# Information Day "Research Infrastructure Services in the Humanities and Social Sciences"

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Research results of the Institute of Mathematics and Informatics, Bulgarian Academy of Sciences within

CLaDA-BG, the Bulgarian National Interdisciplinary Research e-Infrastructure for Resources and Technologies in favor of the Bulgarian Language and Cultural Heritage, part of the EU infrastructures CLARIN and DARIAH (2018-2027)



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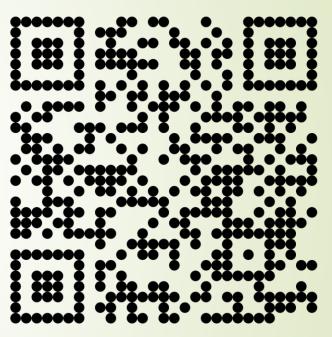
## CultIS – web-based platform for intelligent cultural content management

Interactive virtual presentation of objects and collections.

Flexible
management and
structuring of
metadata, data,
objects.

Standard and complex search and grouping in various intersections.

Multilayer indexing of data using dictionaries, etc.



https://cultis.math.bas.bg

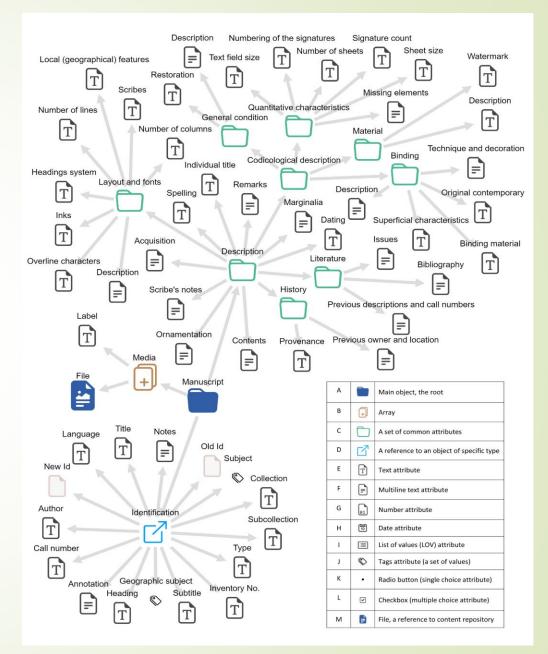
**■CultIS** is humanities and social sciences data storage, retrieval and curation environment created by rich set of OA technologies aiming to support a great variety of digital cultural units.

#### 4 CultIS metadata structures

- Metadata structures in CultIS are managed using a dynamic models building service.
- It provides the ability to maintain complex structures (including arrays and recursive relations), and to extend them anytime.

#### Special functionalities

- Advanced querying
- API based JSON interface for communication
- Fast performing and scalable data management engine







#### Technology

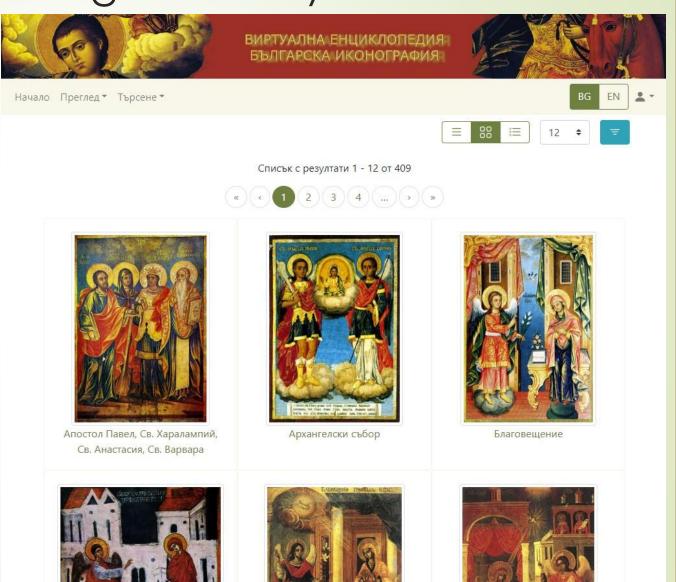
■CultIS incorporates some of the most current and advanced software technologies, giving a wide range of functionalities for content manipulation, descriptive cataloging, indexing, intelligent data searching, curation, and collection development, aiming to meet the functional needs of different users.

### Bulgarian Iconographical Digital Library - BIDL

In 2021, IMI-BAS launched a new online digital library (Bulgarian Iconographical Digital Library), based on the CultIS web-based software platform for intelligent digital management and presentation of large datasets and knowledge in the fields of culture, humanities and social sciences.

Bulgarian Iconographical Digital Library is a web-based digital library, containing hundreds of digital Bulgarian iconographical artifacts from different authors, periods, iconographical schools, geographical locations, museums, churches, monasteries, etc.

https://bidl.math.bas.bg/.



### Bulgarian Iconographical Digital Library - BIDL



#### About project

The Digital Library "Virtual Encyclopedia of Bulgarian Iconography" was initially created within the project "Digital Libraries with Multimedia Content and Applications in Bulgarian Cultural Heritage", whose aim is to lay the foundations for the registration, documentation and virtual presentation of a potentially unlimited number of Bulgarian icons and iconographic objects.

The current version has been developed as an infrastructure component of CLaDA-BG, the Bulgarian National Interdisciplinary Research e-Infrastructure for Resources and Technologies in Favor of the Bulgarian Language and Cultural Heritage, Part of the EU Infrastructures CLARIN and DARIAH, whose mission is to create a national technological infrastructure for language, cultural and historical heritage resources and technologies.

The library contains several hundred specimens of Bulgarian icons from different artists, historical periods, and schools. It provides and manages complex services (heterogeneous, autonomous and distributed), processes and information workflows. The flexibility, the automatic adaptation, the universal access anywhere and anytime, the decentralization, the wide variety of digital objects and collections, the information security, etc. are some of the requirements considered in the library implementation.

The information content is extracted from the following sources:

Svetlin Bosilkov, "Arbanasi", "Svyat", Sofia, 1989;

Michael Enev, "Bansko - the spiritual centre down the ages"

Luben Prashkov "Bulgarian icons – progress, technology, restoration", "Septemvri", Sofia, 1985

Tsanko Petrov, "Icons from Tryavna painters", "Septemvri", Sofia, 1978

Teofana Matakieva-Lilkova, "The East Christian art in Bulgaria", "Borina", Sofia, 2001

Teofana Matakieva-Lilkova, "Bulgarian icon", "Balkan Press", Sofia, 1994

"Encyclopedia of the fine art in Bulgaria", "BAS", Sofia, 1980

The digital library is developed by a team of researchers from the Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, the Burgas Free University and the Laboratory of Telematics, Bulgarian Academy of Science – Prof. Desislava Paneva-Marinova, PhD, Prof. Radoslav Pavlov, PhD, Assist. Prof. Maxim Goynov, PhD, Assoc. Prof. Detelin Luchev, PhD, Lubomir Zlatkov, Assist. Prof. Lilia Pavlova, PhD, Assoc. Prof. Yanislav Zhelev, PhD, Assoc. Prof. Mariya Monova-Zheleva, PhD, etc.

#### **BIDL Games**

#### Panoramas:

Church of the Nativity

eter Paul Ivan Rilsk

Church of Ss. Archangels Michael and Gabriel

Church of St. George in Veliko Tarnovo

Holy Forty Martyr's church and the Great Laurel Monastic Complex

#### BOOK@HAND







#### St. Archangel Michael

Type: Ico

I Author: Yoanikiy (Yonko) Papa Vitanov

I Iconographical school: Tryavna Iconographic School

Period: 1848 year

Location:

Country: Bulgaria Province: Gabrovo

Town: Tryavna

Museum: Museum of wood-carving and iconography art

Source: Country: Bulgaria

Other: Others

Characters: St. Archangel Michael

**Object Description:** A traditional iconographic treatment of the theme. Saint Archangel Michael is portrayed in full length, in full armour, with a red mantle on the shoulders.

Iconographical technique: Tempera

**Technique description:** The technique is accomplished through velaturas and "probaster" on the armour. The varnish cover is applied thinly and evenly. The gilding on the aureole is with gold-leaf. There is some engraving on the saint's aureole.

Base: Wood



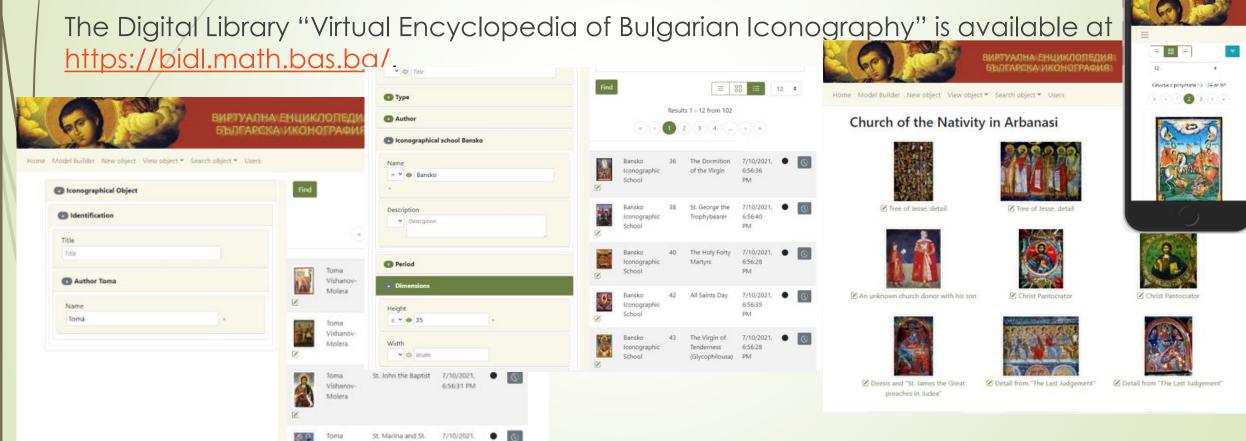




## Bulgarian Iconographical Digital Library - BIDL

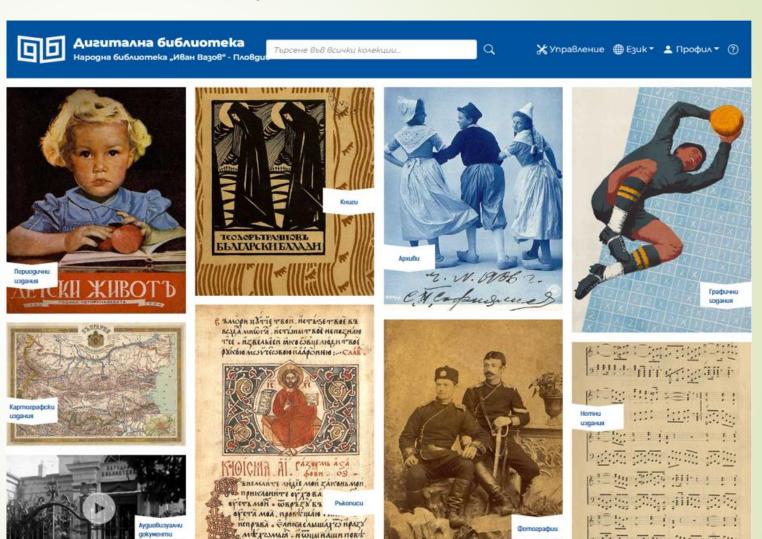
At BIDL, the user can familiarize oneself with the diversity which distinguishes Bulgarian icon

painting in both technological and thematical aspects.



#### Digital Library of the National Library "Ivan Vazov" - Plovdiv

The library's holdings are comprehensive and amount to over 1,900,000 library units – scientific, fiction, manuscripts, old-printed, rare and valuable publications, Bulgarian and foreign periodicals, photographs, maps, audiovisual and electronic documents, original works of art, personal libraries.

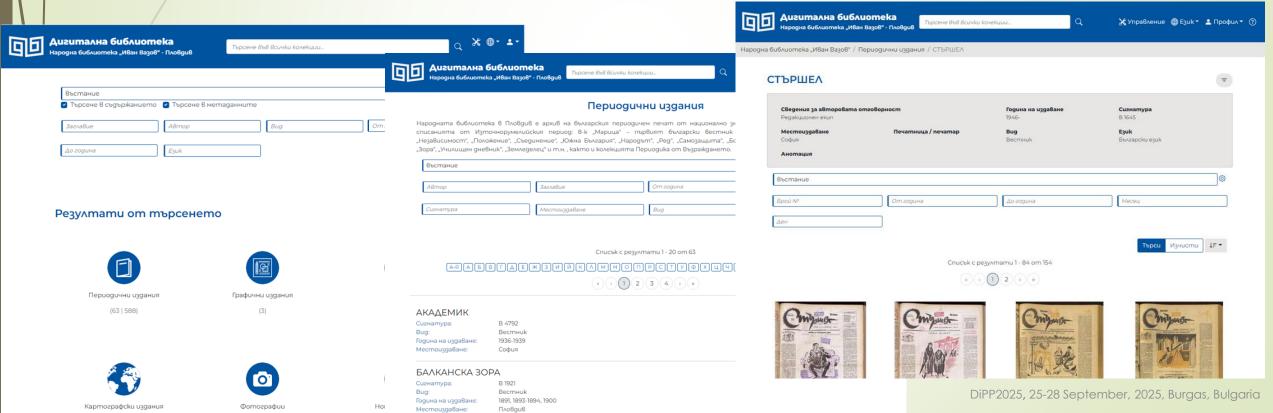


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## **CultIS** Implementations

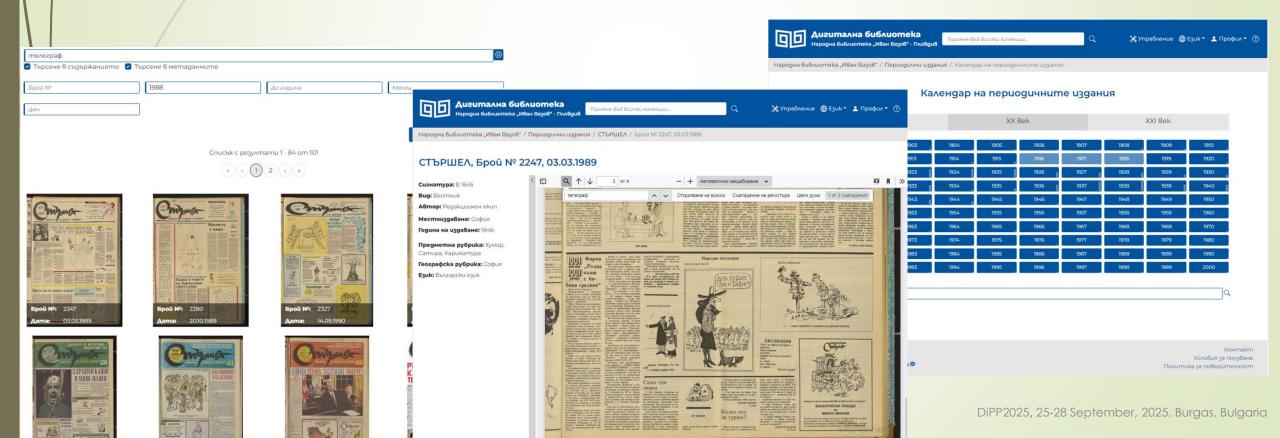
#### Digital Library of the National Library "Ivan Vazov" - Plovdiv

Specific services for intelligent content curation and context-based digital library content usage for research and e-learning, as a part of this module, include functionalities closely related to the content provider needs, such as advanced collection creation, management and curation (thematic collections, time dependent collections in a calendar structure, etc.), search in the text media objects, advanced objects preview and ordering, different device support, etc.



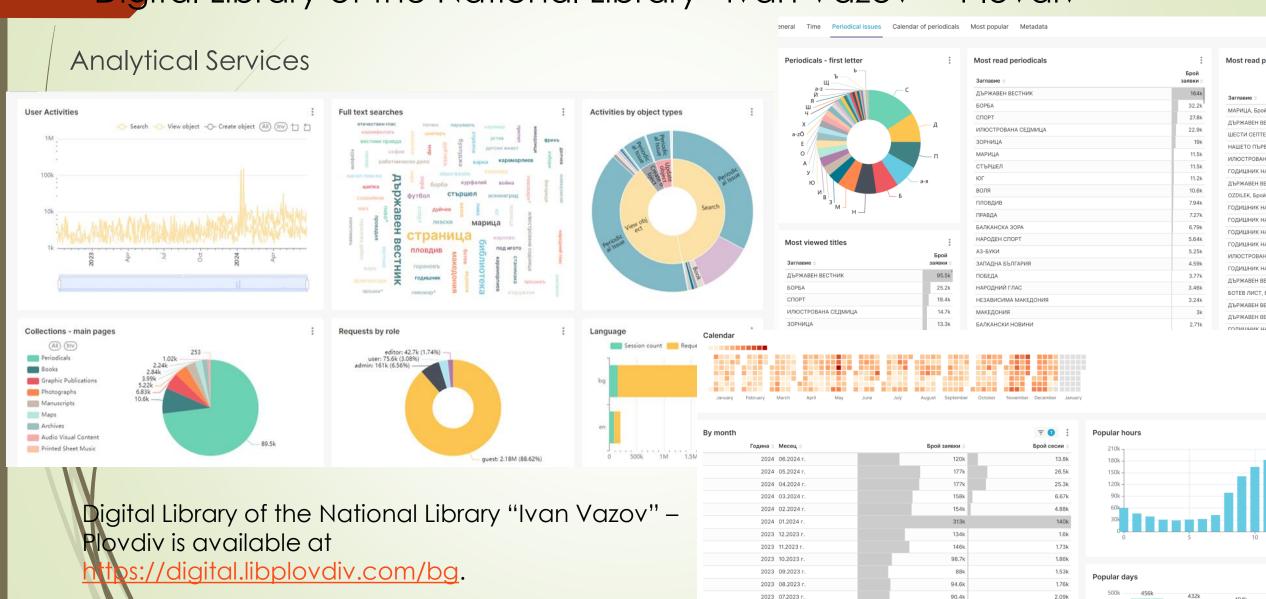
#### Digital Library of the National Library "Ivan Vazov" - Plovdiv

The prototype provides specific services for indexing PDF objects, providing the opportunities for full-text search in the objects' content. Functionalities for presentation of PDF objects in a web environment (without browser add-ons requirements), with options for search and visualization of the results in a certain document, are integrated in the system.

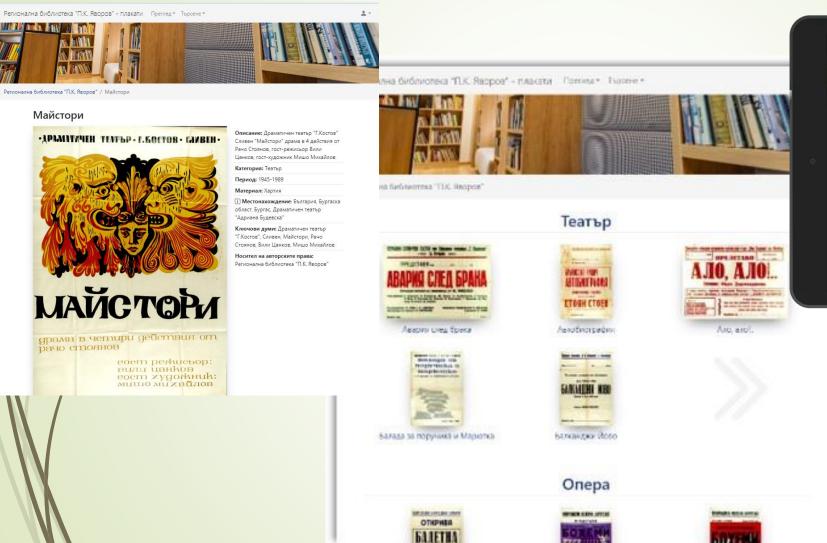


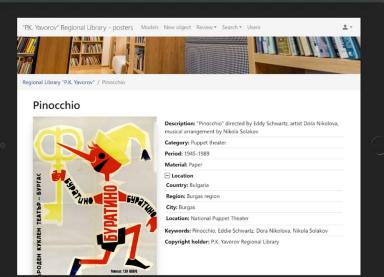
## **CultIS** Implementations

Digital Library of the National Library "Ivan Vazov" - Plovdiv



#### Digital Collections of the Regional Library "Peyo Yavorov" – Burgas

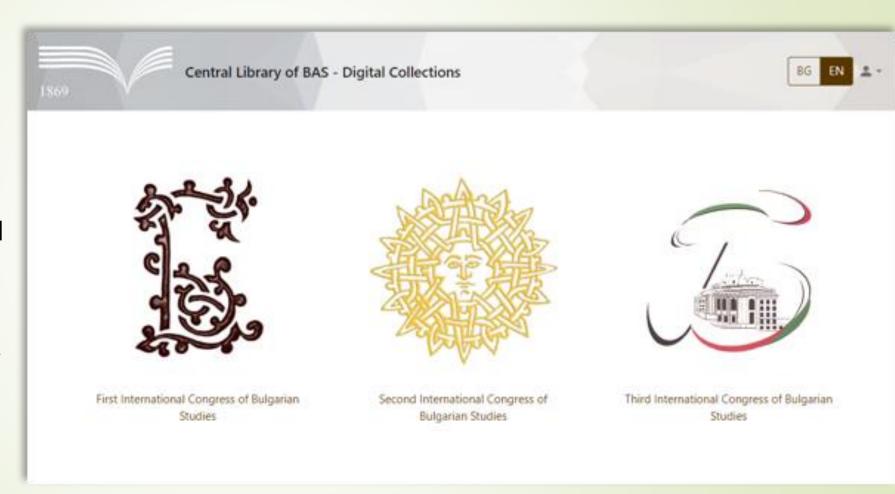




The collection of posters stored in the Library: <a href="https://plakati.bg73.net/bg">https://plakati.bg73.net/bg</a>.

#### Digital Collections of the Central Library of the BAS

The digital collections of the papers of the First International Congress of Bulgarian Studies and the Second International Congress of Bulgarian Studies are available at <a href="https://clbas.bg73.net/">https://clbas.bg73.net/</a>.



#### Encyclopaedia Slavica Sanctorum

The electronic Encyclopaedia Slavica Sanctorum (e-ESS) is a calendar-oriented multimedia resource combining medieval Slavonic and later Bulgarian written and oral materials about the Christian saints' cults amongst the Bulgarians.

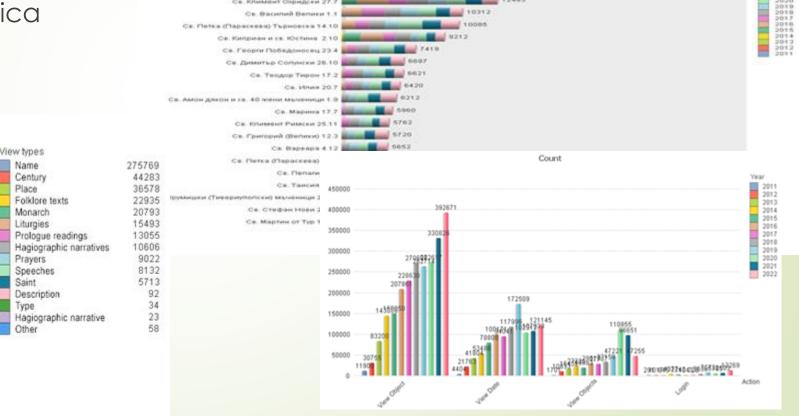


#### Encyclopaedia Slavica Sanctorum

An important characteristic of the electronic Encyclopedia Slavica Sanctorum is its integration with the Digital Library "Virtual Encyclopedia of Bulgarian Iconography".

The test implementation of CultIS for electronic Encyclopedia Slavica Sanctorum is available at <a href="https://ess.bg73.net/">https://ess.bg73.net/</a>.

View types



## Acknowledgements

The information day presents scientific results of

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