

# Digital preservation in Southern and Eastern Europe

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# SEE



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The cultural heritage of SEE countries  
is rich, of world significance and  
outstanding universal value!

# The Memory of the World Register of UNESCO

- Albania
  - Codex Purpureus Beratinus (2005)
- Serbia and Montenegro
  - Nikola Tesla's archive (2003)
  - Miroslav Gospel (2005)
- Croatia (with Hungary)
  - Tabula Hungariae (2007)
- Turkey
  - The Hittite cuneiform tablets from Bogazköy (2001)
  - Kandilli Observatory and Earthquake Research Institute Manuscripts (2001)
  - The works of Ibn Sina in the Süleymaniye Manuscript Library (2003)

Recommended for inclusion:

- Bulgarian proposal : Evangelium Assemanii

# Codex Purpureus Beratinus

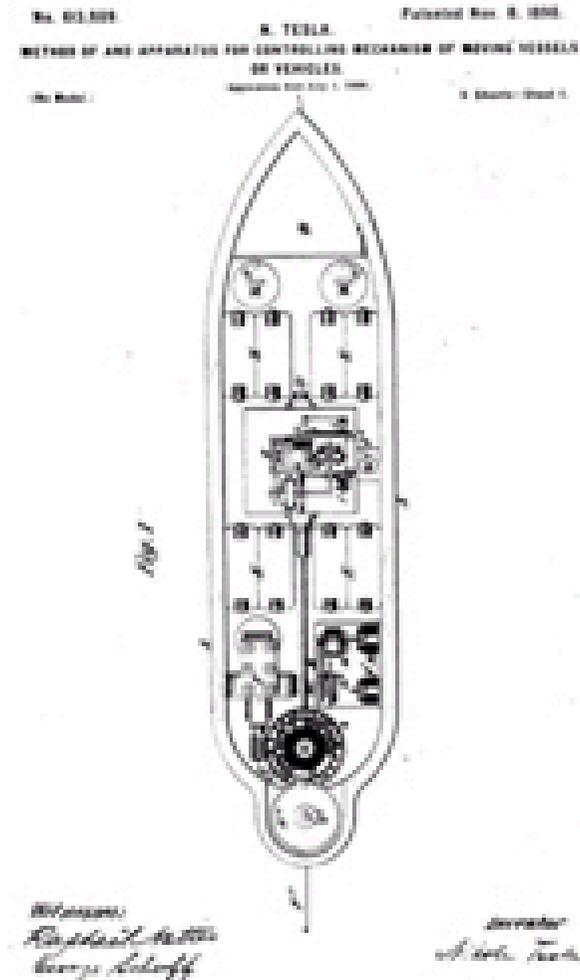
- Two very old Gospels (codices) found in Berat, Albania: “Beratinus 1”, dating from the sixth century, and “Beratinus-2” from the ninth century. Both form part of the seven “purple codices” which survive today. Two of the “purple codices” are preserved in Albania, two in Italy and one each in France, England and Greece.



# Nikola Tesla's archive

- Nikola TESLA'S Archive consists of a unique collection of manuscripts, photographs, scientific and patent documentation related to the history of electrification of the whole Globe.
- Nikola Tesla, (1856 - 1943) Serbian-born, American inventor and scientist, a pioneer in electrification, significantly influenced the technological development of our civilization by his polyphase system inventions.

In his honor, the magnetic induction unit (Tesla) of the SI system is named after him.



Method of and Apparatus  
For controlling Mechanism  
of moving vessels or vehicles

# Miroslav Gospel

The Miroslav Gospel, a manuscript dating from around 1180 with miniatures of outstanding beauty, is the representative of a group of illuminated manuscripts of specific style and iconography resulting from fusion of elements of the West (Italy) and the East (Byzantium). The valuable material - parchment and gilding - has been preserved almost completely and documents well the endowment power of Christian princes in the Balkans by the end of the 12th C. This manuscript represents the most precious and significant document in cultural heritage in Serbia.



# Tabula Hungariae



This document is a map representing faithfully and in much detail the structure of settlements that could be found on the territory of the Hungarian Kingdom (corresponding to the territory of modern Hungary, Slovakia and including parts of modern Austria, Ukraine, Romania, Serbia, Montenegro, Croatia and Slovenia). This representation has an even greater value due to the fact, that many settlements disappeared during the Turkish wars of the 16th century fought there.

# The Hittite cuneiform tablets from Bogazköy

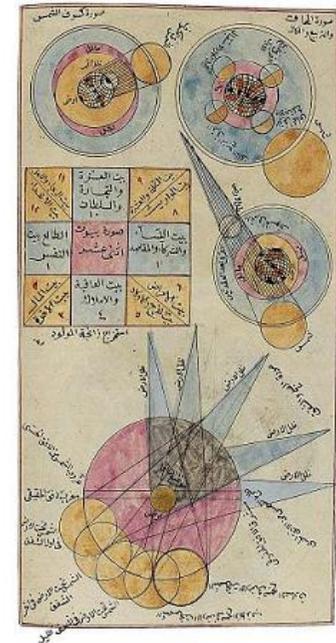
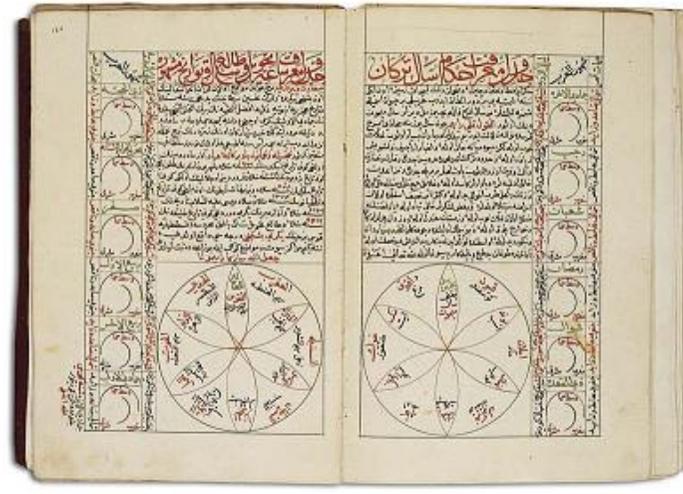
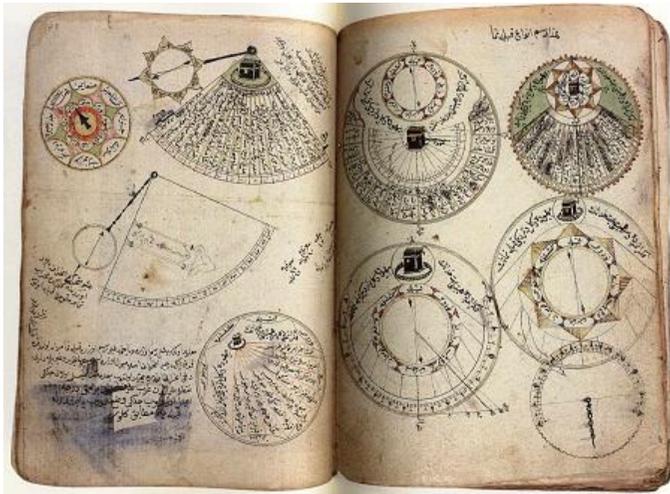
- During excavations in 1906 at Hattusa (Boğazköy) Hugo Winckler found the royal archive, consisting of 10,000 tablets, inscribed in cuneiform Akkadian.
- The language of the Hattusa tablets was deciphered by a Czech linguist, Bedrich Hrozný in 1915.



Egypto – Hittite Peace Treaty (c. 1258 BC)  
between Hattusili III and Rameses II

# Manuscripts in Kandilli Observatory

- Collection of 1340 works in 828 volumes on astronomy, mathematics and geography of the Islamic world
- calendars, astronomical yearbooks, and calendars of predictions compiled by the chief Ottoman astronomers
- in three languages (Turkish, Persian and Arabic)



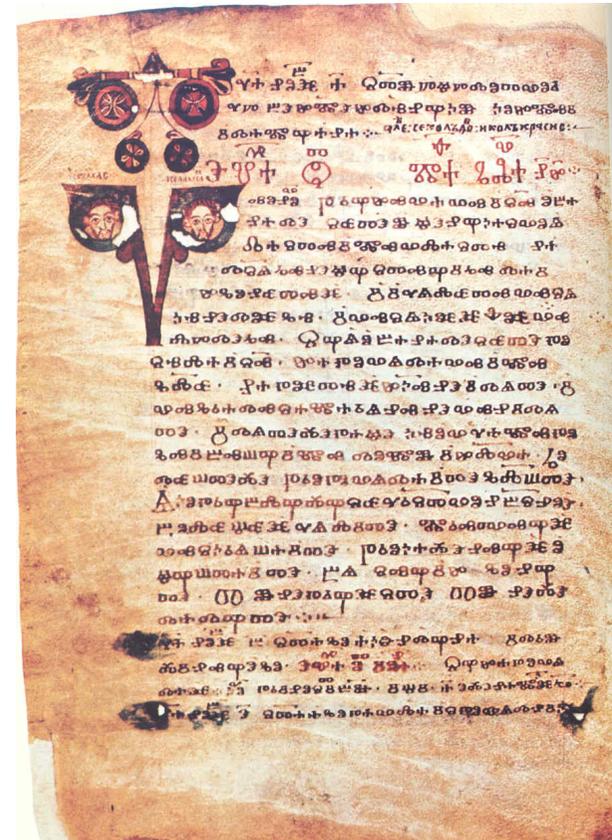
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# The works of Ibn Sina

- Ibn Sina (980-1038) ( known as Avicenna) is one of the most famous scientists of Islam. Great physician and a philosopher as well. Ibn Sina wrote about 450 works of which around 240 have survived..
- The Süleymaniye Manuscript Library in Istanbul is known to be possessing the manuscript copies of all the survived works of Ibn Sina. Almost all these works of Ibn Sina were written in Arabic.



# Bulgarian proposal



Evangelium Assemanii, Glagolitic script, End of 10<sup>th</sup> - beginning of 11<sup>th</sup> century

# UNESCO List of World Cultural Heritage

- Albania – 2
- Bosnia and Herzegovina – 2
- Bulgaria – 7
- Croatia – 6
- Moldova – 1
- Montenegro – 1
- Macedonia – 1
- Romania – 6
- Serbia – 3
- Turkey - 7

# Common characteristics of the SEE Region

- Past – rich cultural heritage
- Present - This heritage is underrepresented in the digital space
- Future – serious efforts, both financial and organizational, are needed.

# The current situation

- A SWOT (**S**trengths, **W**eaknesses, **O**pportunities, **T**hreats) analysis is proposed.
  - The SWOT analysis is used to evaluate the **S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats involved in a process by analyzing the environment internal and external to the process in question.

# Strengths

- Experience already available.
- Active dissemination.
- Trainings/specialist meetings done on a regular basis.
- Established professional bodies.
- Steady contacts with Institutions and experts from EU.

# Weaknesses

- Lack of established and working national strategies in the field of Digitization.
- Strong dependence on external funding.
- Quite specific purposes.
- Scattered experience.
- No mass digitization.
- Difference in approaches of technology centers and collection repositories (MLA's).

# Opportunities

- Numerous possibilities. Great amount of work to be done, space for creativity.
- Work in multilingual setting.
- Cooperation instruments are widely accessible.
- Local specifics may provide interesting cases.

# Threats

- Copyright issues.
- Small projects, scattered efforts.
- Various level of relevant experience.
- Lack of crosswalks.
- Work in conditions where neither governmental nor institutional policies are well established.

# Summarizing the current situation

- European importance of collections...  
...but they are not accessible in electronic form
- Main experience in pre-digitisation work, such as cataloguing, and text encoding...  
... but mass digitisation is still in early stages
- Digitisation work per se has not been done...  
... thus we do not match current EC priorities
- No governmental programme (respectively, funding)  
... i.e. external financial support is needed
- Regional cooperation is realistic

# Long term preservation in Southern and Eastern Europe

- The SEE cultural heritage institutions' main concern – the physical collections.
- Digital records are mostly derivatives of physical collections.
- The digitization takes up the available resources to such extent that planning beyond that phase is, for the moment, a bridge too far.



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# Problems

- Lack of awareness, risks are underestimated
- Shortage of knowledge and expertise, only a few institutions meet requirements
- Lack of funding, digital preservation requires also long-term funding
- Inadequate information management throughout the lifecycle, information is mismanaged at the creation phase.
- Deficiency of reliable storage capacity especially for smaller organizations.
- Insufficient manpower and/or IT capacity.
- Shortage of practical tools and long-term preservation services.
- Cultural sector institutions are not organized according to the demands of the digital age

# Coordination of efforts - SEEDI

- SEEDI is a joint effort to develop awareness about digitization of cultural and scientific heritage in the SEE countries along the Lund Principles of the EU.
- It is based on the acceptance that researchers and institutions from the region
  - share common scientific and cultural heritage;
  - face common problems.

# SEEDI Milestones

- Belgrade, May 2003 - Researchers from Serbia and Bulgaria lay the foundations of the future Initiative.
- Borovets, September 2003 - Representatives of institutions from different countries compile and sign a Declaration on the basic principles for the establishment of a Network in the SEE Region.
- Belgrade, June 2004 - the “SEEDI” abbreviation is proposed and accepted as name of the ongoing Cooperation Initiative.
- Ohrid, September 2005 - First SEEDI Conference “*Digital re-discovery of culture*”
- Sofia, June 2006 - First Regional Meeting of SEEDI. The Statute of the Initiative is compiled and voted.
- The third SEEDI International Conference: Digitization of cultural and scientific heritage, September 13-15, 2007, Cetinje, Montenegro
- The fourth SEEDI International Conference: Digitization of cultural and scientific heritage, June 12-15, 2008, Belgrade, Serbia
- Belgrade, April 2009 – Second Regional Meeting of SEEDI.

# SEEDI Aims

- To mobilize the human and material resources in the region;
- To improve communication between institutions with similar scientific interest and to disseminate scientific and practical information in the field;
- To define strategies and priorities in the field;
- To generate joint projects;
- To foster collaboration between the EU and South-Eastern Europe countries.

# SEEDI Instruments

- Organization of Conferences, Workshops and Regional Meetings.
- Publishing of the Journal Review of the National Center for Digitization
- Use of a common mailing list for sharing ideas, concerns, views and experiences in the field of digitization of cultural and scientific heritage.
- Participation at common projects.

# Conclusions and recommendations

- Establishment of national infrastructures of repositories, services and tools (the role of IMI and SEEDI)
- Tasks:
  - Ensures awareness of the long-term preservation issues throughout the lifecycle of digital information;
  - Defines clearly roles and responsibilities to secure a smooth transfer from data creators to digital archives;
  - Ensures enough reliable repository capacity for storage and long-term management;
  - Ensures efficient sharing of services and tools between the parties involved ;
  - Advocates for dedicated funding
  - Ensures sharing of knowledge and expertise between stakeholders – nationally, regionally and internationally.

Thank you for your attention!