(J. Piontek). In a young adult female from the 6th Dynasty nobility of ancient Aswan, Upper Egypt, areas of fine porosity were detected in several places of the skull and areas of coarse porosity were present in the postcranial skeleton, mainly at the epiphyses. Rejecting several possibilities, the case remained diagnostically unresolved (F. W. Rösing and M. Schultz). A high frequency of degenerative osteoarthritis with some cases of DISH and ankylosing spondylitis characterized palaeopathologically skeletons of the Late Avar Age (8th cent. A. D.) in Hungary (Gy. Pálfi). Sings of osteoporosis were studied by 6 different analytical methods in samples from the Danish Neolithic Passage Graves (4000--1800 B. C.), the Viking Period (800-1500 A. D.) and recent times. Bone mineral content was decreasing, the extent of the marrow cavity increasing and the organic/inorganic ratio rising (P. Bennike). A typical scaphocephalic skull, found among 400 skulls of the Medieval skeletal series from Breda, Netherlands, was studied from several viewpoints (S. T. Brooks et al.). Medical and ritual trepanations were found in the Protobulgarian people of northwest Bulgaria in a strikingly high frequency of 32 % (J. Jordanov). The involution of the alveolar process in the toothless mandible was measured by the method of Prágai et al. (1979) and expressed in several indices which showed a good correlation with individual age (F. Kósa). Asymmetry of the external cranial base was studied in a series of Medieval skulls from Kielce, Poland (M. Zadurska). High incidence of congenital anomalies due to isolation and endogamy, low life expectancy and high frequencies of caries, dental hypoplasia, periodontitis and abscesses were found in a Medieval population of the 9th-12th cent. A. D. living in an isolated valley in Cantabria, north of Spain (V. Galera and M. D. Garralda). 25 cases of syphilis coming from extensive skull collections from Vilnius and skeletal series of other places in Lithuania, dated 16th-18th cent. A. D., were detected and analysed according to the frequency of its characteristic features. Some generalizations about the spreading of the disease through Lithuania were drawn from these data (R. Jankauskas). Studied in 83 skulls from the 19th century Florence, the start of enamel hypoplasia could be fixed into the age between 1.5 and 3.5 years following the weaning period 1.0-1.5 years, attested from historical sources (J. M. Cecchi et al.). Diagnostic problems of some less frequent conditions of the vertebral palaeopathology, viz. of the vertebral compression caused by tumourous metastases, were presented in Medieval Czech series (L. Vyhnánek). A unique case of ectromelia brachialis — aplasia of the right humerus with adaptive changes in the right ulna connected with an inborn right-sided thoracic scoliosis with rib and sternal deformations, was detected in a population of the Early Medieval stronghold at Kalisz Zawodskie, Poland (A. Wiercińska). Secular changes in dental reduction, caries frequency and course of the periodontal disease were studied in one Neolithic and three successive series dated between 2nd and 12th cent. A. D. from Lithuania (I. Bal-

The participants in the Symposium enjoyed as well a variegated social programme. The exhibition "Man of the Last Millennium", prepared by M. Stłoukal, H. Hanáková and L. Vyhnánek was inaugurated in the State Archaeological Museum in Warsaw, a piano concert was offered in the Chopin's birth house at Zelazowa Wola and a cocktail party was organized in the Royal Castle in Warsaw. According to the announcement of the organizers, all the presented papers will be published in one of the two journals edited by B. Chiarelli of Florence. We would like to congratulate Professor Wiercińska and all her colleagues for this scientifically and socially very successful meeting.

Eugen Strouhal

## THE EIGHTH EUROPEAN MEETING OF THE PALEOPATHOLOGY ASSOCIATION

The colourful and vivid English medieval university crey of Cambridge was the host of about a hundred participants of the Eighth European Meeting of the Paleopathology Association on September 18-22, 1990. They came from different European countries, but also from the U.S.A. and even from Australia.

The Organising Committee - Janet Henderson, Juliet Rogers, Ann Stirland and Tony Waldron — prepared a rich, Rogers, Ann Sulfiant and programme. Oral communications but smoothly articulated programme. Oral communications but smoothly attributed in one of the University halls each morning and early afternoon. In a smaller hall in the famous King's and early afternoon. In and three workshops followed in late afternoon. An exhibition of pathological specimens from the Duckworth Collection were on display in the Department of Biological Anthropology and an exercise in inter-observer of Biological Anti-openion of osteoarthritis was prepared by T. Waldron and J. Rogers at King's College.

The King's College offered also for many participants full accommodation including daily meals in its great Dining Hall. An introductory reception and a closing conference dinner were served in the same place. Informal gatherings of the participants continued after dinner in the Common Room of the College. There were almost no gaps in the programme which would allow to escape for a visit of the beautiful King's College Chapel and other important monu-

ments of the city.

Oral communications were introduced by a welcome address by Eve Cockburn, pointing out the achievements of the Association but also problems which it is facing currently. The 44 read papers and 12 shown posters encompassed the whole range of the discipline. We shall not enumerate them one by one with the names of the authors, but condense them in 15 thematic groupings, defined by ourselves.

- 1. Concerning congenital disorders, two cases of achondroplastic dwarfs were demonstrated, one from the Old Kingdom tomb at Giza (Egypt), the other one of the Early Medieval period from Oosterbeintum (Friesland, The Netherlands). Hip joint dislocations showed a strikingly high frequency in the early Lappic populations of Norway. The features, evolution and aetiology of this disorder were studied in six 4th-13th cent. A. D. sites in France. Curious defects of the 3rd metatarsal and cuneiform were reviewed in various populations. A Down's syndrom like case was found in the 7200 year old California Indian cemetery at Santa Rosa Island.
- 2. The wide-spread phenomenon of traumatism was the theme of many papers, starting with its occurrence in the Middle Pleistocene skeleton from Atapuerca (Spain). In three of the four males buried together with horses in a Gallo-Roman collective grave in France violent traumatic injuries were observed, suggesting that they were either gladiators, executed, or sacrified people. Ante- and postmortem traumata and other pathological changes were studied in bog bodies from Britain and Danmark. Stubby thumb syndrom was found in the bog body from Lindow Moss (Cheshire). Tangential traumata from different periods of Spain were analyzed in relation to the type of used weapon. Some of the 33 individuals with unhealed blade injuries from a site in York, two traumatic cases from the Guisborough Priory in Cleveland (England) and a case showing disability following an injury from a medieval cemetery at Ipswich (Suffolk) were demonstrated in pictures. An age related study of spondylolysis in Hudson Bay Eskimos revealed it as a dynamic process beginning as a fatigue fracture. Treatment of trauma by reduction and/or splints was proved in large British Roman, Anglo-Saxon and Medieval samples. Fatal bullet wounds in a suicided male buried in the crypt of Christ Church at Spittalfields were previously not recognized by several human skeletal biologists. War injuries came from the War of Independence (1813) cemetery near Convent of Santa Clara at Tolosa (Basque Country)

3. In contrast with the previous theme, inflammations were dealt with only in a few communications or posters. They comprised a study on the incidence and mortality of bacterial pneumonia in a preagricultural group (4000 B. P.) and a group of farmers (1000 B. P.) from the coastal area of northern Chile, a strikingly high frequency of the chronic middle ear infection in a series of Egyptian Predynastic skulls from Naqada (4.8 %), a case of femoral osteomyelitis from the 10th cent. site at Sarretudvari (Hungary) and an analysis between the incidence of infection and ecology (nutrition) in the Trans-Mississipi South archaeological area.

4. Several papers were devoted to specific infections. Rib lesions caused most probably by tuberculosis were studied by SEM in a variety of British Roman and Medieval cemete

ries. The same lesions in the pre-contact ossuary from Uxbridge, Southern Ontario (Canada) showed the same morphology as the material from modern anatomical collections. The earliest known cases in Nordic countries of leprosy were revealed by recent archaeological excavations in Lund (Sweden) in about 50 individuals dated to end of the 10th and second half of the 11th centuries. Treponemal infection (yaws) was shown in a subrecent male from the Andaman Islands and skeletal manifestations of the same disease were analyzed in archaeological sites of Guam and Australia.

5. Only two communications dealt with tumours. Diagnostic possibilities of meningiomas in paleopathology were tested in a series of about 3000 skulls from Spain, ranging from the Neolithic period to the Middle Ages, in which 5 cases were detected. Some differential diagnostic features between myeloma multiplex and osteolytic metastatic carcinoma in

dry bones were outlined.

6. Degenerative changes in peripherical joints were studied as indicators of mechanical stress in series of American Whites and Negroes, American Indians and Alaskan Eskimos. Biomechanical relationship in the development of the degenerative joint disease of the spine was examined in two series from Christian cemeteries at Kolubnarti (Sudanese

Nubia).

7. Of the metabolic diseases, the problem of diagnosis of osteoporosis seems to have been solved by application of modern methods as histomorphometry, SEM, microradiography and chemical analysis. Also the relationship of osteoporosis to fracture was studied. Another author used the mentioned methods plus radiography to study the incidence of osteoporosis in series of bones from Danish Neolithic, Viking Middle Ages and modern periods. A decrease in bone mineral content was found. Dealing with porotic hyperostosis, diagnostic criteria were elaborated to distinguish between acquired kinds (e.g. iron deficiency or pernicious anaemia) and those of genetic origin (e.g. sickle cell anaemia or thalassaemia). By SEM examination of the bone marrow cavities "fossilized" red blood cells were detected in skeletons from the Hellenistic period in the Persian Gulf. Comparisons were made between those of normal individuals and those with porotic hyperostosis based on a chronic anaemia. Techniques for analysis of renal and biliary calculi - chemical, SEM and spectrophotometry - were applied to three cases from different sites in Spain. The same stones together with other calcified soft tissues and organic concretions are often overlooked in excavations, yet they can provide important information on diet, lifestyle, infection and morbidity of the affected individuals.

8. From endocrinological disorders, the possibility of using radiological diagnostic criteria of pituitary disease in skeletal remains was tested in a series of Pre-Dynastic Egyptian skulls compared with Burmese skulls and radiographs of

a sample of contemporary people from Cambridge.

9. The importance of parasitological diseases was shown recently in mummy studies. Analyses of coprolites and mummies from Peru and Chile revealed the presence of the fish

tapeworm Diphyllobothrium pacificum. A recent examination of 21 mummies from Northern Chile dated 4000 B. P. confirmed that this infestation was common. A naturally mummified young girl from a 19th century ossuary in Toledo (Spain) showed the affliction of her forearm muscles with Trichinella spiralis worms. A new species of mosquito was found fossilized in the Pleistocene ambers of Tanzania, responsible for transmission of malaria among wild primates of East Africa. An example studied by microscope still contained in its digestive tract primate blood remains.

10. From chronic poisoning, ergotism can cause ischemic bone necrosis with other features which were outlined in

order to differentiate this problem and leprosy.

11. From the systemic bone diseases of unclear origin Paget disease was dealt with in two contributions. A case of it was described from the medieval church of St. Margaret Incombusto in Norwich (England) and the importance of SEM/BSE imaging for the differentiation of normal, pathological and diagnetically altered bone tissue was shown in

two probable cases of the disease.

12. Examples of broader populational studies of paleopathology were shown in Iron Age populations from Abruzzo in central Italy, in a series from the 17th cent. cemetery of the hospital St. Mary d'Urso, in comparison of health state between Late Byzantine and Early Turkish period populations of Pergamon (Western Anatolia), in evaluation of the disease stress in Late Prehistoric Indians of central Tennessee in relation to location of their settlements, and in the study of transition from hunting-foraging to agricultural and pastoral ways of life in 21 prehistoric series from South Asia, showing reduction in muscular-skeletal robusticity, increase in the incidence of infections and a decline in realization of full potentials of growth and development.

13. From currently introduced methods in paleopathology, immunochemical techniques have been recently applied to dry bones in order to demonstrate the survival of antigenically recognizable complexes within the preserved organic matrices. A methodically important study distinguished radiologically between the matrical (developmental) and sclerotic

(age-related) manubrio-sternal synostosis.

14. Problems of identification of historical personages were demonstrated in the New Kingdom royal mummies from the Cairo Museum. Identifications based upon craniofacial variables rather than historical indications (mummy

labels) resulted in a newly designed mummy list.

15. The confrontation between the biological age and chronological age was possible in 16 juveniles buried in the crypts of St. Bride's Church (Fleet Street, London). Calcification and eruption of the teeth was found to have been similar to that seen in modern populations, but the long bone length gave an estimated age up to five years behind the actual recorded age. The skeletons are dated between 1794 and 1814, a period of poor social situation at the beginning of the Industrial Revolution in England, and this might be an explanation for this very important find.

Eugen Strouhal