

## DATA AND IMAGE PROCESSING IN CLASSICAL ARCHAEOLOGY AN INTRODUCTION

In the spring of 1990, when I had the good fortune to attend a conference in Ravello, the Director of its European University Centre for the Cultural Heritage, Professor Tony Hackens, encouraged participants to propose subjects for future conferences. He enthusiastically supported my proposal of *Data and Image Processing in Classical Archaeology* and won approval for it from the European Science Foundation's PACT programme.

*Data and Image Processing in Classical Archaeology* exemplifies *l'esprit de Ravello*, the guiding principle of the European University Centre, by bringing interdisciplinary research to a subject of unique importance to the cultural heritage of Europe. Classical Archaeology's exploitation of scientific methods of analysis was well established decades ago. Its exploitation of Information Technology is relatively new, but already remarkably successful, not only in scholarly research but also in its global dissemination to the public domain.

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'Classical' is taken to mean ancient Greek and Roman, 'archaeology' the study of artifacts made by man to serve many different purposes. Archaeological objects can be analyzed by scientific methods, but many can also be studied as fine art. The classification element makes the material ideal for computerization; the fine art potential ensures that its documentation is appreciated widely. Classical art is the foundation of European art. The rediscovery of classical antiquity, which inspired artists from the time of the Renaissance onwards, is represented by two of the twelve academic projects presented here.

One of the aims of the conference was to bring together world leaders of major academic research projects. Many of these are already highly computerized and one is already 'online' over international telecommunication networks. Ideally there would have been a balance of projects by subject and nationality, but this proved impossible to achieve because too little was known about the extent to which Information Technology had already been applied. Publication of these proceedings will stimulate directors of related projects to make their work known. If the conference takes place again, in a few years time, the range of subjects will be wider. The areas of technical expertise will certainly be different.

The technical subjects chosen for discussion were those which held the greatest interest for classical archaeologists. They are primarily concerned with imaging and networking (the resolution and compression of images, the legal pro-

blems of copyright, and the transmission of data and image internationally) and multi-media programmes for education.

Another aim of the conference was to introduce academics to experts in the commercial sector who are creating the technology which will ultimately serve them. Often the lapse in time between the commercial design and its application to the educational sector is long. Creating closer relations between the two reduces the gap to the advantage of both. The European Commission is actively pursuing means of bringing the commercial and educational sectors into productive working relationships. The EEC's policy on linking Art and Information Technology was explained by Dominique Gonthier who represented Délégation Général XII for Information Technology in Brussels. Of particular importance was his proposed initiative to explore means of applying Information Technology to Art and Culture through a European Cultural Interest Group.

A major new EEC telecommunications project RAMA (Remote Access to Museum Archives) was described to the conference by its Director, Dr James Hemsley. Archaeological, Fine Art and Natural History museums within Europe will work with the commercial sector to develop telecommunication facilities for text and image which, it is hoped, can be used by all museums.

The conference took place in the Centro Universitario Europeo and the emphasis was on European collaboration, but there was also representation from outside Europe. In view of the potential which Information Technology offers for telecommunications the European Commission encourages closer relations especially with North America to promote international standards. There is now intense interest in networking and standards on both sides of the Atlantic. Some of the Europeans and Americans most actively involved in this work took part in the conference.

Within Europe Italy is most actively involved in the application of Information Technology to the analysis and preservation of the cultural heritage. It is therefore most appropriate that Dr Paola Moscati, Editor of «Archeologia e Calcolatori», attended the conference and has agreed to this publication of its proceedings.

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