Cultural H eritage Information System in the Republic of Slovenia

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1. Protection of cultural heritage in Slovenia - general situation [1]

In the Republic of Slovenia the protection of cultural heritage is regulated by the Cultural Heritage Protection Act from 1999.

The Cultural Heritage Protection Act defines cultural heritage and monuments as follows:

- Cultural heritage is defined on the basis of registering in the Cultural Heritage Register and protected mainly through planning procedures.

- Monuments are granted their legal status on the basis of a proclamation act which could be issued by the Government of the Republic of Slovenia for the monuments of national importance or the responsible body of the local community for a monument of local importance.

Major institutions related to the protection of cultural heritage in Slovenia are:

- The *Ministry of Culture* is governmental body which has overall responsibility for the protection of cultural heritage in Slovenia. It is responsible for definition of heritage policy, financial planning of state budget regarding conservation activities and the co-ordination with other ministries. Within the Ministry, there are three bodies: the Cultural Heritage Office, the Archive of the Republic of Slovenia and the Cultural Heritage Inspection.

- The *Cultural Heritage Office* carries out administrative procedures and corresponding technical tasks in the protection of architectural, archaeological and movable cultural heritage, such as: keeping the Central Register of Cultural Heritage and respective documentation, supervising national projects, managing and monitoring co-financing of the conservation works on monuments and sites, awareness raising in the field of cultural heritage, implementing international co-operation in the field of cultural heritage.

- The *Public Institute for Cultural Heritage Protection* was established in 1999 by the Government and operates under the auspices of the Ministry of Culture. It is responsible for the technical work in the field of cultural heritage conservation. It also takes part in the administrative procedures for building and alteration permits on monuments and sites (especially on the first level of administration) by issuing consents. It has a central administration, other centralised departments (i.e. Restoration Centre) and seven regional offices (the former regional institutes for the protection of heritage; see picture 2). The seven regional offices perform technical tasks in the field of cultural heritage: recording, evaluating and documenting cultural heritage, preparing conservation programmes and projects for the conservation of monuments and sites, supervising the conservation works on monuments and cultural heritage, implementing rescue archaeological research and provision of technical advice to owners of cultural heritage. These tasks are considered to be the public service.

- The *network of museums* (national, regional, town, municipal) provide public services in the area of the protection and presentation of movable cultural heritage.

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[1] The text is derived from the text prepared for the Information on National Policies within the Council of Europe's HEREIN project (prepared by Jelka Pirkovič); http://www.european-heritage.net

The following paper will focus on registration and documentation of immovable cultural heritage in Slovenia. The movable heritage is not covered.

Cultural Heritage Office and Public Institute for Cultural Heritage Protection are working in co-operation for the tasks related to registration and documentation of immovable cultural heritage. At the moment the major task in this field is to finish the process of heritage registration within the Cultural Heritage Information System which is described more in detail in this paper.

2. Cultural Heritage Information System

Cultural Heritage Office of Slovenia started with the development of the Cultural Heritage Information System (CHIS) with the aim to improve the administrative procedures of filing, documentation, popularisation, management, and the protection of cultural heritage.
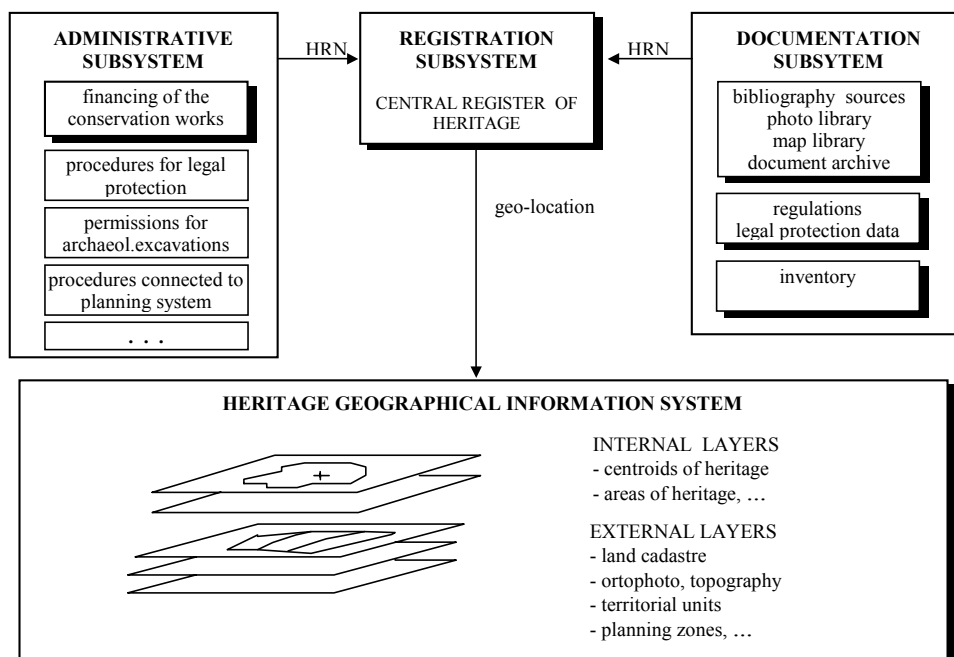
The project started in 1991. Designing the system we had to consider that in the past the filing of data on cultural heritage was manual rather than computerised and diverse in its structure, content, and scope. The computer equipment available was very modest, and the financing for the development of the system was relatively limited.

The development of the CHIS included several phases:

- the design of the system: the concept and design of databases, formalisation and standardisation of data;

- the development of legal support;

- the development of the software;

- the preparation of the experimental version of the database which was completed in 1996.

2.1 The structure of the CHIS

CHIS has modular structure and was designed as a set of separate modules which all refer to unique Heritage Reference Numbers (HRN). The modular structure of the system enables easier maintenance and flexibility of adding new modules and connections to other systems as well as step by step development of the subsystems of the CHIS. Picture 1 shows the modules (subsystems) of the CHIS.

Author: F.J.Z., K.K.N.

PICTURE 1: The structure of the Cultural Heritage Information System

2.2 Legal and international background

To provide legal support to the CRH the Regulations for the Managing of Central Register of Cultural and Natural Heritage (Official Gazette of the RS 26/95) was prepared. The Regulation

- defines unified registration form and procedures for updating the data (types of documents, electronic exchange of data) and

- introduces obligatory referencing to the Heritage Reference Number for all administrative bodies and conservation services when dealing with heritage unit.

The system is in compliance with the Core Data Index recommendations adopted by the Council of Europe in 1992 (architectural heritage) and 1998 (archaeological heritage). The Core Data Index defines the basic data structure for the description of historic buildings / monuments and archaeological sites in order to facilitate the exchange of the data among countries and institutions.
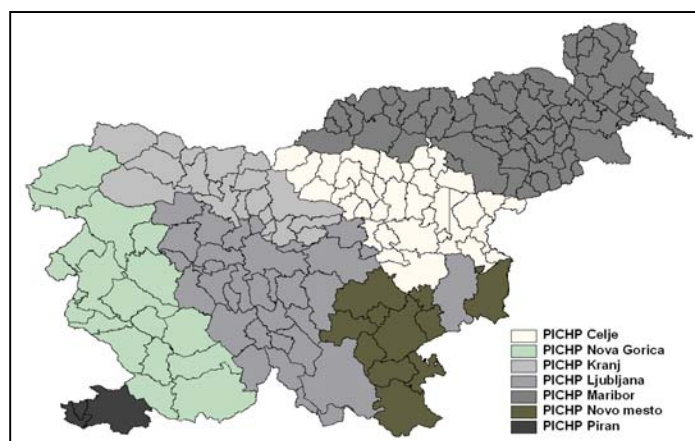
3. Central Register of Cultural Heritage

Central Register of Cultural Heritage (CRH) is the core database of the CHIS. CRH is official database on cultural heritage in the geographical area of Slovenia. In the CRH we register all units of cultural heritage regardless of their type, size, ownership, or whether they are legally protected or not.

The CRH maintains the basic data for each cultural heritage unit and assigns them unique Heritage Reference Number (HRN). The purpose of assigning the HRN is to create a unified identification system for cultural heritage. At the same time HRN serves as a connection element to documentation, to other information subsystems and to professional and administrative procedures related to the protection of cultural heritage.

3.1 Updating of the CRH

Cultural Heritage Office of Slovenia is managing the CRH in co-operation with regional offices of the Public Institute for Cultural Heritage Protection (PICHP). Proposals for registration are sent by computer forms to the Cultural Heritage Office which then checks the data and officially registers the heritage units into the CRH. The official forms are then sent back to the regional offices. In this way the created data base is unified and made accessible to both, the Cultural Heritage Office and the regional offices.

PICTURE 2: Regional Offices of the Public Institute for Cultural Heritage Protection

3.2 CRH registration form

Republic of Slovenia, Ministry of Culture
FormNo.CRH.2
Cultural Heritage Office of the Republic of Slovenia
CENTRAL REGISTER OF HERITAGE
Plečnikov trg 2, Ljubljana

No. of proposal: _____
Date: _____

According to the provisions of Article 7 of the Regulations for the Managing of Central Register of Cultural and Natural Heritage (UL RS, no. 26/95) the proposer submits the following

PROPOSAL FOR REGISTRATION

I. PROPOSER
  Name and address:
  _____
  _____
  Proposer type: /__/ _____

II. PROPOSAL TYPE: /__/ _____

III. DESCRIPTION OF CULTURAL HERITAGE UNIT

1. Identification
  Reference number: #_____
  Name of unit:
  _____
  Synonims for the name:
  _____

2. Description
  Heritage code: /__/ _____
  Unit type code: /__/ _____
  Unit size code: /__/ _____
  Typological descriptors:
  _____
  Textual description:
  _____
  _____
  _____

3. Location
  Settlement reference: /__/ _____
  Gauss-Krueger co-ordinates of centroid of unit
   Y: _____   X: _____   Z: _____ m
  Distance to the settlement: _____ m
  Approximate land area: _____ h

Map references:
1:5000:   /__/ _____
1:25000: /__/ _____
Textual description of location:
_____
_____

4. Relations with other units
  Reference to related unit: /_____ /
  _____

5. Responsibility
  Conservation topics:
  _____
  Regional office responsible for conservation: /__/ _____

6. Legal protection status
  Status type: /__/ _____
  From day: _____   To day: _____
  Act on legal protection:
  _____

7. Remarks
  Reason for registration/change/de-registration: /__/ _____
  Accuracy of centroid: /__/ _____
  Additional remarks:
  _____
  _____

IV. EXPLANATION OF PROPOSAL
  _____
  _____

V. ENCLOSURES
  _____
  _____

VI. MODE OF DELIVERY
  This proposal IS / IS NOT delivered to the Cultural Heritage Office of the Republic of Slovenia by computer form.

VII. SIGNATURE
  The proposer guarantees the verification of data. If the proposer is regional office for the protection of heritage it guarantees also the quality of data.

  Conservator in charge: Seal:
  _____
  Prepared by: Proposer:
  _____   _____

3.3 Data capture and present situation of the CRH database

Data capture for CRH started in 1993. We implemented the experimental version of the CRH database by June 1996. Some of the existing data sources (databases on heritage of special importance, legally protected monuments, all churches) had been converted to the CRH data base. At the same time the guidelines for data entry were prepared and some training workshops for regional offices were organised.
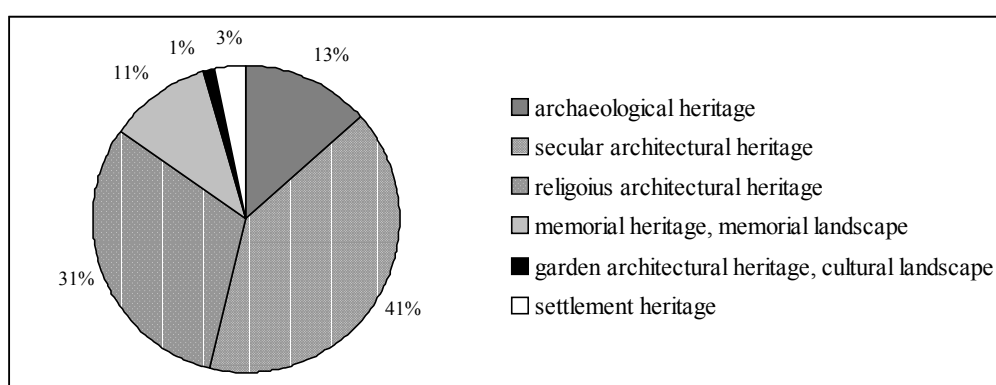
Since then we have extensively registered the units of the cultural heritage into the CRH on the basis of proposals made by regional offices. The priority was given to the units which are already legally protected by the municipal or state proclamation acts.

During the process of registration we are improving the guidelines for the data entry and developing the terminology of object types.

Table 1 and Picture 3 show some data on the present situation of the CRH.

TABLE 1: The number of heritage units in the CRH in August 2001.

	legally protected heritage	other heritage	all heritage units
registered units	6076	2819	8895
units under the procedure of registering	989	1564	2553
units expected to be registered	500	2386	2886
all heritage units	7565	6769	14334

PICTURE 3: Different types of heritage in the CRH.

4. Documentation Subsystem

The Documentation subsystem enables the management of legal data and documentation data about each unit of cultural heritage.

Legal data is data about legal procedures regarding listed monuments, cultural heritage sites declared to have a public function, state ownership of the monuments, and regulation data.

Documentation data about cultural heritage units includes photo-documentation, architectural plans and measurements for each building, archive documentation and a bibliography of data sources for each heritage unit.

The Documentation subsystem is currently operating only in the Information and Documentation Department (INDOC Center) at the Cultural Heritage Office. The source of documentation data are the documentation data base and library of the INDOC Center which consists of documentation materials on the protection of cultural heritage, created in the territory of Slovenia, since the end of 19th century, to date (see table 2).

At the moment the renewal of information support to the Documentation Subsystem is being carried out. Within this renewal new software for the bibliographic sources module and photo-documentation module have already developed. The new software enables the inclusion of multimedia data (scanned photographs, full text documents, …) into the database. After testing phase at the Cultural Heritage Office it will be also used by regional offices of the Public Institute for Cultural Heritage Protection. This would help to establish the unified system of heritage documentation as for the moment the procedures and methods of

documentation of cultural heritage are not adequately co-ordinated and vary from regional office to regional office.

TABLE 2: Data sources maintained by the INDOC Center.

type of data / materials	scope of data / materials	already in computer form
formal / legal data	- 8422 data regarding legally protected monuments - 433 data regarding other legal regulations - 1220 regulations	100%
photo library	- 93000 negatives; 64000 prints - 12350 slides	40 % 100 %
map library	8550 sheets of plans	100 %
document archive	20000 documents	testing phase, 5 %
bibliographic sources	- 500 research papers - 7000 monographs - 240 current periodicals (132 foreign, 108 domestic) - 8450 volumes of old periodicals	testing phase

5. Administrative Subsystem

The Administrative Subsystem should give support to different administrative procedures in the field of heritage protection, such as:

- budget financing of the cultural heritage;

- procedures for legal protection;

- issuing of permits for archaeological excavations;

- issuing of permits for importing / exporting of objects of cultural heritage;

- procedures for the heritage protection within spatial and physical planning system, etc.

The Administrative Subsystem has not been fully developed, only modules for managing co-financing of the conservation works on monuments and sites and issuing the permits for importing / exporting of objects of cultural heritage have been developed and used.

For the next year a development of a module for the support to the procedures of legal protection is planned within the CRH system.

6. Heritage Geographical Information System

The Heritage Geographical Information System (HGIS) was designed as a subsystem which gives us a view on heritage data in the geographical space. It consists of real links to multimedia data objects:

- data bases developed in the cultural heritage field (internal layers),

- national multipurpose data bases which are developed outside the cultural heritage field but needed in the process of filing, documenting, interpreting, and protecting of cultural heritage (external layers).

The basic scale of the HGIS is 1:5000 or 1:10000, if the former does not exist.
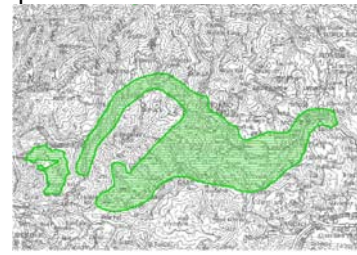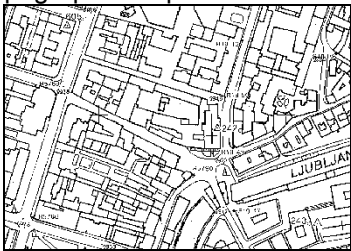
centroids of heritage	areas of heritage	areas of heritage of special importance
11277 centroids	8629 areas	62 areas

PICTURE 4: HGIS internal layers (August 2001)

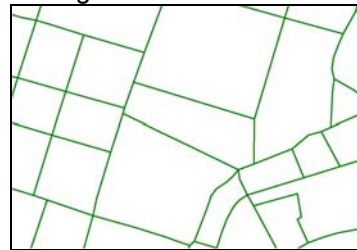| topographic map 1:5000	topographic map 1:500	ortophoto
house addresses	land cadastre	planning zones

PICTURE 5: HGIS external layers

The prototype of the HGIS was designed in 1995. Since 1997 it has been regularly operating at the Cultural Heritage Office of Slovenia while regional offices started to use it in 1999 / 2000.

Despite the high costs for GIS technology and acquisition of geo-referenced data many benefits of using HGIS could be found, such as:

- systematic overview of cultural heritage;

- analysis of heritage in the geographical space;

- interpretation of heritage data in wider environmental context (spatial relationships among heritage objects, relationships to natural environment, relationships to land-use, etc);

- decision support to the conservation procedures (heritage impact assessment, …), etc.

- easy access to the data in other subsystems;

- faster distribution of the cultural heritage data to other uers (planning, popularisation, tourism, ...).

7. Future development of the CHIS

Based on experience obtained through the implementation we have started the re-engineering process of the CHIS which will mainly include:

- adjustment to the new legislation for the protection of cultural heritage;

- introduction and use of more up-to-date information technology (multimedia; client / server; internet / intranet);

- development of on-line data base on cultural heritage (internet accessible);

- development of the Administrative Subsystem;

- implementation of the Documentation Subsystem on regional level.

One of the main tasks for the next few years will remain to complete the heritage registration procedure and thus to create complete and accurate database on cultural heritage in the Republic of Slovenia.

1. IDENTIFICATION
Reference number: **# 1589**
Name of unit: **Ljubljana - Church of the Holy Virgin**
Synonyms for the name: **Church of Theutonic Knights, Deutschordenskirche**

2. DESCRIPTION
Heritage code: **/1/ Immovable cultural heritage**
Unit type code: **/3/ Religious architectural heritage**
Unit size code: **/3/ Building**
Typological descriptors: **church**
Description:
Baroque church was built 1712 - 1715 from the plans of Domenico Martinelli and Domenico Rossi. Built in co-operation between Domenico Rossi and Gregor Maček. It stands on the site of a former gothic church. Altar pictures by Anton Schoonjans and Martin Altomonte.

Data sources:
- Ministry of Culture, Cultural Heritage Office (Central Register of Cultural Heritage; photo: France Messesnel, 1944; plan: Nataša Šumi, 1968)
- Ministry of Environment, Surveying and Mapping Authority (topographic map)

PICTURE 7: CHIS multimedia output

8. References

[1]   *CORE Data Standard for Archaeological Monuments and Sites*. Document submitted for Adoption. Council of Europe, CC-PAT (98) 23, February 1998.

[2]   *CULTURAL Heritage Information System* (pamphlet). Ljubljana : Cultural Heritage Office of Slovenia, January 1999.

[3]   *GIUDELINES for the registration procedure to the Central Register of Cultural Heritage..* Ljubljana : Cultural Heritage Office of Slovenia, May 1996. (Slovenian language)

[4]   KOVAČEC NAGLIČ, Ksenija: *Central Register of Cultural Heritage*. Conference on Informatics in Governmental Institutions, Portorož, September 1996. (Slovenian language)

[5]   *RECOMMENDATION No. R(95)3 of the Committee of Ministers to Member States on Co-ordinating Documentation Methods and Systems Related to Historic Buildings and monuments of the Architectural Heritage.* Adopted by the Committee of Ministers on 11 January 1995 at the 525th meeting of the Ministers' Deputies.

[6]   ZAKRAJŠEK, Franc J.,   KOVAČEC NAGLIČ, Ksenija: *GIS Model of Cultural Heritage : The Case of the Republic of Slovenia*. Third Joint Conference & Exhibition on Geographical Information, Vienna, Austria, 1997.

[7]   ZAKRAJŠEK, Franc J.: *Initial Points for Development of the Information System of Natural and Cultural Heritage in the Republic of Slovenia*. Urbani izziv (Urban Challenge), 1991, no.18, p.73-75. (Slovenian language)

[8]   ZAKRAJŠEK, Franc J.: *The Comparison: CRH of Cultural Heritage and Core Data Index*. Ljubljana : Cultural Heritage Office of Slovenia, February 1995. (Slovenian language)