

GENOVÉS SANTIAGO. *Introducción al diagnóstico de la edad y del sexo en restos óseos prehistóricos*. Instituto de Historia. Universidad Nacional Autónoma de México. 1962. 137 pp. y 9 láminas.

Dr. Santiago Genovés "Introducción al Diagnóstico de la Edad y del Sexo en Restos Óseos Prehistóricos" constitutes a scholarly, well-documented book containing many excellent charts, pictures and references helpful to those interested in physical anthropology.

By the literary standards of today Dr. Genovés' book should be a best seller: the first half deals with age, the second with sex. Little passion is involved since, as he mentions, among the "virgins" sacrificed in the cenote of Chichén Itzá, half have been found to be men.

Since this booklet deals with the assessment of these two factors in prehistoric osseous remains, I fear the main stir will be among physical anthropologists and anatomists; proponents of cranial suture closure certainly will not wish to toss it overboard. The fragmentary nature of archaeological material often makes age and sex determination of osseous remains a difficult task. The variability in the time of closure of different sutures is so great that Genovés considers this method unreliable. Used in conjunction with other indicators of age and not alone, the writer feels it can perhaps still be of value. Its reliability, of course, may vary according to the particular segment of the age range: a trait may be valid for a narrow span of years and then a greater disparity between physiological and chronological age may occur.

This is recognized by Dr. Genovés who, on the basis of his studies (with Messmacher) on a series of 101 Mexican crania, recommends discarding cranial suture closure as a method of judging age except for the spheno-basilar. Charts assembled from data of leading anthropologists such as Hrdlicka, McKern and Stewart, Vallois and others show general agreement on the age range of this closure over a time span of 17-25 years. Genovés (and Messmacher) establish a range between 18 and 20 years. He points out that this process, like dental eruption and epiphyseal union, can be influenced or retarded by dietetic patterns, illness and certain types of anemia. Based on all the other methods of age determination he has worked out an informative chart of the principal steps to follow for age determination from 16-60.

Having examined the archaeological skeletal material from Tlatilco (México), the reviewer agrees that cranial suture closure alone would be an unreliable basis for age estimation in that particular population. The pressures involved in the occipital flattening so common in the group may well have affected the timing and/or pattern of suture closure. It would be interesting to study other groups practicing cranial deformation to determine such effects. This would relate back neatly to the very beginning of the book where the author finds intra and extra racial variability to be considerable in age diagnosis, and that total stature and relative proportions must also be considered when trying to diagnose age and sex.

Dr. Genovés says that it is difficult to establish the demographic pattern of pre-historic populations from osseous remains only.

It is of great importance to know the sexual proportion so that significant social data can be interpreted by the archaeologist and ethnologist alike. Various investigators, notably Nemeskéri and Thoma, have shown higher infant male mortality in certain populations caused by lethal recessive linkages. To have a high proportion of males or females is not abnormal. It is dependent on factors influencing a particular group at a particular time.

Neither is sexual dimorphism constant from one group to another, whether considered geographically, culturally, linguistically or racially. The pre-auricular sulcus is of great value in sexual diagnosis in European, Egyptian or Mesoamerican remains but is of little validity for a Bantu group. The author reminds us that prehistoric remains cannot be judged by today's standards; varying customs governed division of labor and women may have experienced the effects of continuous, if not violent, muscular exercise. Thus, developmental extent of muscular insertions is not a reliable indicator of sex. Would not these same factors influence the growth and development of the scapula? Genovés and Bainbridge in 1956 devised a method for using measurements of this bone — measurements which yielded very good diagnostic results.

By the cautious use of the several different methods outlined in this booklet, an accurate assessment of sex may be possible despite the overlapping of male and female traits in bone. Dr. Genovés mentions that Wood Jones found fetuses in Egyptian pelvises with male characteristics. Having inspected the prehispanic remains of Tlatilco I must concur with Dra. Johanna Faulhaber when she expresses surprise at the large number of cases of female skeletons with exceedingly robust characteristics. Considered separately, the well-developed supra-orbital ridges, large mastoid processes and general heaviness of many skulls are also quite deceptive. Parallels in female robusticity exist among aboriginal groups in many parts of the world.

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