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WEB GIS

UNDERWATERMUSE MAP

Veneto Region

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The work has mainly been researching the best way to develop an online map (but that could also be exhibited in museum rooms) of the underwater archaeological sites of the Adriatic, which had the following characteristics:

- georeferenced, the map had to have the GPS coordinates as reference;

- available online, therefore it can be visited from different devices such as desktop computers, tablets or smartphones;

- the design of the map had to be as customizable as possible to have the appearance of a innovative and professional product;

- the user interface ("user interface") had to be able to provide clickable buttons, images, video viewers, etc ... to be able to adapt to the different contents to be shown for each place;

- the map had to be interesting for a non-expert public and therefore to be used as a vehicle contents linked to a specific cultural context towards the widest possible audience, given the tourist-cultural purposes of the UnderwaterMuse project;

- a system had to be easily used by all project partners for uploading the contents of the diving sites.

After these premises, the team began to investigate what tools already existing online could have been useful for our purpose.

MAPBOX is the most complete tool for creating a map totally customized georeferenced and with the ability to view any type of content digital relative to the underwater archaeological sites included in the map.

UnderwaterMuse Map was hosted by the Ca' Foscari server at the following web address http://mizar.unive.it/underwatermusemap/ .

The frontend (the part of the system that manages the user interface and interactions) is managed through the React JS JavaScript application and the map style is managed through Mapbox, as explained previously. The backend (the part that processes the data coming from the frontend) is managed through Node JS and Strapi was used to organize the contents and their loading.

The Strapi management system made it possible to create site cards with fields to be completed as Title, location (GPS coordinates and short description), Depth, Dating, Description, Status, How to visit (if the site can be visited), Bibliography and fields for uploading images, videos that are directly linked from Youtube, historical maps and 3D models, where present.

The map is now online, the contents have all been uploaded in two languages (Italian and English) and verified with the Superintendencies. The map can be visited both from desktop computers and from tablets or smartphones, because the layout is responsive and therefore adapts to the size and aspect ratio of different screens.

We have also added the ability to filter sites by geographical area (Veneto, Friuli Venezia Giulia,

Puglia and Split region), by category (wrecks, underwater structures, museums and other sites) and by status of accessibility (accessible, not accessible and museum).

We have added a section describing the UnderwaterMuse project, with partners and collaborations and we have also inserted a "search" button so that you can directly type a site name for be able to find it easily.

We uploaded the contents and checked the contents of the Veneto files and supervised the operations of uploading of the contents by the project partners, after having explained to them how to interact with the Strapi system.

The map will be exhibited at the Caorle museum in a section dedicated to the UnderwaterMuse project, where it will be hung a 55 "touch monitor through which visitors can interact with the map and view the contents, as on the other hand they can do online from a PC or smartphone.