Czech Republic

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H. Rousseau (1844-1910)
Self-portrait, 1890
The National Gallery

The Ministry of Culture of the Czech Republic
`http://www.mkcr.cz`
`http://www.mkcr.cz/en/www/index.php)`

Competence of the Ministry

The Ministry of Culture pursuant to Section 8 of Act No.
2/1969 Collection of Laws, on Establishment
of Ministries and Other Central Governmental Agencies
of the Czech Republic, as amended by the subsequent
regulations, is a central governmental agency for:
• art, culturally educational activities, cultural heritage;
• issues in connection with churches and religious
  societies;
• issues in connection with the press, including
  publishing non-periodical press and other
  informational means;
• preparation of bills and legal regulations
  in the sphere of radio and television broadcasting;
• the implementation of the Copyright Act;
• the production and trade in the sphere of culture.

For more information on Cultural Policy in the Czech
Republic see: `http://www.mkcr.cz/en/`
`www/article.php?id=10`

Responsibility for cultural heritage is divided between
three main departments:
• The Arts and Libraries Department;
• The Department of Movable Cultural Heritage,
 Museums and Galleries;
• The State Care of Monuments.

Legislation protecting cultural heritage in the Czech Republic

*Act No. 122/2000 on Protection of Collections of
Museum Nature and Amendment to Certain Other Acts*
`http://www.cz-icom.cz/ceicom/`
`CZ_zakon_1.html`
The new Act, combined with the implementation
arrangements in Decree No. 275/2000 and
methodological instructions issued by the Ministry
of Culture, created fundamental prerequisites
for rational administration, registration and inventory
of museums' and galleries' collections. Among other
measures taken under the new legislation, all the
collection items owned by the state, Regions and
municipalities, and many of those held by other legal
entities and individuals, are recorded in the Central
Register of Collections ("CES"), maintained by the
Ministry of Culture. The CES is a publicly accessible
information system (`http://www.mkcr.cz/ces/`),
which contributes to better awareness about museum
collections and museums as such. The CES also
provides the essential prerequisites for collection
protection after the accession of the Czech Republic
to the EU, as it defines the part of the cultural wealth
(in addition to national cultural monuments, common
cultural monuments and archive documents)
to be excluded from the free movement of goods
in the European Union.

*Act No. 71/1994 on the Sale
and Export of Cultural Objects*
`http://www.cz-icom.cz/ceicom/`
`CZ_zakon_2.html`
It is the most important legal standard for the
protection of cultural objects. It regulates the export
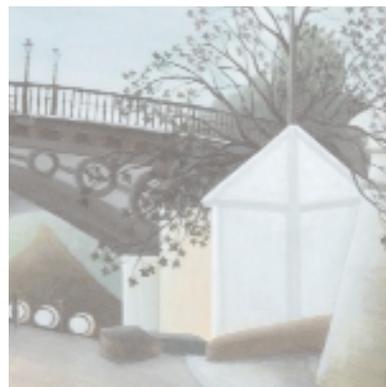
of all types of cultural objects (except listed cultural monuments and listed museum collections) and the sale of cultural objects of religious character or of archaeological origin. It means that any export of cultural objects of any kind (according to market value and period of origin), or the sale of religious or archaeological objects without a certificate issued by the respective institution, appointed by the State (institute of cultural heritage, museum) is illegal.

Act No. 20/1987
Concerning the State Care of Monuments
`http: //www. cz-i com. cz/cei com/`
`CZ_zakon_3. html`
It defines the responsibilities of the owner and of the State in the care for cultural heritage, as well as the system of listing and registration of moveable and immovable monuments. According to the Act the export of listed cultural monuments is prohibited.

Act No. 257/2001 Coll. of 29 June 2001 on Libraries and Terms of Operating Public Library and Information Services (Library Act)
`http: //www. cz-i com. cz/cei com/`
`CZ_zakon_4. html`
It defines and protects library documents (books etc...).

Act. No. 97/1974 on Archives (archive items)
The archival sector fall under the Ministry of Interior.

On 26 March 1993, the Czech Republic lodged a notification of succession by which it stated that it was bound by the Unesco Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property, accepted by Czechoslovakia on 14 February 1977.
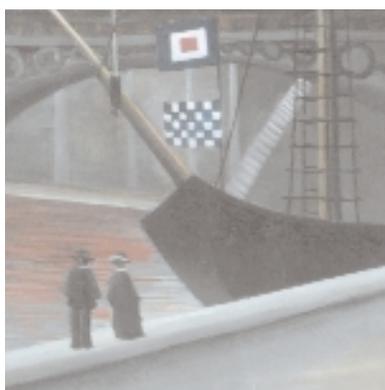
The Arts and Libraries Department

Czech National Digitisation
Programmes in Libraries
Almost thirty important Czech cultural institutions have already taken part in two national digitisation programmes launched by the Ministry of Culture in 2000 and co-ordinated by the National Library of the Czech Republic within the framework of a large initiative called Public Information Services in Libraries. The calls for proposals – launched yearly – offer to applicants the opportunity to cover up to 70% of the digitisation cost of their projects. The only problem is irregular funding, which varies from one year to another; nevertheless, the virtual completion of dispersed collections is becoming reality. In the end of 2003, ca. 550,000 high-quality digitised pages of 1050 manuscripts and ca. 1.2 million pages of periodicals were available. Not only documents from large library collections, but also rare items from regional museums, castle or monastery libraries are being digitised.

The first programme is called Memoria (full name Memoriae Mundi Series Bohemica) and it has the roots in 1992/1993 when the first pilot CD-ROM for the Unesco Memory of the World programme was prepared and published in Prague. The routine digitisation started in 1996 when the digitisation centre was built in the National Library. Since that time the centre substantially expanded also thanks to the long-time co-operation with the AIP Beroun Ltd. Company (`http: //www. ai pberoun. cz/engl i sh/i ndex. asp`) that is considered to be a co-founder of the programme. Under this programme, mostly old manuscripts are digitised, but also rare printed books or historical maps.

The second programme is called Kramerius and it started the routine production in 2000: it concerns digitisation of preservation microfilm. In fact, a rather strong and nationally co-ordinated preservation microfilming programme started in early 1990s to prevent self-destruction of brittle paper materials. The preference was given to microfilming, but later a microfilm digitisation programme started, too. As to acid-paper materials, it is related mostly to old damaged and rare periodicals.

The data from both programmes is stored and made available thanks to funding coming from the third national programme, called Digital Library, and concerning long-term storage of and access to the digital documents produced through digitisation of library materials.

The average annual production today is more than 100,000 pages of manuscripts and ca. 400,000 pages of periodicals. The data format used for storage of images is now exclusively JPEG with compression quality factor up to 12 in Adobe Photoshop; in case of periodicals in 256 shades of grey. Since the routine production started, a lot of attention was paid to the metadata container comprising the whole digitised document. The lack of available good practices at that time led to creation of a proprietary SGML-based standard, called DOBM, in 1996. The format was in fact an enlargement of the HTML DTD with elements enabling to describe contents of objects, a kind of rudimentary solution whose idea is now better expressed by XML. The DOBM files were in fact HTML files containing formatting in parallel with internal mark-up of rich content elements. The format was very flexible and it enabled the needed mark-up on all structural levels of digitised documents incl. pages,

annual volumes, periodical numbers, or even articles. The whole approach was published in 1999 on a CD-ROM and on Internet as a recommended good practice reading under the umbrella of the Unesco Memory of the World programme. Nowadays, new XML-based formats have been written. However, the most interesting fact is that the impulse for transition into XML was not so much availability and universality of this platform as changes in content description rules that took part since 1996, especially as to the apparition of the MASTER DTD for bibliographic description of manuscripts on the definition of which we also took part in the EU MASTER project. New XML Document Type Definitions have been prepared not only for manuscripts, but also for other types of documents. Today, metadata migration into new XML containers has been completed, while several cases for manual corrections have been left aside to be processed now. The migration has taken part in both digitisation programmes. We used the redefinition of the metadata containers also for a large qualitative improvement of metadata structures on all levels of digitised documents, including technical descriptions of digital files (still images), where necessary (manuscripts).The new XML DTDs are available from our digitisation server (`http://digit.nkp.cz`) for manuscripts and old printed books, periodicals, digitised monographs, and also museum objects, while a DTD for audio documents is going to be prepared. The digitised documents are archived on compact discs (Memoria) and in a robotic library on magnetic tapes (Kramerius), while fast access services to all of them are provided in special applications as follows. The manuscripts and similar materials can be accessed through the Memoria database at the URL

`http://www.manuscriptorium.com`
or `http://www.memoria.cz`. The aim of this database is to become a shared catalogue of historical collections; the bibliographic description of received records should be in MASTER format, while from the beginning of 2004 also UNIMARC records are accepted, as a conversion tool between these two formats has been developed. Records in other consistent formats (even very proprietary) can be also converted and uploaded provided they are considered a valuable addition to the database. The interest to upload records into this database is also abroad: the first international contract was signed with the Wroclaw University of Library, Poland, while concrete interests exist also in other Polish institutions, Slovakia, Croatia, and other countries. The University Library of Bratislava (Slovakia) has already become the full member of the Memoria consortium. The Memoria Digital Library database software is based on the reliable Czech National Bibliography Tornado application, developed and maintained by AIP Beroun Ltd. The Tornado has been extended to operate also on MASTER records and to handle the complex metadata structures of the whole digitised documents. Additional tools for work with images have been added, too. The access images are in optimized JPEG in preview, low, and normal quality, and also in 1-bit (black-and-white) GIF format. The normal quality JPEG is carefully watermarked with visible letters MMSB on image background.JPEG 2000 (JP2) was also considered for high-quality access, but due to too visible background structure cleaning at interesting compression ratios its application was discontinued. The free access is possible to all metadata as well as to preview images. Access to larger images is licensed, while all the participating institutions – i.e., those who share their digitised

documents with others in this environment – have been given full access rights for their sites or campuses. For digitised maps, the MrSID technology is going to be implemented in the near future.
The digitised periodicals and in future also other remaining types of documents are being made available in the Kramerius application (`http://kramerius.nkp.cz`) that is being developed and tested nowadays by the Czech Qbizm Corporation. Also here the migration of metadata takes place as well as optimization of images for access. In this case, the access image format is DjVu into which all the images are being converted. The application is expected to be launched for users in the beginning of 2004 with digitised periodicals. All the copyright-free titles (since the 18th century until 1880) will be accessible free of charge, while more recent titles at which the copyright may be still partly applicable will be accessible on site there, where the originals are stored. The copyright law requires that, in this case, also the digital copies should be stored on site.
The two access systems will enable more concentration on digital archival storage that will become physically independent also in Kramerius, where the archival system applied today is the Czech AIP Safe document system, product of AIP Safe Ltd.
Our digitisation programmes have grown on the basis of large research and development activities that continue also today. They concern both metadata and data areas incl. large tests of new emerging solutions. Our long-term goal is to create a virtual research environment based on historical documents. For this, other types of documents and data objects are going to be added as well as TEI processed texts of selected manuscripts.
The Memoria Digital Library was published successfully

Manuscript collection of the National Library
Czech language manuscript XVII.A.6 from the year 1376

in late autumn 2003 and it generated a lot of interest at home as well as in other countries (more than 50% users are accessing it from abroad). The full database marketing in foreign countries is starting only now; the reactions are positive even if several scholars would prefer to have free access to everything without being able to answer the question who will pay the necessary maintenance and optimization work. In fact, interested individuals can get free access through their institutions, which can obtain necessary licenses by purchase or through their own participation in and contribution to the programme.

The Czech digitisation programmes cover all the digitisation-related operations from preparation of documents until storage and access. For better support of several operations, special software tools were developed to make the work easier; these tools are being replaced now by the new ones, which are going to support the new XML metadata containers. Especially the Memoria Digital Library is willing to co-operate with similar initiatives abroad; therefore, the basic principles for data and metadata sharing between systems have just been created. They cover both acquisition of foreign metadata including metadata harvesting based on OAI-PMH and sharing of internal metadata through Z39:50, Open URL, or OAI-PMH. For this purpose an exchange format (OpenM.dtd) has been prepared. The image and other data can remain on partners' servers, because Memoria can operate with remote data storage facilities. In this area also use of storage grid technology is going to be explored in co-operation with the Czech academic research network. We have been taking part also in several international research and development programmes (4th, 5th, and 6th FP and Eureka! platforms) and other initiatives. The National Library is, for example, one of the first non-G7

members of the Bibliotheca Universalis and it continues to co-operate with the Unesco Memory of the World programme (Sub-Committee on Technology). Mostly in co-operation with the Open Society Fund (but not only), our digitisation training courses for librarians have been taught in many countries such as Ukraine, Moldova, Kazakhstan, and Mongolia, while courses in Serbia and Lithuania will be organized in 2004.

There are also strong relations of co-operation and exchange of information with institutions from many Central and Eastern European countries, which are joining the European Union, especially from Lithuania and Slovenia, while both largest Slovak libraries use our standards. The co-operation goes not only across national borders, but also across related disciplines, including computational linguistics. The up-to-date information about our digitisation activities, incl. important links and standards, is available from the http://digit.nkp.cz server in English and Czech languages.

The Department of Movable Cultural Heritage, Museums and Galleries

Since 1989, the care of movable cultural heritage, as carried out by museums (the catalogue of Czech museums: www.cz-museums.cz/uk/adresar/index.asp; www.knihovna.upm.cz/text16.htm), has passed a 13-year period of continuing changes, which – at least the most important ones – were completed during the year 2003. This challenging period will be followed by another complicated period: all the changes and new legal regulations will have to be fully implemented in everyday practice, thus assuming the responsibility for the pre-eminent cultural riches towards the citizens of the Czech Republic and towards Europe and the world.

Harley-Davidson model J 1928
The National Technical Museum

In this situation, the Ministry of Culture considered it extraordinarily important to define the state's basic tasks which, when carried out, will ensure that the above-mentioned responsibility is accomplished and that stable conditions are created in 2003-2008 for the care of Czech movable cultural heritage, maintained in Czech museums and galleries. For this reason the Ministry of Culture prepared Concept of a More Effective Care for Movable Cultural Heritage in the Czech Republic in 2003-2008
http://www.mkcr.cz/en/www/article.php?id=482
The Concept deals with future strategic objectives, which are as follows: more effective preventive protection of museum collections, primarily against the impact of disasters such as floods; the strengthening of legal assurance of collection owners; the development of acquisition activities; solving the problem of lack of space in museums; involving museums in educational processes and information networks; promoting the image of the Czech Republic abroad through exhibition projects, and supporting the presentation of recent history and last but not least improving the quality and availability of information for the professional and general public, primarily through the application of information technologies and digitalisation of movable cultural heritage. The Ministry of Culture has an ambition to:

- support the development of a multilingual and publicly accessible catalogue of collection items as the largest part of the movable cultural heritage. The catalogue is to be based on text and audiovisual information on collections, collection sets and individual items;
- create a shared database for the description of the collection items, movable monuments and library documents from the historical funds of libraries for the catalogue;

- make the catalogue public on the Internet and update it on a continuous basis.

The base of the intended catalogue is the Central Register of Collections ("CES"), maintained by the Ministry of Culture. The CES is a publicly accessible information system (http://www.mkcr.cz/ces/), which contributes to better awareness about museum collections and museums as such. All the collections items owned by the state, Regions and municipalities, and many of those held by other legal entities and individuals are recorded there.

Documentation of Collections – ISO project

The documentation of collections improved significantly during the 1990s. This is due to the introduction of the already described ISO project (Integrated Movable Cultural Heritage Protection System), which is specifically focused on the description of endangered cultural objects and under which thousands of collection items, movable cultural heritage items and objects of cultural value have already been documented. In addition, computerisation has brought about a continuous improvement of the quality of the on-going documentation (digitisation) of all collection items in museums. Contemporary programme Integrated System of Movable Cultural Heritage Protection, funded from the state budget, is subdivided into four sub-programmes within the authority of the Ministry of Culture:

a) equipment of the museums and historic monuments (castles and churches) with alarm systems and mechanical barriers);
b) uniform system of recording and documentation of cultural objects (this applies currently in particular to ecclesiastic objects);

c) rescue purchases of cultural treasures and object of cultural value into property of state and regional museums and galleries (museum of arts) and another state collections;

d) protection against the ravages of certain climatic conditions or environment in general (equipment museum storages and permanent exhibitions, equipment museum conservation and restoration laboratories etc.).

Graph n. 1 documents the criminal activities (burglaries and their investigation) affecting cultural heritage in 1988-2001.
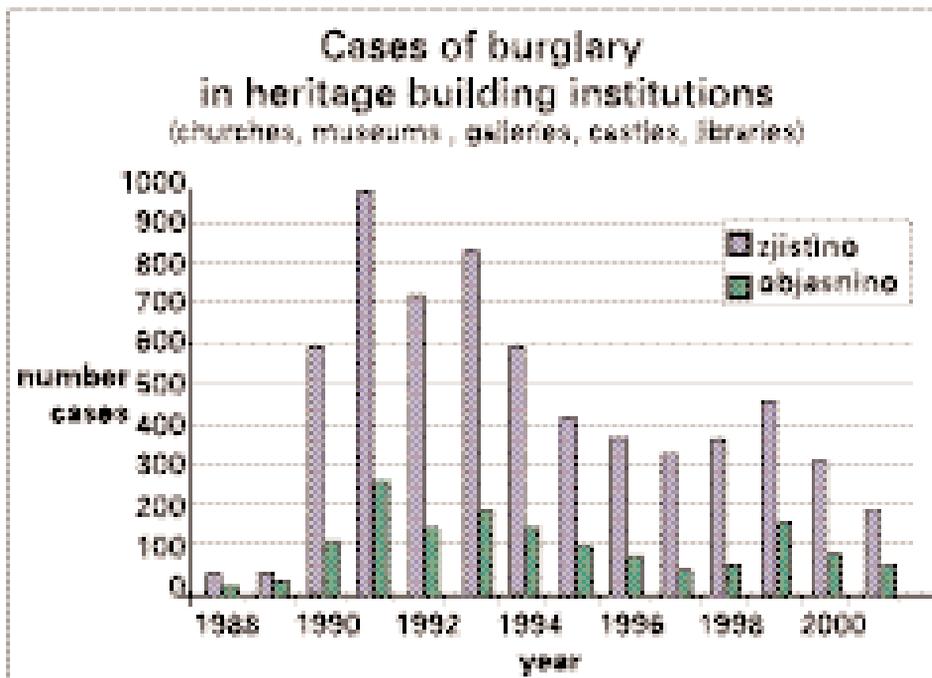
zjisteno   = cases reported
objasneno = cases cleared up
Source: Police Presidium of the Czech Republic

The Demus programme

The modern database system, the Demus programme
(`http://www.mzm.cz/mzm/demus.htm`),
is developed by the Departement of informatics
at the Moravian museum in Brno entrusted with this
task by the Association of Czech Museums (AMG), with
a financial support from the Czech Ministry of Culture
and in correspondence with the recommendations
of CIDOC ICOM. The data structure is in full coincidence
with the international standard Object ID. The quality
of analysis is guaranted by branch committees of AMG.
Since 1992 the Computer Department of the Moravian
Museum has been a pilot workplace of the ISO project
(Integrated System of Protection) which is a joint
project of the Ministry of Culture and the Czech Police.
The Police use the designation SEUD (System
of Records on Art Works -`http://www.mvcr.cz/
vozidla/ieud2/ieud_1.ASP`). Its principle is the
database of collection items having unified structure.
In museums, galleries and listed monuments
the database includes only items threatened by theft
(valuable, asked for on the market, badly protected).
In police database there are only items looked
for and withheld by the police. Basic text data are
complemented either with a link to an analogue record
(videocassette of photograph) or with a digitised
picture of each item. The system is not suitable
for professional work with collections.
The Department of informatics has been dealing with
the creation of database systems of the professional
documentation of collections since 1986. Step by step,
the systems AISM (Automated Information Museum
System) and Demus (Documentation and Record
of Museum Collections) have been developed
and proposed to all museums in the Czech Republic

(previously CSSR, CSFR). Both systems use primarily
text databases, Demus enables to equip the record
with an unlimited number of visual, acoustic,
multimedia and other documents.
Data from Demus can be transferred directly into
the above-mentioned ISO system.

J. Zrzavý (1890-1977)
Kleopatra 1942-1957
The National Gallery Kleopatra