

here. For instance, what is the exact nature of the difference in the electronic structures exhibiting respectively tetrahedral and octahedral symmetry? Why are there two subspecies of octahedral symmetry, as is evident from the lamellar structure and birefringence of non-luminescent diamond? We have also not dealt with various other important issues which arise from the facts under consideration. What

is the scheme of electronic energy levels in diamond which give rise to the observed emission and absorption spectra? Why are the transitions between them allowed in some cases and forbidden in others? Unless we are in a position to answer such questions, we cannot claim to have fully understood either the structure of diamond or the many fascinating phenomena which it displays.

### HUMAN BIOLOGY AND SOCIAL WELFARE

**I**N his Presidential Address to the Section of Anthropology and Archæology at the 38th Session of the Indian Science Congress, Bangalore, 1951, Dr. Sarkar makes out a case for the role of human biology in the process of building up the welfare state. He lays emphasis on the numerous gaps in our knowledge of the fundamental problems of the science due to long neglect. In many parts of India there is no compulsory registration of births, marriages and deaths. The work of the geneticist and the social and civic legislator is thus made difficult by the absence of adequate information and scientific knowledge which could be collected easily by scientific bodies and hospitals. Case reports and clinical data of common diseases such as tuberculosis, venereal diseases, etc., are entirely lacking. A central body could classify and publish such data if collected by the institutions concerned. A system of universal finger printing would settle out of court all disputed cases of identity and prevent frauds and forgeries. Population problems have been tackled so far by alarmist economists and not by sound biologists. Dr. Sarkar is of the view that there is no fear of over-population. The ban on widow marriage in Bengal is depleting the population of the food growers of the country.

Though the work done so far on the menarcheal age of women in India is not conclusive, there are indications to show that the menarcheal age is going down especially in those communities whose socio-economic con-

ditions are better. The Age of Consent Committee's findings in this respect are not satisfactory.

Dr. Sarkar regrets that in no case of disputed paternity have the law courts called in at any time for expert scientific opinion. Drawing up a parallel between the varied aspects of family life in India and the United States, Dr. Sarkar finds that there are many common characteristics of the modern family in both the countries such as urbanization, secularization and a trend to companionship. The only feature in which America differs from India is in the high divorce rate in America with its basic instability of the family, a feature which will become characteristic of India as well on the passing of the Hindu Code Bill. Dr. Sarkar deprecates such legislation as divorce laws in the absence of factual and statistical studies of genetic and sociological problems. A national commission on marriage, he says, should precede the Hindu Code Bill.

Even the much maligned caste system with its group endogamy and clan exogamy has been productive of beneficial results in India, says Dr. Sarkar. Of the sixteen Bengalis who were Presidents of the Indian National Congress, nine have been Kayasthas who are cited as an example of the Galton-Pearson ideal of national eugenics—a dominant fertility of the fitter stocks. Social legislation, says Dr. Sarkar, should be broad-based on this biological axiom.

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### ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS

**I**N view of the ever-increasing use of physical methods in problems of biochemistry—especially in borderline fields, Academic Press announces the intended widening of the scope of its journal, *Archives of Biochemistry*. In addition to established biochemical topics, the Editors will consider manuscripts in the fields of virus research, radiation effects on living matter, macromolecular biology and chemistry,

studies of the application of radioactive indicators, and physics of biological systems.

Beginning with Volume XXXI, Number 1, March 1951, the title of *Archives of Biochemistry* will be changed to *Archives of Biochemistry and Biophysics* to indicate more accurately the new scope of the journal. The Editorial Board has also been enlarged; Drs. E. Newton Harvey, E. C. Pollard, and R. W. G. Wyckoff have accepted an invitation to serve.