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Digitisation of Maritime and Shipping Heritage. The case of an emerging e-platform in Greece

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Maritime Heritage Platform



Maritime and Shipping Heritage

Development parameters

Economy and regional development

- In recent years there has been a tendency to approach economy from a variety of perspectives, other than the traditional ones. Culture dynamically emerges as an activity that can contribute to the growth of a country, without underestimating the importance of its spiritual role. The contribution of shipping to the Greek economy is undeniable. The aim is to use the maritime heritage for growth objectives.
- Cultural economy is studied internationally and is considered an important factor in the strategy for stimulating emerging economies. Within this international development model, classical economy is combined with the economy of culture and creation, giving birth to the need for new forms of culture with a dynamic approach to tradition, as an element of smart economy. In this context, maritime heritage seems to be an important area of potential, which still remains rather underutilized.
- At local communities level, we refer mainly to societies with a solid maritime potential, which are widely met in Greece. In such communities, while until recently the maritime heritage was a long-lived reality, in recent years there has been a gradual distancing. The risk for the identity of a region to lead to alienation is now considered to exist. It is therefore necessary for people in a region to keep contact with the elements of their local tradition, so that they are aware of their identity and they are the first to take action and rescue their maritime heritage. Already, initiatives in Greece for the creation of Museums or Maritime Tradition Institutions are usually taken by the inhabitants of the region, in collaboration with the local authorities. The results are assessed to be extremely positive for the local communities.



<http://www.greekshippingmiracle.org/el/special-sections/liberty/hellas-liberty-museum.html>

Culture

- Culture comprises a range of tangible and intangible assets, which are to be highlighted as a whole. New or less exposed aspects of culture may act as growth drivers. The underwater antiquities and the Greek shipbuilding history are typical examples.
- **The protection and promotion of maritime heritage has a lot to offer also at national level.** Observing the actions of other countries with a strong maritime tradition (for example Great Britain), we can easily distinguish how this tradition is highlighted as a component of their national culture. Similarly in Greece it is important to promote the maritime heritage, for every Greek to realize its important role in the course of the nation. It can be said that the modern Greek knows the economic dimension of maritime industry and greatly appreciates its contribution to prosperity. It is also worth understanding, however, the dimension of seamanship, which runs through our culture from Ancient Times and Byzantium, until the Revolution of 1821 and the modern era.
- Awareness of history helps the people progress, so it needs to be taught to them and they need to learn it. In the last decades of the 20th century, the structuring of tourism on a more solid basis, with clear orientation and well-defined objectives, emerged as a necessity.

Decision making process in digitizing maritime and shipping collections

- Cultural heritage is often at **risk** to be damaged and compromised in value → **need for innovative documentation and presentation methods**.
- A twofold **purpose**: to provide better access to unique objects, e.g. to make museum collections more easily available to a wider audience or for research & to combat the threat of losing them due to disasters and other environmental influences.
- **New forms of participation** and a broad range of new applications, services, and business models in areas such as education and life-long training, tourism or gaming, enabled by digitization offer a range of benefits to Europe's cultural heritage institutions and **can** therefore **add value** in the cultural heritage sector since they aid attract new audiences and generate additional revenue streams (Tausch et al.2019)
- **Crowdsourcing** projects are often leveraged by GLAM institutions → this approach may also serve **sustainable goals** since community is engaged and broad diffusion of knowledge is attempted.
- **Criteria** for selecting material to be digitised: Importance, rare materials, original items, importance for scientific studies, user needs, Collection disclosure ("Module 2 – Mobile Digitizing", 2019). The choice must be influenced by aesthetic, evidentiary, informative, intrinsic and artificial values; priority to unique/rare collections, over commercial/published collections, priority on non-copyrighted material over copyrighted material. Additionally, commercial/published collections should be digitized if they are considered to have continuous research value (Association of Greek publishers and booksellers, 2019).

Technologies

Issues arisen: efficient encoding of the data, archiving and making them accessible to the community and their visualization in the framework of CH applications

- Resolution
- Bit depth
- Standard Compression techniques
- Image enhancement
- Colour reproduction

Metadata standards for indexing of digital content should be applied, i.e. administrative, descriptive, structural and preservation metadata to all digital objects since they serve as tools for interaction with Web-based content. Hence, each object should be addressed by a catalogue record in the online catalogue (it is possible to be a collection-level record), which then can be mapped and/or harvested into other systems (IFLA, 2014, pp.13-14).

The EN.I.R.I.S.S.T. maritime heritage e-platform

EN.I.R.I.S.S.T. MARITIME E-PLATFORM



ENIRISST

Intelligent Research Infrastructure, Shipping, Supply Chain, Transport and
Logistics (EN.I.R.I.S.S.T.)

The EN.I.R.I.S.S.T. maritime heritage e-platform

SHIPMARK includes scans of models and designs that are related to emblematic categories / types of ships-boats historically.

SHIPSAIL data include digital files of sailing boats images are related to emblematic categories of sailing boats.

SHIPEQUIP data include scans of navigation instruments and related items.

Use cases of the platform

- Use of the platform and interconnected DBs of the platform for **educational purposes** (guest users)
- Possibility of **thematic search** and per type of item (for all users)
- Ability to operate the platform as a **communication channel** between the users with research activity
- Use of platform tools by operators for **mining** full text content, group presentations (active users)

Further possibilities

- The EN.IRRIST infrastructure is likely to provide tools and services that can be leveraged by all of its platforms. One of them is the Knime software, a free and open-source data analytics, reporting and integration platform. KNIME integrates various components for machine learning and data mining through its modular data pipelining concept. A graphical user interface and use of an API for the programming language Java allows assembly of nodes blending different data sources, including preprocessing (ETL: Extraction, Transformation, Loading), for modeling, data analysis and visualization without, or with only minimal, programming ("KNIME - Wikipedia", 2021)
- This software might be found useful for some sort of queries regarding part of the data sources connected to the platform. It is still under investigation and its usage at the platform might be attempted in future development.

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Thank you!

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