

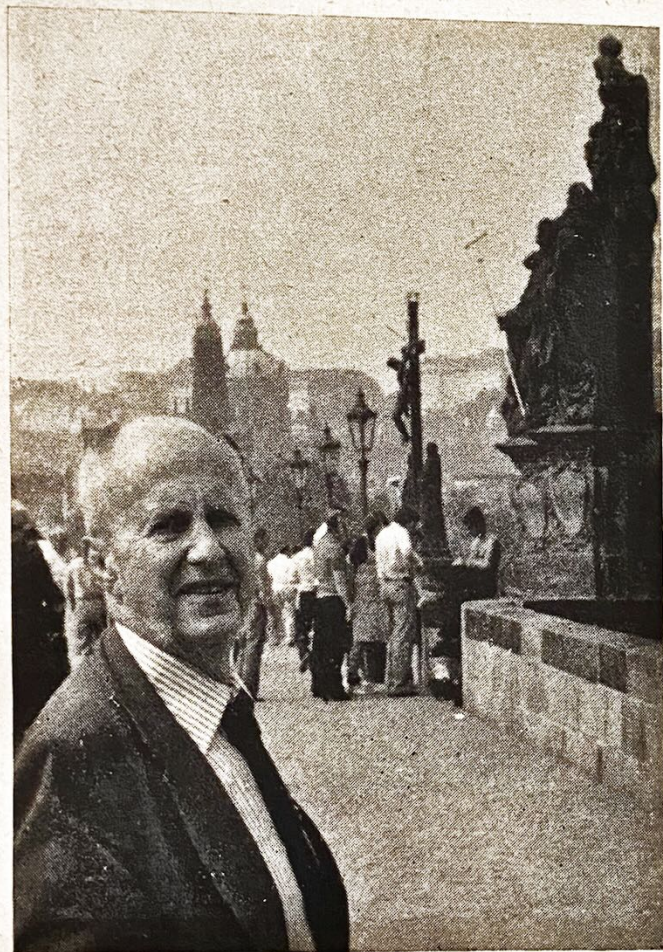


IN MEMORIAM DR. J. LAWRENCE ANGEL

Dr. J. L. Angel, curator of the Anthropological Department of the Smithsonian Institution in the United States National Museum in Washington, D. C. died of hepatitis at the age of 71 years.

He joined the Smithsonian Institution in the year 1962, following his work at the University of California in Berkeley, at the University of Minnesota in Minneapolis, and at the Jefferson Medical College in Philadelphia.

His scientific interest concentrated on the biology of man, on palaeodemography, palaeopathology, ecology of man, microevolution, etc. He visited Greece and the Eastern



Mediterranean altogether eleven times, studying both the living populations and skeletal remains coming from archaeological research. His book on the prehistoric inhabitants of Lerna is one of the classical palaeanthropological studies.

Dr. Angel had very warm and friendly relations to the Czechoslovak anthropology and in the year 1979 at the Second Hrdlička Congress in Humpolec he was awarded the Hrdlička Commemorative Medal.

The Czechoslovak anthropologists are losing a sincere friend in the deceased Dr. J. L. Angel.

M. Prokopc

THE 5th CONGRESS OF THE EUROPEAN ANTHROPOLOGICAL ASSOCIATION IN LISABON 1986

The Portuguese members of the European Anthropological Association headed by Professor Dr. Emilia de Castro e Almeida were the organizers of the 5th Congress. The event took place in the week between September 29 and October 4, 1986, in the complex of the Gulbenkian Foundation in the modern part of the city.

The programme of the congress focused on several areas. The basic papers were read in the morning in plenary session. The rest of the presentations were on the agenda in the afternoons in 2—3 sections. This solution resulted in isolating the groups of participants, reducing the intensity of discussion, some papers were overlapping or almost identical topics were discussed in two or in three sections at the same time.

Monday, September 29th, was dedicated to morphology and to palaeontology. Following the opening address by Professor C. Almaco, M. Pickford presented a survey of the earliest hominids in the period between *Kenyapithecus* (15—16 mil. years) and the time of *Australopithecus* (from 4 mil. years BC onwards). In Africa this period is a "black hole", without any documents on hominids. To-day thanks to new methods, namely to molecular anthropology, the closeness of man to chimpanzee and to gorilla, rather than to other anthropoids, is more and more evident. Some authors tried to fill the above hiatus with various forms of *Ramapithecus* and *Sivapithecus* (8—9 mill. years), they, however, belong to the Pongo line and many authors deny their hominidity. On the other hand *Kenyapithecus* differs from *Ramapithecus*, and due to the characters of both the maxilla and mandible they are much closer to the African anthropoids. It cannot be excluded that *Kenyapithecus* represents the initial form, the beginning of the development which in Africa continued towards the *Australopithecines*, and further to *Homo* and to African apes. Through migration it resulted in the Asian branch of *Ramapithecines*, *Pongo*, *Gigantopithecus*, etc. The above hiatus in the fossil finds can be explained perhaps by the fact that in the Middle Miocene the temperature in Africa rose by 10 °C; and this was perhaps the cause of the above-mentioned migration. A survey of the hitherto finds of *Homo erectus*, their chronology and morphology, and their definition were presented by M. Day. *Homo erectus* is considered to be a typical Palaeospecies, developing from *Homo habilis* to *Homo sapiens* and its forms appear in connection with the chronological and geographical fluctuations and with the extensive morphological variability including typical transition forms. M. D. Garralda dealt with the hitherto results of the research of the Neolithic populations of Europe. Such studies are mostly based on the cranial morphology and follow the usual typological classification (robust and gracile Mediterraneans, Cro-Magnoid, Protonordic and Brachycranial forms). The only exceptions are the well known study of Schwidetzky, Chopra and Manga, documenting the expansion of the population of south-eastern Europe to Central Europe.

From the afternoon presentations let us mention the odontometry of Spanish Neolithic and Bronze Age series (V. Galera), a study of Lusatian cremations from Poland (G. Gralla), the craniometric relations in the Mesolithic population from Museum (W. Howells), and analysis of the ear ossicles of the skeletal remains from Novalesa near Turin (M. Masali), a revision of the Phenice method for the determination of the sex of skeletal finds (S. Maclaughlin), a first attempt

at presenting a study of Medieval Basks (I. Arenal), an attempt at the reconstruction of a family structure on the basis of archaeological and demographic data (E. Strouhal), further results of the classification of the remains from Border Cave (G. van Vark), an attempt at interpreting a collection of data from south-eastern Spain with the help of principal craniometric components (M. Walker), biometrical comparisons of the dimensions of the palate of *Dryopithecus major* from Moroto (Uganda) with modern Catarrhines (R. Orban), and others.

Tuesday, September 30, was dedicated to the problems of aging: from auxology to gerontology.

The morning session was highlighted by the presentation of the joint paper by Eiben, Gyenis, Hauspie and Susanne, then followed A. H. Bittles' "Aging" and Mast's paper on "Methods of determining the age of the skeleton". The afternoon programme continued in three sections. E. Bonjardim dealt with the variation of the shoulder and pelvis width with regards to menarche in students. I. Fragozo concentrated on the anthropometry of female athletes, while M. Collell spoke about the morphology of young women in Catalonia. Factors influencing the menarche of girls in Sardinia were discussed by F. Giovanni, while P. Monari compared the methods of "status quo" with the retrospective method. M. Prokopc presented a paper on the aging of the Czechoslovak population, M. Vereauteren dealt with the secular trend in the age-conditioned cranial changes in adult Belgians. J. Brůžek and K. Hajniš spoke about the secular trend of the cranial dimensions in Czech children and C. Codina concentrated on the development of schoolboys from Barcelona between the years 1944—1979. L. Rosetta followed the causes of mortality rate in children up to 5 years of age, C. Prado studied the physical development of children from the families of diabetics and M. Szainer-Milart studied the relations between height, body mass and skinfolds in children and adolescents between the age of 7 and 18 years in Lublin. L. Bondioli prepared a paper on the involution of the skeleton, according to an X-ray experimental analysis with the use of a scanner laser densitometer and A. Jopkiewicz spoke about the age-connected changes in human constitution. A. Marques dealt with the growth of children in the first months of their life, R. Haispie made a longitudinal study of the growth of children in the first two decades of their life. G. Beunen spoke about the constants of distribution of subcutaneous fat in adolescent boys and C. Poissonet concentrated on the prenatal determination of obesity. The same day followed a parade of posters. They were evaluated within the framework of a competition. They focused on osteology, demography, growth, development and serology. The Czechoslovak poster (author Prokopc) was inscribed "What can be found out about ancient populations from their skeletal remains?" and presented the results of the analysis of a skeletal material from Roonka and its conclusions covered a broad field of palaeodemography, health condition, genetics, culture and the style of life.

Wednesday, October 1, was marked by a series of papers on the study of sexual dimorphism. After the opening address delivered by Professor M. F. Mesquita, O. Neyzi presented a survey of facts influencing growth during puberty. She tackled also the problems of the mechanisms triggering the puberty (limbic system, epiphysis) and she spoke also about the importance of velocity curves. She presented actual data about the peak of the puberal spurt in Turkey (girls at about 12 years and boys at 14 years), and tackled the causes of differences between the size of boys and girls (genetic based, potentiated by a stronger anabolic influence of the testosterone in early puberty). The growth spurt is followed by an increase of body weight with a 3—6 month delay. The deposition of fat during the puberty spurt shows also sexual differences. Similar differences can be seen also in the growth of the musculature. In conclusion O. Neyzi concentrated on the impact of genetic, nutritional, pathological, psychological, and a number of other environmental factors on the timing of puberty that can be very exactly determined in girls (through differences in the menarcheal age). — T. Sjøvold summarized the data of various tables and equations for the reconstruction of the body height with the help of the length of the long bones of the limbs. He concluded that the hitherto applied methods based on regression coefficients maximize the lowest values and minimize the highest ones. He sets up new equations which — according to his results — can be applied

for both sexes for a great variety of populations of various epochs and races. P. Tobias spoke of the absence of a secular trend of stature growth in the populations of the "Third World". He even admitted the existence of a negative secular trend, and proved it for the recent 95 years in the South-African Negroes. A detailed analysis had shown that there are three phases in the negative secular trend, each of them following a phase of improving the physical state (The Boer War in 1899—1902, the post-World War I period in 1919—20 and the decade involving World War II (1939—1949).

From the group of presentations realized in the afternoon session let us mention the paper on the androgen level and cognitive behaviour of men (K. Christiansen) and on the feedback between estrogens and the luteinization hormone in normal males and in hypogonadal males. J. Rude reported on significant differences in the correlation coefficients in the cranial dimensions of both sexes, H. Pilawska dealt with sexual differences in various samotypes of children in the 10—14 years age bracket, with special regards to their physical and psychical output.

Thursday, October 2, was dedicated to human genetics and to development. Following the opening words by Professor J. Machado Gruz, F. Salzano spoke about the gigantic polymorphism of the *Homo sapiens sapiens* species, graphically documented by the results of the constantly appearing new genetic systems. As an example he mentioned the population of contemporary Brazil, presenting its racial pattern (Amerindians, Whites, Mestizos, Negroes and recently arrived Asians) and the history of the individual components on the basis of demographic data. The examination of geographical samples of the population from various places has shown among other things, that the Europoids have up to 10 % of genes of African origin, while the Negroes have up to 50 % of genes of Europoid origin. It has been found out on the basis of 22 blood systems, blood groups, haptoglobins, serum protein, haemoglobulins, etc. that the South American Indians are closest to North American Indians and have less similar features with the Eskimoes, Siberians and Polynesians. Relations among the 21 Indian tribes subjected to tests were shown with the help of cluster analysis according to Cavalli-Sforza and of the principal component analysis with a three-dimensional dendrogramme. The migrations, described by the archeologists were compared with the frequency of the individual alleles (expressed by the 1st, 2nd and n-th principal components), were plotted in a map and showed certain coincidences. In conclusion he emphasized the importance of five research directions for the study of human evolution: 1. the research of DNA from mummies, eventually from skeletal remains (fossil genetics), 2. interspecific comparison of proteins — not only among primates, but also between them and between other animals, 3. analysis of DNA at nuclear level and at mitochondrial level (inherited from the maternal side), 4. morphological analysis of the chromosomes with the determination of genetic loci, 5. comparative study of the cultural development. — H. Walter acquainted the audience with the genetic differential process of the Indian populations. The topic of the papers read in the afternoon comprised cultural and social problems (migration and the social integration etc.). On the same day took place the second poster conference. Typically the posters were rather varied and were of high standard, both as to their contents and graphic design.

Friday, October 3, was reserved for the problem of bio-cultural interactions. After the opening address by Professor J. Pereira Neto, S. Fischbein dealt with the interaction of the environment with the process of education. He showed on the example of monozygotic twins, studied longitudinally, that in the process of determination in the children of blue-collar workers more frequently appear genetic influences, while in the children of the higher strata of the population are more frequent the peristatic influences. — P. Rudan presented a graphic example of mutually matching and complementing results of the multidisciplinary research of the population structure of the Adriatic islands of Hvar and Korčula and of the Pelješace peninsula. The various results can be explained by historical processes, namely by historically exactly determinable migrations (on the eastern parts of both islands), while the western halves have prevalently preserved their original population. This fact is documented also by the differences in the dialects, in the east and in the west. There are perceptible differences also in the physical dimensions and on

the Korčula Island also in the cranial dimensions. Estimates of the number of inhabitants in various centuries — as an indicator of population dynamics — reflected the impact of great epidemics, wars, economic crises (e.g. the drop in the production of wine in the year 1915), migration (of a population of the štokački dialect in the course of the 18th century) and of vaccination (since the year 1807, causing a spectacular increase of Korčula's population). The paper was an excellent example of the fruitfulness of the holistic approach to anthropology.

The afternoon was reserved for "the general assembly" of the members of the European Anthropological Association. In its course it was announced among other things that the 6th Congress would take place in July 1988, a week before the World Congress, of the IUAS in Zagreb, very probably in Budapest. The final address by Professor B. Chiarelli dealt with the biological and natural science basis of the anthropology in Europe.

On Saturday, October 4. there was an excursion to the valley of the River Tagus 60 km north-east of Lisbon, to a well known Epipalaeolithic archaeological site Muge.

Eugen Strouhal, Miroslav Prokopec

12th SCHOOL OF BIOLOGICAL ANTHROPOLOGY IN ZAGREB FROM 1st — 4th SEPTEMBER 1986

The main theme of the 12th school of biological anthropology has been "The Epidemiologic Importance of the increasing average age of people". Prof. William Stini from the USA chose this problematic for this year's school and consequently presided to all lectures. The last day of the school the 7th poster conference in Samobor near Zagreb has taken place.

After the official opening on 1st September with the speech of *Prof. Maver*, *Prof. Rudan* and the representative of the Zagreb University, *Prof. Stini* held the lecture on "New demography and epidemiology of ageing". He briefly mentioned the causes of death and of low average age in last centuries and in the beginning of the 20th century. As the main cause of death in the industrial society he designed the degenerative diseases. He further treated possibilities of studying these phenomena regarding the new knowledge of the modern science and in detail, the sexual dimorphism as to the ageing.

Prof. W. Ross (Canada) first reported in his lecture on "Body composition and ageing" the survey of methods applied for investigation of body composition and emphasized that individual components, excluding fat tissue, have no constant density. Not only sexual dimorphism is found in bones, but it differs also by the influence of activity and by the density of individual bones. Prof. Ross informed the participants on the O-scale system which he elaborated with his colleagues on the basis of his research.

Dr. J. Pařízková (Czechoslovakia) treated in her lecture on "Problems of body stature, nutrition and physical efficiency in middle-aged and older people" the conditions for the high age. She demonstrated the necessity of energetic balance of nutrition and adequate physical activity from the youth to the old age.

Prof. Dh. Plato (USA) treated in his lecture "The changes of mineral density in bones" following the growing age. He reported the loss of mineralization in different parts of a skeleton and showed examples losses of bone mass during the life (3 % loss of bone mass each 10 years) not only with regard to the sexual dimorphism but also to laterality of the body. On the basis of results of his longitudinal and cross-section research he stated a standard to which he relates the individual measured values and finds out the fracture risk both in long bones and vertebrae.

Prof. O. Eiben (Hungary) presented the developmental changes in growing and ageing in Hungarian population. He posed his lecture on demographical characteristics and growth studies of the given population.

Prof. E. Clegg (Scotland) treated in his lecture the mortality in one of Hebrides islands regarding the changing number of population. The data about the population have

been studied for more than 100 years. During the whole period a small increase of average age has been found, the mortality in pre-reproduction age being significantly lower. In the reproduction age the decrease has been significant only after the 2nd World War. A survey of death causes has been dealt.

Dr. M. Prokopec (Czechoslovakia) presented in the first part of his lecture the secular trend in Czechoslovakia and made a general survey of research in children and young people in Czechoslovakia. The present situation has been documented on the background of 20 different European samples. He emphasized the factors which significantly influence the growth. In the 2nd part of his lecture he focused on the ageing process. This has been studied on 2600 individuals from 15 to 60 years of age. Fifty-six measured traits including physiological ones have been divided up to their type of change in time (in %) and to those where the highest change passes in the youth, in the middle and old age. For documentation the most significant changes have been chosen from each group. They prove that changes in all characters do not pass in the same way and that there is a sexual dimorphism.

During the school the participants have been informed about the results of the studies in the Zagreb Anthropological laboratory and have seen the Department of the Institute in the hospital in Rebro.

Meeting with participants, Prof. Marko Šarič, Director of the Institute, has reported about the research in children from areas with the polluted atmosphere and in those from comparatively unpolluted areas. In his study he followed the occurrence of acute disease of upper respiratory tract in children and members of their families. No significant differences among children and their families in both groups have been found. The atmosphere of cities included however other waste products and factors which have not been studied; they could influence the results.

The school of biological anthropology is an important institution for young scholars. All lectures are on high scientific level and there is time enough for discussion about the problematic questions and for consultation of one's own knowledge. The possibility to study new approaches and methods and the contact with the experienced world experts is very appreciated and help too.

4th September — 7th poster conference in Samobor near Zagreb.

All participants of 12th school of biological anthropology including lecturers and scholars from Yugoslavia took part in the conference presided by Prof. de Wilde (Holland). Few shortened lectures have been presented and broadly discussed. The full text of contributions including graphic and photographic documentation was at the disposition during the course.

M. Prokopec and *L. Dutková* had a lecture on "Education of parents, their height and number of children" with applied data from the last national research of children and young people.

Further lectures have been as follows:

E. B. Bodzsar, J. Papai (Budapest): Secular trend in the age at menarche in Hungary.

V. Grahovac et al. (Zagreb): Bioanthropological change of old people and the general practitioners' practice.

G. Gyenis et al. (Budapest): Determination of bone ages in urban girls.

J. Maric et al. (Zagreb): The possibility of prediction of the success in some greco-roman wrestling techniques — the basis of some anthropometric measures.

J. Papai, E. B. Bodzsar (Budapest): Sexual maturation in urban girls.

L. J. Radovančević (Zagreb): Evaluation of age and family care of schizophrenics.

R. Sabol et al. (Zagreb): Comparison of attitudes of life regarding some psychosocial implications of younger and older cancer patients and medical personnel.

B. Volčanšek et al. (Zagreb): Relations among some anthropometrical measures and situational space in swimming.

A. G. de Wilde, H. M. W. Amez-Voorhoeve (Groningen): Dermatoglyphics and coronary heart disease (CHD).

The poster conference was a successful end of the 12th School of biological anthropology.

M. Prokopec, L. Dutková