

Towards an Aggregator of Heterogeneous Cultural Artefacts

Emil Hadjikolev¹, Georgi Vragov², Georgi Totkov¹, Krassimira Ivanova²

1 - Plovdiv University "Paisii Hilendarski", Plovdiv, Bulgaria

2 - Institute of Mathematics and Informatics – BAS, Sofia, Bulgaria



Richness of Culture

The geographical disposition, relief and climate of Bulgarian lands, especially the Upper Thracian valley, makes it attractive living place since many years

- Cultural layers:

- Chalcolitic
- Thracian
- Ancient Greek
- Roman
- Medieval
- Bulgarian Revival
- XIX-th Century Town Culture
- Current years

- Kinds of artefacts:

- Immovable sites (Archaeological sites, Monasteries, Churches, Buildings, ...)
- Movable objects
 - Books, Manuscripts (Libraries)
 - Treasures, Craft masterpieces, custom representations (Museums, Houses)
 - Fine Arts, Sculptures (Galleries)



Digi-culture

- The new technologies allows creating the "digitized images" of cultural artefacts and inoming them into our cultural space through the Web.
- The creation of a common space for presenting different epochs and different types of cultural marks gives the opportunity to receive complex notion.
- The concrete task: to create an environment for the maintenance of various collections through the aggregator:
 - to establish a good common environment for representing the regional cultural richness of Thracian region
 - to integrate into the Europeana



Bulgarian Keepers of Cultural Heritage

Survey [Somova et al, 2010]:

- the libraries are in more advanced stadium in the process of digitization of cultural heritage and achieving some interoperability with common standards
 - (MARC-standard;
virtual catalogues of bibliographic descriptions;
RNL "Ivan Vazov" has digitized old-printed and unique editions book collections;
six libraries of the state universities in Plovdiv are in common Virtual Union Catalogue)
- museums and galleries are at various stages of development
 - (do not follow European standards;
not supported by relevant system;
the process of digitization of cultural artefacts is still at very beginning)
- immovable sites are still not presented in a proper form

Plovdiv Regional Aggregator of Cultural Heritage "plovdiv-eu.com"

The goals of creating **plovdiv-eu.com**:

- to keep the specificity of each collection in order to assure most colourful representation of each object in its natural environment
- to build a common frame, which allows different kinds of objects that have some semantic connections in different levels to correlate easily

(good example DHO:Discovery <http://discovery.dho.ie>)



Administration, Data management, Access

The functional structure of the aggregator follows the framework suggested in the Open Archival Information System (OAIS)

- **Facile administration of ingest** – the different institutions as well as the ordinary users to be able to input information concerning the museum objects;
- **Multi-lingual** – the objects can be introduced in one or more languages. Localized files with basic terms and a localized data base is used for the realization of this mechanism;
- **Collections of objects** – possibilities for data modelling of the objects are realized – very natural for GLAM institutions;
- **Multi-users** – consumers with different roles are organized in a hierarchy that defines rules for access to services;
- **Convenient access functions** – browsing and different kinds of searching (with the help of controlled vocabularies).

КАТАЛОГ НА КУЛТУРНО-ИСТОРИЧЕСКИ ОБЕКТИ

Агрегатор на колекции

[Български](#) / [English](#)

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- [Средновековни крепости](#)
- [Археологически находки](#)
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- [Къщи-музеи](#)
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- [Занаяти](#)
- [Галерии](#)
- [Изложби](#)
- [Празници и обичаи](#)

Начало

Този сайт е разработен по проект Д002-308 към НФНИ "Автоматизирано генериране на метаданни за спецификации и стандарти на е-документи".

Молим всички заинтересувани културни институции, които желаят да въведат информация за културно-исторически обекти, да се свържат с нас чрез формата за контакти!

Общ брой обекти в агрегатора: **4484**.

Най-новите обекти



Теракота



Детайл от археологическата експозиция в РИМ – Ямбол



Антропоморфна фигура с украса



Глинен антропоморфен съд



Бронзова статуетка на бог Хермес



Каменна скулптура на лъв



Съд-дозатор – сграфито керамика



Нож-кинжал



Стъклен балсамарий



Мраморна статуя на орел



Оброчна плочка на Тракийски конник (конник4)



Мраморен бюст с посвещение на Аполон



Ажурна оброчна плочка на Тракийски конник



Глинен съд (чаша)



Бронзова автономна монета на Кабиле тип „В“ (монета4)

Example of successful migration: Plovdiv Regional Ethnographic Museum

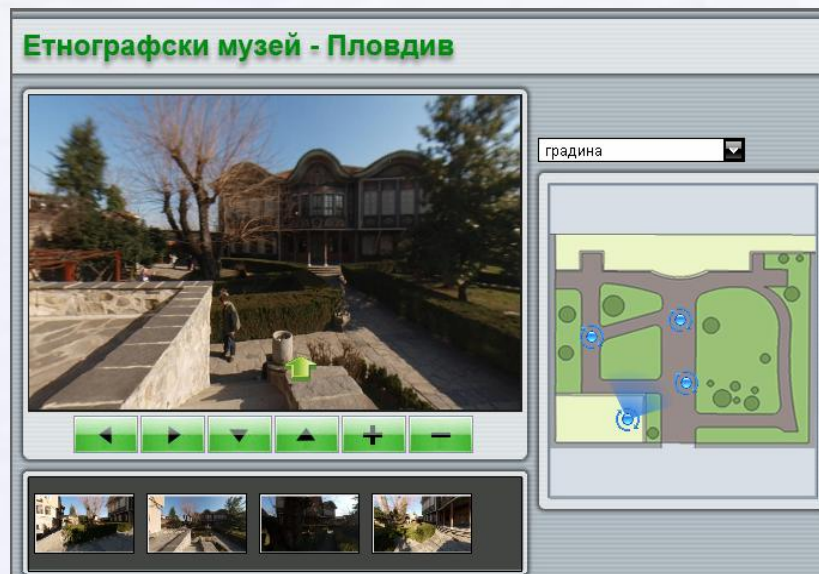
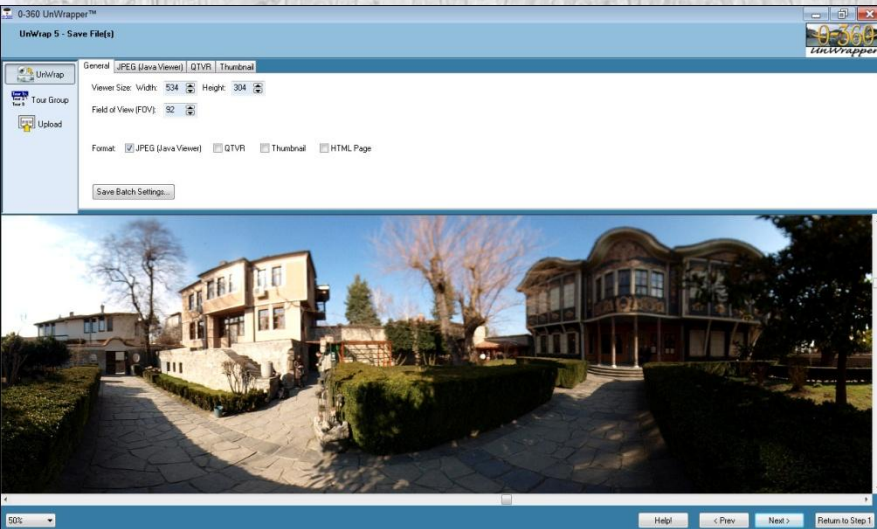
Museum passport of object 4501

Museum passport fields	Values
Section	Crafts
Collection	Wrought Iron
Name	Candlestick, wall, Double-arm
Folk name	
Inventory number	4501
Dating	2005
Number of exemplars	1
Material	Wrought iron
Sizes	H=78cm; W=38cm
Weight	
Carats	
The object is one with inv.numbers	
Producing place	Plovdiv
Keeping place	Craft Fund of REM-Plovdiv
Author of the original	Georgi Manolov
Technique	Craft mastering
Technology	
History of the object	
The object is from the group of	Professional
Condition	Very good
Conservation and restorations	
Object description	Candlestick, wrought iron, wall, double-arm; examination work of Georgi Manolov to obtain a master title from the Assoc. of Masters of Folk Crafts
Literature, used for object description	
Surrogates	no
Object moving	
Remarks	
Passport maker	Sonya Semerdjieva
Appointment	Chief organizer

Used Europeana metadata in the aggregator

Strongly recommended		Additional		Europeana	
dc:title	Y	dc:format	A	europeana:country	A
dcterms:alternative	Y	dcterms:extent	Y	europeana:hasObject	A
dc:creator	Y	dcterms:medium	Y	europeana:isShownAt	A
dc:contributor	Y	dc:identifier	Y	europeana:isShownBy	A
dc:date	Y	dc:rights	A	europeana:language	A
dcterms:created	Y	dcterms:provenance	Y	europeana:object	A
dcterms:issued	A	dc:relation	Y	europeana:provider	A
Recommended		dcterms:conformsTo	A	europeana:type	A
dc:coverage	Y	dcterms:hasFormat	A	europeana:unstored	Y
dcterms:spatial	Y	dcterms:isFormatOf	N	europeana:uri	A
dcterms:temporal	N	dcterms:hasVersion	N	europeana:usertag	A
dc:description	Y	dcterms:isVersionOf	N	europeana:year	A
dcterms:isPartOf	Y	dcterms:hasPart	Y		
dc:language	A	dcterms:isReferencedBy	N		
dc:publisher	Y	dcterms:references	N		
dc:source	Y	dcterms:isReplacedBy	N		
dc:subject	Y	dcterms:replaces	N		
dc:type	Y	dcterms:isRequiredBy	N		
		dcterms:requires	N		
		dcterms:tableOfContents	Y		

3D and VR Representations





Data mining support

- Inventing an initial **general categorization**
- **Concretization** within sub-domains
- Through various heuristic algorithms applied to the text describing the objects can be defined the new common categories in order to make the meta-connections between personal categories:
 - Using **InDES** (data extraction by learning restricted finite state automata) [Blagoev et al, 2009]
 - Applying associative rule miner **ArmSquare** [Mitov et al, 2011] for searching of stable connections between concepts in order to facilitate creating of the ontology



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Thank you for the attention!

Krassimira Ivanova

kivanova@math.bas.bg



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