address to Section L (Education), Prof. H. C. Dent points out that in 1900 England was educationally a sadly under-developed country. But the first decade of the twentieth century was one of explosive reform in many directions. Responsibility for all public education was for the first time vested in a single central authority by the establishment of the Board of Education, which took over in 1900. The Education Act, 1902, transferred local responsibility for public education from *ad hoc* school boards and voluntary bodies to the county and county borough councils, and, by granting them powers to provide and aid education 'other than elementary', created a statutory system of secondary education. This system was expanded rapidly, and its social range greatly widened by the introduction of the 'free place' scheme in 1907. Meanwhile, between 1900 and 1909 the number of universities in England was doubled.

Local education authorities were in 1906 empowered to provide school meals for necessitous children, and in 1907 required to set up a School Medical Service—a reform which within a generation effected a revolutionary improvement in child health.

The First World War focused attention on the exploitation of young workers. Though the attempt, made by the Education Act, 1918, to establish post-school day-continuation schools proved abortive, this Act established fourteen as the school-leaving age without exemptions, thus abolishing the 'part-time' system; and by requiring local education authorities to provide advanced and practical courses for older children in public elementary schools, paved the way towards secondary education for all.

A decisive step was taken towards this by the first Hadow Report of the Consultative Committee of the Board of Education, "The Education of the Adolescent", published in 1926, which presented the concept of education as a continuous process conducted in successive stages, of which the first, up to the age of eleven plus, should be regarded as 'primary' education, and the second, available to all, but in different forms to match different abilities, as 'secondary' education. Uneven but unceasing advance towards this ideal was made up to 1939 by 'Hadow reorganization'—the provision of separate schools for primary and post-primary education within the public elementary system. Further reports by the Hadow Committee, published in 1931 and 1933, offered blueprints of curriculum and method for the junior and infant sections respectively of the primary school. These are the bases of contemporary practice.

The Second World War initiated another era of explosive reform. The Education Act, 1944, re-organized the statutory system of public education into progressive stages, and established the principle of secondary education for all. Concurrently, there began an expansion of university and other higher education which bids fair to be without precedent in our history.