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Antoinette Caruana Heritage Malta I would like to acknowledge the support of Mr Joseph Schiro, Director of the Malta Centre for Restoration for forwarding details relating to the MCR digitisation projects.

The Maltese Islands, Malta, Gozo and Comino, lying virtually at the centre of the Mediterranean, are steeped in 7000 years of history. The tiny archipelago covers an area of only 316 sq km. The longest distance on Malta is 27 km and the widest point only 14.5 km whilst the population is less than 400,000. The islands are fortunate to have a prestigious heritage legacy which traces civilisations over thousands of years. However much still needs to be done to create the awareness, education and programmes necessary not only to preserve our historic sites (include world heritage sites) and museums but also to develop the esteem for our heritage by the Maltese people and our many visitors (over 1 million per annum). For a hundred years, since 1903, Malta benefited from the setting up and development of a number of museums that took on the above-mentioned Herculean task in spite of many constraints. In 2002, the much-awaited Cultural Heritage Act was passed in parliament that catalysed the heritage sector. The previous museums department was replaced by the set up of a number of entities charged with clear responsibilities and accountabilities. These include the Committee of Guarantee which is aimed to ensure and facilitate the collaboration between the different agencies with direct or indirect responsibility for the protection and management of the cultural heritage sector as well as advise the Government on the national strategy for cultural heritage and subsequently oversee and monitor the implementation of the strategy as adopted by Government and as directed by the minister.

The three other organisations set up as a result of the Act are the Superintendence, the Malta Centre for Restoration and Heritage Malta. The Superintendence of Cultural Heritage was set up to fulfil the duties of the state to ensure the protection and accessibility of cultural heritage. The Malta Centre for Restoration, established jointly with the minister responsible for education (together with the University of Malta) was set up to become a centre of excellence for the teaching, training, research and practice of conservation, restoration, maintenance, management and presentation of the cultural heritage, and to provide conservation and restoration services and consultation as may be required by other bodies, both public and private. Heritage Malta is the operating agency responsible for the management, marketing, interpretation and conservation of Malta's national museums and heritage sites. All organisations have started on ambitions programmes to be able to meet the objectives for which they are set up. These plans are coordinated through the ministry responsible for cultural heritage, i.e. Ministry for Youth and the Arts. There are various ways in which the cultural sector in Malta can forge ahead and make real strides forward. One of the more available means to achieve this is through digitisation. Details are provided below of the digitisation activities taking place in state organisations. Various other initiatives relating to digitisation have been introduced in private museums including multi-media presentation, touch screen information and heritage cds. The Ministry responsible for culture is not only coordinating a Website for the ministry that focuses on all areas of its responsibility but is also more specifically, coordinating a database of all organisations in the Maltese Islands that are

associated with the Heritage Sector. This will support



the development of networks, accessibility of information and sharing of data among willing partners. It is an important move forward. The Superintendence of Cultural Heritage is currently also developing a digitisation project related to the compilation of a national inventory of cultural property belonging to the State or State institutions, to the Catholic Church and to other religious denominations, to Foundations established on these islands and to physical and juridical persons when the cultural property has been made accessible to the public, or when such persons have given their consent for such purpose. This is a long-term project of great importance to the heritage sector in Malta. Heritage Malta has also in the past nine months embarked on a series of initiatives focussed on education and learning, accessibility, the generation of economic and tourism funding as well as the restructuring of the organisation. Digitisation is key tool in supporting the organisation to achieve these objectives. Initiatives in digitisation include:

Heritage Malta Website

Heritage Malta launched its Website towards the end of July this year. This Website is attracting much interest with a growing number of hits. There were in fact between 5000-6000 hits in October. Comments regarding layout and information have proved favourable. Links with other Websites have been developed and persons are invited to comment through an info email address. The Website is regularly updated and provides information on all Heritage Malta sites and museums as well as activities, initiatives and events.

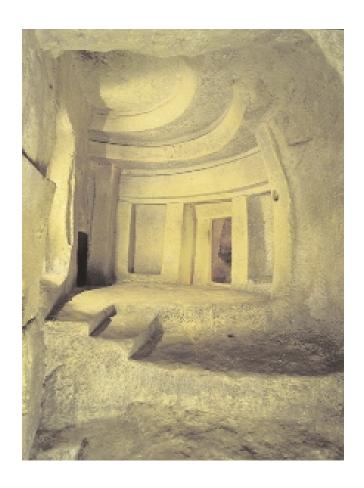
# Automated Ticketing

Although in its early stages, Heritage Malta has introduced an automated ticketing system that will

eventually link up all sites and provide ready and more realistic information regarding visitors, sales, etc. Heritage Malta is planning to introduce a 'pre-booking' ticketing service through its Website for visitors who wish to visit the Hal Saflieni Hypogeum World Heritage Site that takes only a limited number of visitors per day due to conservation issues.

## EU programmes

Besides the MINERVA Programme in which Heritage Malta is delighted to participate, we are also actively participating in a number of other EU programmes including Culture 2000 programmes, Leonardo Da Vinci and Socrates. Where possible, Heritage Malta is seeking to introduce a digital outcome for projects it enters into that may make access easier for different visitors including children, disabled visitors, etc.







Digitisation for surveillance and conservation
Heritage Malta is currently embarking on a status report
relating to the surveillance of its heritage sites
and museums. Use of digitisation will be considered
a favourable option and has been introduced in a few
of our sites. With respect to conservation, as noted
below, Heritage Malta is working with the Malta Centre
for Restoration to undertake the most appropriate
conservation.

### Photo Library

Heritage Malta has set up a digital photo library available to students, publishers and for other research and general purposes. These are more recent professional photographs as well as rather old photographs, which are a heritage in themselves.

#### Inventory

One other project relating to digitisation which is still in its infancy but critical to Heritage Malta, is the setting up of the inventory of all its museums, sites and related collections. This needs to be co-ordinated with the Superintendence as described above.

## Malta Centre for Restoration

Ikonos and Map Cataloguing digitisation projects
Since its inception in May 1999, there has been a policy
at MCR to go digital. In other words, all documentation
is captured digitally. All conservation reports at MCR
which include photographs whether normal, UV or IR,
and diagnostic investigations are stored in digital
format. Only X-ray photography is not digital.
Digital techniques in cultural heritage applications
has become in fact one of MCR's areas of niche
specialization and this has particular ramifications
in the documentation sector.

MCR's Documentation Division has already pioneered the application of laser scanning techniques to the world's oldest free-standing man-made structures that are managed by Heritage Malta, the Ggantija temples in Gozo. It has also carried out surveys of the same structures using digital photogrammetry. This makes MCR, the first conservation centre in Europe to be equipped with two of the latest state-of-the art laser scanners and seven work-stations for restitution in both laser scanning and digital photgrammetry. This experience has prompted it to devise new techniques aimed at achieving a hybrid approach to laser scanning and photogrammetry thus cutting costs, saving time and enhancing data acquisition processes and software design. For this innovative hybrid approach a new word, thealasermetry, has been coined and various papers in international fora have been presented and accepted for publication.

#### **IKONOS**

IKONOS is a Euromed Heritage II project, for which MCR is Contracting Authority to the European Commission. The IKONOS project is the first major step towards implementing a strategy designed to make full use of ICT and multi-media technologies within conservation education in the participating countries of the consortium partners.

MCR has devised innovative means of utilising the latest satellite bandwidth pool technology to achieve cost-effective methods of overcoming telecom infrastructure difficulties in distance learning. The target groups include dozens of conservators and hundreds of students in the various institutions of the partner countries who are being given access to specialised training which would otherwise have been inaccessible. Video-conferencing and the Internet is being used



to agree criteria, catalogue artefacts, train trainers and teach students.

MCR, who initiated and designed the IKONOS project, now leads the consortium charged with implementing the project. 80% of IKONOS costs are funded by the European Union through the Euromed Heritage II Programme. The project was granted funds of just under 3 million Euros spread over a three year period. Besides the Malta Centre for Restoration, the partners in the IKONOS project include the Musée National de Setif of Algeria, the Laboratoire de Transmission et de Traitement d'Images of Morocco, the Faculty of Natural Sciences of the Aristotle University of Thessaloniki of Greece, the Institute of Archaeology and Anthropology of Yarmouk University of Jordan, ICN in the Netherlands, and Historic Scotland of Scotland, UK. This project will also prepare the ground for further projects that the Malta Centre of Restoration and its consortium partners will be working on in the very near future. On the 29th March 2003, MCR made history by inaugurating the first purpose-designed network aimed at providing satelliteenabled distance learning in the conservation of cultural heritage.

# IKONOS Sub-project:

the Cataloguing of the Heritage Artefacts

One of the sub projects in IKONOS is the cataloguing of heritage artefacts, through the creation of a database tailor-made for the artefacts selected for cataloguing according to established criteria. The common cultural heritage cataloguing approach has been drawn up on common guidelines and a harmonised approach for heritage artefact cataloguing and standards for the selection of artefacts to be catalogued. Its objective is also to present a real model for a common

harmonized approach and to test its applicability particularly in relation to the didactic value and risk assessment evaluation and the building of a Website that will make the database easily accessible.

# IKONOS Sub-project:

## Risk Assessment

The risk assessment of artefacts using tele-heritage is in fact a pilot study, through the collaboration and pooling among experts in their respective countries in various disciplines to participate in on-line discussion and decision-taking during the observation and risk assessment of artefacts.

## Map Cataloguing Project

Work has begun on the digitisation and cataloguing of an important collection of maps of Malta. MCR has assembled a team of experts in map history, paper history, printing history, conservators and ICT specialists who are creating a prototype system to establish the essential fields for the catalogue/database and the basic layout. This material will eventually be made available on the Web using an interface which allows it to be browsed and searched.

