Experience from the Interreg Baltic Sea Region Programme project "BalticRLM" and Relevant Ideas for the Black Sea

Larisa Danilova, Andrei Lappo, ErmakNW
Alexander Okorokov, Likhachev Russian Heritage Institute
Marina Ulyanova, Leila Bashirova, AO IO RAS

Webinar on Underwater Cultural Heritage and Exploration of Potential Sites in the Black Sea. 13 April 2021
The underwater heritage of the Black Sea is very rich. More than 6000 UCH objects in a whole are identified in Russian marine areas.

The Likhachev Russian Heritage Institute produced Lists (Vault) of underwater cultural heritage sites of the Black and Baltic Seas, Arctic and Far East, as well as Russian underwater cultural heritage sites sunk abroad (2000-2015).

UCH List of the Black Sea contains:
- Antique period (VIII BC - VI AD)
- Middle Ages (VII - XVI)
- Modern times (XVII -1918)
  - World War I (1914-1918)
  - World War II (1941-1945)
  - Post-war period (1946-present)
- Newest time
  - Civil War (1918-1920)
  - Civil War (1918-1920)
  - Civil War (1918-1920)

Phanagoria, 1st century BC. Depth 2 m.
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BalticRIM: Baltic Sea Region Integrated Maritime Cultural Heritage Management

About the project
BalticRIM brings together archaeologists and spatial planners from Baltic Sea countries to integrate the maritime cultural heritage into maritime spatial plans for a sustainable management and protection of underwater sites.

www.balticrim.eu
BalticRIM Outcomes. Cases

Finnish cases: four case study areas

Russian case: South-Eastern Baltic & Gulf of Finland

Danish case: The Oeresund and the Bay of Koege

Danish-German case: Flensburg Fjord

Lithuanian case - Relict forest area

Polish case: Puck Lagoon & Gulf of Gdansk

Finnish-Estonian case: Gulf of Finland

Finnish case: Underwater landscape in the Baltic Sea MSP context

German case: Schleswig-Holstein’s maritime cultural heritage Consistent approach for the heritage management

The project has completed 9 cases, 3 of which were of the cross-border nature.
RU-FI case. Way of the Stones

RU-FI Case
- State Border
- RU-FI Case Area
  - RU-FI Case area_RU
  - RU-FI Case area_FI (Undecked)
- RU-FI Case objects
  - WM, wrecks, Stone cargo, RU
  - Wrecks, Stone cargo, FI
  - HZ: Historical quarries, RU
  - Historical quarries, Vindshult, FI
- Other Underwater cultural heritage
  - HW: Wreck, Non-Stone cargo
- Transport
  - SA: Anchorage
  - SP.Stop, Sealing
  - SDL: Deep-water routes
  - SO: Forbidden shipping
- Line infrastructure
  - LT: Telecommunication cable
  - LP, Pipeline Nord Stream 1
  - LP: Pipeline Nord Stream 2
  - LE: Electricity cable
- Agriculture
  - FT: Fishing, travel
  - TV: Fishing, Inshore, SF
- Extraction
  - SF: Sand and gravel
  - EP: Paramaniasic modules
- Nature and species protection
  - MPA, LC: Specially protected nature areas
  - MPA, SF: Specially protected nature areas
- Scientific research
  - BM: Monitoring stations
- Military areas
  - MT: Military training areas
  - MM: Military mines training areas
- Tourism and recreation
  - TL: Leisure boating existing
- Special zones
  - OBC: Burned
  - OHA: Burnt hazardous landfill

RUSSIAN-FINISH CASE
RU: 6 cargo vessels with stones and 10 quarries
FI: 15 quarries

The Russian-Finnish case named "The Way of the Stones" gathered data on granite quarries where granite was mined for the construction of St. Petersburg in the 17th century, as well as on sunken vessels that transported granite.

The case offers GIS data, a history of quarries, an eventful tourist route, and an exhibition. Scientists, researchers, divers, pathfinders and planners took part in the development of the case.
BalticRIM Outcomes. Sites analyses

Data collection

Data verification and clarification
classification of heritage sites

After checking the coordinates, UCH sites were classified, their formal status, regional and national value, social benefits were discussed.
<table>
<thead>
<tr>
<th>Site Code</th>
<th>Description</th>
<th>Heritage Wrecks - HW</th>
</tr>
</thead>
<tbody>
<tr>
<td>HU-HW-GF-01</td>
<td>Nonidentified wooden two-masted cargo</td>
<td>Discovered in 2000–2003 when surveying the water area along the North European gas pipeline. Received the name</td>
</tr>
<tr>
<td>HU-HW-GF-02</td>
<td>Nonidentified wooden sailing ship (18th – 19th century)</td>
<td>Discovered in 2000–2003 when surveying the water area along the North European gas pipeline. Received the name</td>
</tr>
<tr>
<td>HU-HW-GF-03</td>
<td>&quot;Die Engiel Raphal&quot; (Verkkomatala 1), merchant ship (17th century)</td>
<td>It was discovered in 2002 at a depth of about 15 m. And was surveyed in subsequent years by the expedition of the Center for Underwater Research of the Russian Geographical Society. The ship was built in 1693 at the</td>
</tr>
<tr>
<td>HU-HW-GF-04</td>
<td>&quot;Sibir&quot;, military transport</td>
<td>He followed from Tallinn to Leningrad under the command of Captain Chugunov, having 890 wounded and 410 people</td>
</tr>
<tr>
<td>HU-HW-GF-05</td>
<td>&quot;Atis Kronvalds&quot;, military transport</td>
<td>Former German cargo ship. Built in 1900 (Neptunwerft AG, Rostock, Germany). The total capacity is 1,423 brt.</td>
</tr>
<tr>
<td>HU-HW-GF-06</td>
<td>&quot;Ausma&quot;, military transport</td>
<td>Former English cargo ship. Built in 1889 (Turnbull, Thomas &amp; Son, Whitby, UK). Full capacity 1791 brt. Dimensions 78.9</td>
</tr>
<tr>
<td>HU-HW-GF-07</td>
<td>&quot;Gavril&quot;, destroyer</td>
<td>Built in Revel (Tallinn), launched on 12/23/1914 (01/05/1915), entered service in October 1916. Length 98</td>
</tr>
<tr>
<td>HU-HW-GF-08</td>
<td>&quot;Constantin&quot;, destroyer</td>
<td>During the autumn battle for Petrograd in 1919, together with the destroyers Gabriil, Svoboda and Azar produced mine obstacles in the Koperovsky Bay, October 21, 1919, at 3 hours and 50 minutes, hit a mine. During the explosion, a detonation of mines prepared for staging occurred, as a result of which the hull broke in half and the destroyer instantly sank with the whole crew</td>
</tr>
<tr>
<td>HU-HW-GF-09</td>
<td>Russian 44-cannon ship of the line &quot;Portsmouth&quot;, 1719</td>
<td>Sank on September 30 - October 1, 1719, stranded on the southern shore of the Neva Bay, opposite the island of Kotlin, from where it was demolished by a &quot;depth&quot; storm, where it sank. The remains represent a 24-meter fragment of the central and aft parts of the hull, which lies at a depth of 8 m.</td>
</tr>
<tr>
<td>HU-HW-GF-10</td>
<td>Swedish military yacht &quot;Aurora&quot; (Krestovyy III), 1790</td>
<td>Beams, whales, deck decks, bulkheads, hull formwork and partial spacing around the ship within a radius of 20 meters. Most of the structural elements lie around the</td>
</tr>
<tr>
<td>HU-HW-GF-11</td>
<td>Swedish 44 (40)-</td>
<td>The project of the frigate was developed by the</td>
</tr>
</tbody>
</table>
Example: Overlapping of the UCH and trawl fishing in the Gulf of Finland.
BalticRIM Outcomes. Blue Growth and planning

Example: Pilot Area 2, Gulf of Finland

Zoning

<table>
<thead>
<tr>
<th>SubBasin</th>
<th>Priority use</th>
</tr>
</thead>
<tbody>
<tr>
<td>sBS2-1</td>
<td>MPA and UCH protection</td>
</tr>
<tr>
<td>sBS2-2</td>
<td>UCH</td>
</tr>
<tr>
<td>sBS2-3</td>
<td>Shipping and UCH protection</td>
</tr>
</tbody>
</table>

Matrix of conflicts

<table>
<thead>
<tr>
<th>Marine sectors</th>
<th>Compatibility with UCH Pilot area 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping, incl.</td>
<td>does not overlap</td>
</tr>
<tr>
<td>- fairways</td>
<td>does not overlap</td>
</tr>
<tr>
<td>- ports</td>
<td>does not overlap</td>
</tr>
<tr>
<td>- anchorage</td>
<td>does not overlap</td>
</tr>
<tr>
<td>Military areas</td>
<td>does not overlap</td>
</tr>
<tr>
<td>Mining</td>
<td>does not overlap</td>
</tr>
<tr>
<td>Travel fishing</td>
<td>partially overlap</td>
</tr>
<tr>
<td>Pipelines and cables</td>
<td>does not overlap</td>
</tr>
<tr>
<td>Offshore wind energy</td>
<td>does not overlap</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>does not overlap</td>
</tr>
<tr>
<td>Tourism and recreation</td>
<td>does not overlap</td>
</tr>
<tr>
<td>Nature protected areas</td>
<td>does not overlap</td>
</tr>
<tr>
<td>Habitats and spawning areas</td>
<td>partially overlap</td>
</tr>
<tr>
<td>Scientific research</td>
<td>does not overlap</td>
</tr>
</tbody>
</table>

Legend:
- conflict
- partially compatible
- conflicts are unlikely
<table>
<thead>
<tr>
<th>Attributes</th>
<th>Attribute value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td>Polygon</td>
</tr>
<tr>
<td>Name</td>
<td>SubBasin 03</td>
</tr>
<tr>
<td>PilotArea</td>
<td>Pilot area 2</td>
</tr>
<tr>
<td>ID</td>
<td>sBS2-1</td>
</tr>
<tr>
<td>FullName</td>
<td>Nature protection and Underwater cultural heritage</td>
</tr>
<tr>
<td>Priority</td>
<td>MPA and UCH protection</td>
</tr>
<tr>
<td>Reserved</td>
<td>HU</td>
</tr>
<tr>
<td>Allowed</td>
<td>ND, TD, TW, TL, OR, R</td>
</tr>
<tr>
<td>Restricted</td>
<td>TS, TR, M, L, FR</td>
</tr>
<tr>
<td>Forbidden</td>
<td>I, E, S, A, O, FT, FI, ODU, OHL</td>
</tr>
<tr>
<td>Explanation</td>
<td>SubBasin of MPA and UCH determines the activities that ensure the protection of biodiversity and UCH protection.</td>
</tr>
</tbody>
</table>
BalticRIM Outcomes. Blue Growth and planning

Pilot MSP for the south-eastern part of the Baltic Sea including two types of the MCH sites:
- Listed in the National cultural heritage register of Russia
- Revealed cultural heritage sites

Conflicts in the coastal zone
- Dumping
- Fishing, fish farming, and aquaculture
- Hydrocarbons exploring
- Mining operations

Synthesis map of the BalticRIM recognized MCH priority areas and the threatening sea uses in Kaliningrad Oblast, Russia. Elaboration of content by Jacek Zaucha, Magdalena Matczak, Joanna Witkowska (CMUMI), Iwona Pomian, Krzysztof Kurzyk (NMM), data processing and maps by Joanna Pardus (CMUMI).
BalticRIM Outcomes. wiki

http://dokuwiki.balticrim.eu/

The BalticRIM WIKI contains selected MCH and UCH terminology with attached definitions and visualizations along with basic MSP glossary. It introduces those heritage terms that have a specific use regarding MSP perspectives. This meant, in particular, maritime and underwater site categories that are geographically large-scale phenomena and thus suitable for the wide scale of MSP.

The BalticRIM WIKI:

- gathers together selected maritime and UCH site categories, terms and definitions in one location
- is based on an agreement on common MCH and UCH terms and their consistent use in the project
- develops cultural heritage terminology and definitions for less known site categories such as “ship trap”.

Maritime Cultural Heritage (MCH)

Definition:
Maritime Cultural Heritage (MCH) are cultural heritage formed by material and immaterial elements of maritime and the sea, and the society and culture that are either inherent or partly in the under-water cultural heritage. MCH includes all kinds of maritime cultural heritage, both tangible and intangible, and all related to communication, exchange and travel, as well as naval, marine and maritime cultural heritages passed from generation to generation and preserved in different communities or areas.

Subcategories of Maritime Cultural Heritage:
- Nautical cultural heritage
- Underwater cultural heritage
- Historic sea routes
- Maritime archaeological sites
- Maritime navigation

Ship trap

Definition:

Natural sea traps: areas where traps have been built in the sea to obstruct the movement of vessels. One of the earliest examples is in the Baltic Sea off the Norwegian coast, where ships were trapped in the ice and frozen to death. The traps were built from ice, and they were often connected by a network of tunnels or channels to allow vessels to enter and exit. The traps were built using ice blocks and were connected by a network of tunnels or channels to allow vessels to enter and exit. The traps were built using ice blocks and were connected by a network of tunnels or channels to allow vessels to enter and exit. The traps were built using ice blocks and were connected by a network of tunnels or channels to allow vessels to enter and exit.
**BalticRIM Outcomes. Game «MSP & MCH»**

**MSP & MCH** - Interactive Game on maritime spatial planning for marine cultural heritage

**Objective:** MCH stakeholders recognize the importance of applying an integrated and ecosystem-based approach to planning and management of the sea and coastal areas, as well as the neediness to harmonize the marine economic sectors.

Specificity of the game is the emphasis on the MCH sector and its inclusion in maritime spatial plans as a specific object of management and preservation.

MSP Game "MSP & MCH" was developed for the project BalticRIM on a basis of two existing interactive games – "MSP Challenge" (Netherlands, Bredo University) and "Maritime spatial planning. If I were a decision-maker!" (Russia, ErmakNW).
BalticRIM Outcomes

RUSSIA

301 MCH objects in the Gulf of Finland and the south-eastern part of the Baltic Sea has been mapped and systematized

Book “Marine cultural heritage of Russia. The Baltic Sea” was published
BalticRIM. Lessons learned

- A large number of UCH sites have not yet been surveyed or even identified.
- Management and preservation of UCH depends on specific regional environmental conditions and ongoing economic activity.
- International UCH legal framework is strong enough, but weak UCH regional and national framework in typical for most countries and sea basins.
- Some of the UCH sites store the history of several countries (who constructed, flag, cargo, place of death).
- UCH sites, especially densely located, contributes to the formation of protected landscapes.
- Some underwater objects are still dangerous (fuel, explosives, toxic substances).
- Low temperatures and turbidity of water reduce the availability of UCH sites for divers.
- The extension of the tourist season and access to great depths is facilitated by the use of underwater vehicles (bathyscaphes, mini submarines).
Black Sea. Project Idea

- UCH identification and mapping
- Black Sea Region coherent approaches to the MCH management (probably incl. Sea of Azov)
Black Sea. Common UCH management objectives

- Research, identification, examination and validation of UCH sites
- Mapping and unified UCH catalog (list) and regional GIS portal
- Assessment of the impact of current and future environmental conditions, taking into account climate change
- Mapping of existing and prospective marine economic activity
- Zoning and establishment of regulations, allocation of UCH protective zones (cultural landscape concept for ex.) in national MSPs

General approaches to UCH management

- preservation “in site” or in proper underwater place (archeological park)
- lifting of individual items for the museum expositions
- lifting sites as a whole and their museification
- well managed and controlled access to UCH
- international tourist and diving routes
- cross-sectoral interaction, for example with yachting
- strong Black Sea brand as MSH tourist destination
Black Sea. First steps for the regional MCH management policy development

Pan-Black Sea

- Black Sea Region UCH framework formation
- Regional Data set and Data portal development
- Joint MCH working group on the preservation and use of UCH sites
- Development of Principals and Recommendations for the preservation and use of Black Sea UCH
- Mobile and Interactive exhibitions and tours

Bilateral cooperation

- Joint expeditions to UCH sites of common history
- Coherent integrated maritime management plans, incl. spatial planning
- Joint projects for the preservation and use of MCH sites with common history
- UCH tourist traps to places of common history
Thank you for your attention!

Towards effective management of the Black Sea maritime cultural heritage!