

Mourant A E, Kopeć A C & Domaniewska-Sobczak K. *The distribution of the human blood groups and other polymorphisms*. London: Oxford University Press, 1976. 1,055 p.

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An attempt is made to collect, tabulate, and analyse all available data on the frequencies in human populations of clearly defined genetic characters. For each allelomorphic set of characters, there are described the genetic basis, the phenotypic manifestations, and the evolutionary implications, especially their effects on susceptibility to diseases. (The *SCI*<sup>®</sup> and *SSCI*<sup>®</sup> indicate that this book has been cited in over 500 publications.)

Grant, who suggested the initiation of a series of books on blood groups and transfusion: one by Race, on the genetics of blood groups; one by P.L. Mollison, on the clinical aspects of transfusion; and one by me, on the population relations of the blood groups.

The resulting first, and relatively small, edition of *The Distribution of the Human Blood Groups*<sup>1</sup> led to the first general recognition by anthropologists of the importance of the blood groups in human classification and marks the critical stage in the supercession of bodily measurements by genetic statistics in such classification. For some 15 years, I continued to publish blood-group frequency data, but, by about 1960, I realised that I could not produce the much needed encyclopaedic second edition while still directing the national and international World Health Organization blood group reference laboratories. In 1965, as soon as I had found, in the late Dr. K.L.G. Goldsmith, a competent successor in this post, I set up the Serological Population Genetics Laboratory at St. Bartholomew's Hospital (superseding the Nuffield Blood Group Centre), with Dr. D. Tills as assistant director, Dr. A.C. Kopeć as statistician, and Mrs. K. Domaniewska-Sobczak as librarian. The second (quarto) edition by Kopeć, Domaniewska-Sobczak, and me, published in 1976, was followed by other books by the same authors, including *Blood Groups and Diseases*<sup>2</sup> in 1978. After my retirement in 1977, I published the semipopular version of *The Distribution* entitled *Blood Relations*<sup>3</sup>. It was intended that Tills, in collaboration with Kopeć, should publish a series of supplements to *The Distribution* from his anthropological blood group laboratory at the Natural History Museum, but soon after the publication in 1983 of the first of these, as one of the many restrictions imposed by the present government on the advancement of British science, Tills's laboratory was closed down.

*Blood Relations* has served as a valuable channel for the introduction to medical workers of the ideas put forward in our whole series of books. It has in particular served as a basis for a recent widespread revival of work on the association of genetic characters with infectious and other diseases, including bacterial meningitis, by C.C. Blackwell<sup>4</sup> and others. It has also received an unusual citation, being quoted extensively (and correctly!) in a detective novel by Antonia Fraser,<sup>5</sup> in which I appear almost as an off-stage character.

Similar work is now being extended in other laboratories to an even wider range of characters including DNA polymorphisms, so that we are beginning to see how the various branches of humanity are descended from one another and even how man himself is descended from the "lower" primates.

## The Nature of Human Genetic Variation

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At the end of World War II the Galton Laboratory Serum Unit, under the directorship of R.R. Race, had become the leading world centre for research on the human blood groups. A year later the centre, its functions, and its staff were transferred to the Lister Institute, London, where the staff and their functions were divided between two laboratories. Pure research remained under the direction of Race as the Blood Group Research Unit, while the production of testing sera and advice on clinical problems arising in the regional centres of the National Blood Transfusion service became the functions of the Blood Group Reference Laboratory under my direction.

Large numbers of blood samples and records of tests at other laboratories came my way, and, in collaboration with Race and others, I began to publish statistics of blood-group frequencies.

The laboratory then became involved in organising anthropological expeditions whose objects included the collection of blood for grouping at the laboratory. We thus took part both in planning some major expeditions to such places as the Himalayas and in finding support for enterprising young doctors and students, which enabled blood to be tested from anthropologically interesting populations difficult of access, such as the Ainu, that in some cases proved to be of unusual and unexpected interest.

I was now consciously following up the pioneer work of Ludwik Hirsfeld on the world distribution of the ABO blood groups, done immediately after World War I, and of William Boyd of Boston, Massachusetts. I renewed my acquaintance with John

1. Mourant A E. *The distribution of the human blood groups*. Oxford, England: Blackwell Scientific, 1954. 438 p. (Cited 495 times.)
2. Mourant A E, Kopeć A C & Domaniewska-Sobczak K. *Blood groups and diseases*. Oxford, England: Oxford University Press, 1978. 328 p. (Cited 110 times.)
3. Mourant A E. *Blood relations*. Oxford, England: Oxford University Press, 1983. 146 p. (Cited 10 times.)
4. Blackwell C C, Jonsdottir K, Mohammed I & Weir D M. Non-secretion of blood group antigens: A genetic factor predisposing to infection by *Neisseria meningitidis*. (Poolman J T, Zanen H C, Meyer T F, Heckels J E, Mäkelä P R H, Smith H & Beuvery E C, eds.) *Gonococci and meningococci: epidemiology, genetics, immunochemistry and pathogenesis*. Dordrecht, The Netherlands: Kluwer Academic, 1988. p. 633-6.
5. Fraser A. *Oxford blood*. New York: Norton, 1985. 224 p.