## THE FUTURE OF THE CLASSICAL ARCHAEOLOGIST

Wanting to outline the future of classical archaeology herein is certainly audacious, as no one can make a reliable prediction of what the profession of an archaeologist will look like at the end of the twentieth century. Besides every one of us makes his or her own experiences, draws his or her personal perspectives and, depending on his or her possibilities, influences the framework and culture-political correlations of the individual structure of the society in which he is embedded.

The organisers of the conference « Data and Image Processing in Classical Archaeology » asked me to deal with a general question of the future of archaeology and to place this question in connection with media technological usage. I would like to give an answer to this in a very personal statement. It is based on the experience of my archaeological research and practical work and my entry into an institution with great perspectives for the future — the new « Zentrum für Kunst und Medientechnologie » (Centre for Art and Media Technology) in Karlsruhe which I would like to present here first.

This institution — in short called ZKM — was founded three years ago as a public foundation and is supported by the city of Karlsruhe and the state of Baden-Württemberg. Until it moves into a newly erected building in about another three years, it is still to be seen as being in its initial stage. In the meantime already thirty people from various countries — artists, scientists, technicians and general personnel — work at the ZKM; in its final stage there will altogether be about eighty people.

Different facilities are united at the ZKM with one mutual aim: to create a link between the traditional arts — fine arts, music and interpretative arts — and the new digital techniques and to give the general public the opportunity to make use of this link. Thus, the main objectives are the novel fields of contemporary art, research, development, presentation and also archiving of audiovisual media art — and not research on or even production of media technology or its conventional development and application. I emphasize this explicitly so that no misunderstandings occur due to the somewhat misleading name « Zentrum für Kunst und Medientechnologie ».

The ZKM is set up as follows: Just like in an electronic "Bauhaus", computer laboratories, studios and workshops comprise the heart of the ZKM. These are mutually used by different institutions and are, depending on the individual requirements, equipped in very different ways.

The « Institut für Bildmedien » (Institute for Image Media) is concerned

with the creation of electronic images, ranging from computer graphics, videoanimation or holography to the novel simulation media called "cyberspace" and "virtual reality".

The « Institut für Musik und Akustik » (Institute for Music and Acoustics) is concerned with electronic music and acoustic ways of perception. From the field of sound synthesis to live-electronics new spheres of sound are discovered, analysed and formed for artistic purposes.

In the « Medientheater » (Media Theatre) of the ZKM both own productions, created in the studios and institutions, and guest performances are to be presented to the general public. This is where an international art scene will be able to use an adequate platform for novel multimedia experiments.

A further facility is the « Medienmuseum » (Media Museum) of the ZKM. On the one hand the history of communication and the development of the various kinds of media is shown and on the other hand an understanding of the structure and function of media technology is conveyed by interactive exhibits in this museum. In contrast to a traditional museum of technology in which the visitor is usually confronted with secluded apparatuses and a nostalgic presentation of genuine objects of value, we would like to see the visitor in the Medienmuseum perceive that what he can experience by means of his or her senses, as the history of the development of the new media is likewise the story of the way mankind experiences reality. This is strikingly illustrated by, for instance, the visualisation of our environment by means of large panoramas around 1800, by the reproduction procedure of photography and film in the 19th century, by the simulative "real time experience" of television and finally by the mere fiction of reality created by the computer simulations and animations of today.

The « Museum für Gegenwartskunst » (Museum of Contemporary Art) of the ZKM is in some way conceived as the antipode to the Medienmuseum. Without the museum-educational impetus it initially places the work of art itself into the centre of focus and regards itself as a "museum of pluralism", as a "museum of all types" of contemporary art. The collection of media works of art constitutes one of the major parts — the first of its kind in the possession of the public. Some of them will, by the way, be presented in the Miró Museum in Barcelona during this year's Summer Olympic Games. They range from electronic objects and holograms over video installations to multimedia sculptures and interactive computer controlled installations.

Finally, the « Mediathek » (Media Library) of the ZKM will certainly be of particular interest to the public. It consists of a library, an audio library and a video library for art and media technology of the twentieth century. The Mediathek files and documents the historical and present development of international media art. Presently we are working on a network via mainframe, which

renders the possibility to, for instance, compare a piece of music with its corresponding notation and secondary literature or to set it beside a performance of the same time or any other image document of the "art in motion".

In addition to an extensive collection and user-oriented presentation, the main objective of the Mediathek is to preserve the endangered picture and sound tracks by means of digital recording. It also focuses on the editing and distribution of video art, which is paradoxically still a "crippled mass media", as well as on the current electronic music, which is still difficult to get.

The establishment of the ZKM is certainly a consequent and also a very ambitious reaction to the process of development of the modern trend, the state of the art of which can hardly be assessed. This is the basis on which I would like to place the question posed at the beginning concerning the future of the classical archaeologist. It has long become a philosophical and society-critical question, which does not only concern our field, but which is of fundamental importance for the reflection respectively position-finding of the Arts within our information society which is, in the meantime, constituting itself. An institution like the ZKM is only one facet in the ever increasing jungle of initiatives, individual projects or already established institutions which have devoted themselves to the no longer all too new media technology. After the speedy development of the last 30 years the second generation of users has also passed the initial stage.

A glance back to the first computer aided surveys, as, for example, can be seen in the journal « Archaeographie » of the late 1960s, are nothing but "cute". The presentation of the various American and European projects during this conference documents the, in the meantime, attained technical standard and manifold possibilities of application of media technology — also for the field of archaeology. Among others the modern forms of documentation and analytic methods used in excavations and the possibilities of application, for instance, by means of 3D-computer simulations are here to be added.

But all this is nothing but a harmless approach compared to the immense spectrum of text, sound and image processing which, especially in the commercial field, will also be made available at numerous trade fairs and festivals in this year: just to name a few the ICOGRAPHICS in Milan, the CeBIT in Hanover, « The Robots — Men and Machine » in Nagoya, the "ars electronica" in Linz, the SIGGRAPH in Chicago, the GRAPHICON in Moscow or the IMAGINA in Monte Carlo.

The world has changed. Time will show whether it will become a "brave new world". I do not even want to think of the partly apocalyptic visions of the media critics, such as Baudrillard, Flusser, Virilio or Kittler — it is sufficient to know that we have thrust ourselves into a new dependency — the de-

pendency on the myth of technology, by doing away with some of the barriers between Arts and Science, the two cultures of a bipolar world, and this in spite of all manifestations of autonomy.

We have emerged from being midgets of knowledge to being giants of information. But what are we to do with this potential? In which way can we reasonably structure the flood of information available to us? Which criteria, which commitments can be defined, in order to be able to differentiate between the opinions based on technical models of argumentation and genuine, objective knowledge? The hypotheses of a complete reconstruction of ancient epochs and cultures could eventually drift towards an ever more perfect imaginary world. The slippery surface of computer simulation, which is nothing but effect and illusion, could become the reflection of a new chain of arguments for archaeology. If media technology then becomes a means for itself and we magically produce a reconstruction of the ancient times as a directly, interactively created field of experience, as "virtual reality" in our libraries, respectively, on our monitors — who will in future still be aware of which new mischief — admittedly on a very high technical level — is done?

This is certainly a somewhat exaggerated stand-point of an "advocatus diaboli" and perhaps surprising, if drawn by a representative of a new, future oriented cultural institution. But I do ask myself, whether the exploitation of the novel technical possibilities really is the crucial question for the future in our field. It is, of course, ridiculous to query the computer aided storing of data and data processing. It has long become a necessary aid, a self-evident tool. It enables us to set up piles of ever more data and to obtain complex information at ever greater speeds. But what do we do with the thus gained time? Are we still able to develop new archaeological questions?

Finally, a totally pragmatic question is involved, namely the necessity of a critical survey of the cost-profit ratio. The initial costs will definitely be very high even though the hardware for PCs is becoming increasingly cheaper. But the successive costs are those which count — namely the increasing demand towards more professional equipment, the installation of new software, the attainment of international standards or of a multimedia network.

Media technology does, indeed, render thus far unforeseen possibilities to music and the fine arts. The search for new ways of expression, for a reality of the immaterial, is the central point of interest and partly also the autonomy of the novel field of art. Possibly, a new definition of aims, a reflection on new perspectives pertaining to the contents is, however, asked for in archaeology, which reaches far beyond the mere reflections on purpose.

For it is merely a question of time until one of the traditionally main tasks of archaeological research and publication has been fulfilled: the gathering, categorisation and documentation of the material artefacts of ancient cultures. This fundamental information will be stored in electronic data banks and will in future be accessible by means of an international network. As soon as the gathering and documentation of archaeological material has been completed we will gain a considerable amount of time. We have to take advantage of this development and formulate new tasks for archaeology. Presently, this is nothing but wishful thinking — a wish even this conference was not able to fulfil.

I would not like this outlook to be understood as the destruction of progress, but merely as a warning against blind media euphoria. The archaeologist "caught in the net of the systems" — that would really be a doubtful vision of the future.

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