

returning to the field of visual anthropology. Its central mission is to integrate our profession internationally through the establishment of a communication network involving scientists, film-makers and communications specialists and to promote the application of the resolution on visual anthropology of the ICAES, Chicago, 1973. The Commission is aware that in the past decade no coordinated effort has been made to visually document rapidly vanishing cultures. The task of applying a systematic sample to traditional cultures for visual study is more urgent than ever. Equally important is the objective of locating existing ethnographic film records and preserving them from destruction. The Commission fully admits the validity of different recording objectives and styles aiming at a variety of uses and related audiences: national or international television and all levels of classroom instruction. The Commission will particularly encourage the use of audiovisual materials for scholarly research.

A serious international programme of visual recording should evolve in step with a provision for the training of a new generation of visual anthropologists, of which there is a dire need. In a rapidly shrinking world threatened by xenophobia it is imperative that visual ethnographies be around the widest national and international diffusion as an efficient format for cross-cultural understanding. All this rests on the clear assumption that visual anthropology is fully part of anthropology with the special ability to express succinctly the anthropological message and diffuse it to wide audiences.

In the exercise of its mission the Commission on Visual Anthropology adopts a policy of openness and collaboration with specialists from other fields; it avoids favouring a particular branch of the discipline to the detriment of others and it further seeks to avoid supporting personality cults or factional interests. The Commission will make a concerted effort to promote activities by Third World institutions.

The Commission will act as an international clearing house for information related to all aspects of visual anthropology including training possibilities, field production projects and distribution and use of audiovisuals and related materials.

The Commission will organize biannual international meetings on selected themes pertaining to our discipline leading to serial publications.

The Commission will also sponsor significant field projects, preferably initiated by Third World institutions. Such an initial project could consist in the institution of visual anthropology units in Third World national museums with the task of assembling video records of local vanishing cultures.

Aasen Balikei

#### THE SYMPOSIUM "SCIENCE IN EGYPTOLOGY" IN MANCHESTER

Five years after the first symposium dedicated to advanced scientific and medical methods applied in Egyptology and archaeology, organized by the Department of Egyptology of the University of Manchester in England headed by Dr. A. R. David (Msc) there was another successful meeting of Egyptologists in Manchester between June 26-30, 1984. The event was attended by 83 delegates from 15 countries, including Czechoslovakia and Poland. A total of 60 papers were presented in 6 sections dealing with mummification, osteology and study of dentition, radiology, palaeopathology, scientific techniques and science and Egyptology.

The Manchester Museum has won excellent renown in the past decade in the study of ancient Egyptian mummies and mummification techniques thanks to the multidisciplinary research it organized with the participation of some of the leading specialists. The results of the first stage have been published in detail (Manchester Museum Mummy Project, edited by A. R. David, Manchester Museum 1979). At present runs already the second phase of the research with the application of serology and endoscopy connected with the foundation of an international data bank comprising data on mummies from the world's foremost collections. The

most numerous data come from British collections ( $n = 134$ ), followed by mummies in Czechoslovak collections processed by a research team in the years 1972-1974 and also published (E. Strouhal, I. Vyhnanek, Egyptian Mummies in Czechoslovak Collections, Štorník Národního muzea, 35 B, 1979). A similar project was started in the year 1982 by the Munich University. At present conservationists views begin to prevail, i.e. views that mummies represent unique and irreplaceable museum materials. It is therefore necessary to avoid the use of destructive methods, such as unwrapping and autopsy of mummies. Czechoslovak researchers upheld this approach from the very beginning of the mummy research in this country. We preferred non-destructive methods, such as X-raying. A. E. David in her thorough paper dealt with various methods that can be, and sometimes must be, used for the preservation of mummies. T. Dzierzykay-Rogalski drew attention to the problems of protecting the mummies in Egypt proper and put forward a suggestion to schedule the mummies on a worldwide scale. Other papers dealt with the survival of mummification in Egypt during the early periods of Christianity, about the detection of remnants of articulation (fles, lice, itch-mite insects, ticks, etc.) in the mummies, and about the dermatoglyphs of the group of royal mummies in the Cairo Museum. I was able to document four cases of removing the brains from mummies, reliably dated to the Mid-Empire; up to recently the application of this intervention was put into the mid-18th Dynasty, i.e. one thousand years later.

The main attention of the osteological-dental section focused on the results of the research of skulls found in Reisner's excavations of mastabas in the vicinity of the Great Pyramid near Giza, on the often discussed theory of post-Mesolithic reduction of the face in Sudanese Nubia, on determining the trace elements in the teeth of mummies in the Bristol Museum and compared with the present level of trace elements in the dentition, with the study of individual genetic relationship - here more emphasis should be placed on the epigenetic and rare characters than on the metric characters, on the microscopic study of the micro-wear of teeth as an indicator that certain individuals are prevalently vegetable food and on documenting the diseases of ears, nose and throat in the ancient Egyptian population.

A number of papers dealt with the results of radiological research of the mummies. The mysterious shadow on the margins of annulus fibrosus of the intervertebral discs; in the view of one group they are caused by saturation with calcium silicate from caustic soda, in the view of others by resin. Anyhow it is not a manifestation of disease it is the result of mummifications. The five mummies and the three isolated mummified heads recently acquired by the Manchester Museum were subjected to radiological research with the use of its latest method, the so-called computerized tomography used in the research of mummies both in the Minneapolis Museum (U.S.A.) and also in Stockholm. With the help of this method it was possible to detect in some cases remnants of contracted brains, brain membrane, pleura, pericardium, remnants of the heart, lungs, liver and kidney. The research methods have been enriched also by having a look inside the mummy with the help of an endoscope. With endoscope we can also select and take samples of tissues for histological research. An enterprising company staged an exposition of the most advanced endoscopes in the hall in front of the lecture room. The papers presented by E. Strouhal, Kvičala and Vyhnanek (all three from Czechoslovakia) compared the diagnostic capabilities of the conventional radiological approach and of computerized tomography on studying the nasal skeleton destroyed during the removal of the brains, dealt with the problem of distinguishing various filling materials from remnants of tissues in the braincase and with determining the fillings of orbits, nose, mouth, throat and subcutaneous parts. Their papers were based on the study of 22 isolated heads of mummies from Czechoslovak collections.

For palaeopathological studies various staining histological methods and histochemical methods are used alongside with electron microscopy and other advanced methods. With the help of these methods it was possible to detect

various parasites in the mummies, but also pathological changes of the lung tissue and skin, hydatidotic cysts in the brain membranes, changes in the preservation of the microstructure of the hair in the course of time, etc. Other paper critically assessed the problem of determining blood groups. It can be complicated by the alteration of antigens, through contaminations (absorption) by a different, e.g. bacterial or vegetable antigens or through insufficient titration of the antibodies, etc. A very interesting case of hydrocephalus of a 10 years old child from the X culture series in Sudan and two new cases of malignant tumours — a metastasis of the carcinoma of breast with osteolytic focuses in the skull, vertebrae and pelvis, and a metastasis of the carcinoma of prostata with osteoblastic focuses on the skull vault and in the pelvis. On studying the palaeophysiology of the remodeling of bones it appeared that the osteons react very sensitively on various physiological and pathological influences and thus their counting in order to determine the age of the individual lacks reliability. In certain series of the Nubian material part of the osteotomes was characteristically stained by tetracycline. The author of the paper holds about this surprising fact that the tetracycline got into the lifetime of the individual, with the food, e.g. with bread or beer infected with moulds. It is believed, due to the complete absence of infections of this kind in contemporary skeletons, that people have later become more resistant. The higher resistance of the contemporary populations can be documented by comparing the death rates of children of various populations with or without tetracycline. Other paper dealt with the history of surgery in ancient Egypt. Surgery reached remarkable level on empirical basis already in the Ancient Empire, this development, however, slowed down later and the methods stagnated. The latest advanced methods of analysing bone collagen are a potentially new means for the reconstruction of the diet of the ancient populations. Some scholars were able to isolate even deoxyribonucleic acid from the cores of mummy cells and to determine the order of their structural components. These new means open up new ways of studying molecular genetics in the by-gone epochs.

G. W. A. Newton presented in the sections of scientific

techniques and science and of Egyptology a survey of various dating and provenance determining methods used in Egyptology and in general archaeology ( $C_{14}$  with regards to dendrochronology, thermoluminescence, optical emission spectroscopy, X-ray fluorescence, atomic absorption, neutron activation analysis, dating by determining the geomagnetic intensity, etc). Other papers assessed the application of some of these methods with regards to certain special problems. So e.g. the pottery discovered at the Kahun settlement was regarded by Petrie as foreign import and the neutron activation analysis really managed to distinguish this pottery from other three groups of local Egyptian pottery. The analysis of copper ores, model tools and real working tools from the same locality has shown that some arsenic and tin was added to the real tools to increase their hardness. The analysis of metal objects from Petrie's collection leads to the conclusion that the two additions appear in the weapons of the period in an even higher amount than in the tools. New analyses of a tuff of cotton taken from mummy PUM II (dated to  $170 \pm 70$  B.C.) led to the discovery of a cotton seed, documenting that it was a cultivated variety, the hitherto oldest known from Africa. The analyses of textiles from Kahun concentrated on weaves (of linen), on materials (flax) and on the used state (horizontal). The papers by E. Strouhal, V. Čejka, V. Urbanec and V. Hrušková focused on elementary analysis of the pottery discovered during the Czechoslovak-sponsored research of the burial of Princess Chekeretnebi in Abusir. The vessels placed as burial offerings of the deceased and the vessels used for filling the space of the tomb appeared to be of various composition. The participants of the symposium were shocked by the paper of J. Davidovits. He studied the lining blocks of Khufu's Pyramids and concluded that they are "synthetically" manufactured stones cast into moulds. The reaction by R. Germer emphasized that it was necessary to exercise utmost caution on voicing such conclusions. It is necessary to master perfectly the scientific methods applied and be fully aware of the limits of their interpretation. Only thus can we benefit from the application of the methods of natural and medical sciences on solving various problems of the social sciences.

Eugene Strouhal