



ARACNE

ADVOCATING THE ROLE OF SILK ART AND CULTURAL
HERITAGE AT NATIONAL AND EUROPEAN SCALE



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ArcGIS User Guide

Educational Project - Cultural Heritage Path

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Abstract

This is a short guide to using the ArcGIS Online application for the ARACNE project educational activities. The application is used for creating the geo-located map produced by students as part of the Cultural Heritage educational path, following the collection of materials and sources during the field research phase.

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1. Introduction

The ArcGIS Online application has been chosen for the educational activities planned by the Aracne project for the creation of a geo-located map of the new "European Silk Route" because its usage, for historical and cultural content, is very straightforward and versatile. The application can also be used on tablets and smartphones (although the latter is less recommended due to the smaller screen size). No software installation is required. This allows all students to participate in the activity from home using their own devices.

2. Account

For using ArcGIS Online, it is necessary to have a registered account. There are two types of accounts:

- **ArcGIS public account:** This is a free account that allows limited usage of the application. It does not permit collaboration with other accounts to create a shared map. It can be used by teachers or students for individual projects or exercises. You can create a public ArcGIS account using ArcGIS credentials (an e-mail address paired with a password) or social credentials (such as Facebook and Google). It's possible to transform a public account into an organizational account when invited to join an organization that provides the license. When the public account becomes organizational, all user content is transferred to the organization.
- **ArcGIS organizational account:** This is a licensed organizational account that allows sharing and collaboration with other members of the organization, participating in groups, and saving your work. It also enables cooperation with other organizations and access to numerous services. For example, it allows the use of some ArcGIS applications that are essential for the educational activities planned by the project, such as ArcGIS Dashboard for map navigation by guest and ArcGIS StoryMap for presentations and storytelling of geo-located points.

For further information on the types of accounts and limitations of free accounts [click here](#).

For further information on how to subscribe to a public account: [click here](#).

2.1 The Organizations

Through a subscription to ArcGIS, an organization is created, which for the ARACNE project is [CREA-AA - Centro di Ricerca Agricoltura e Ambiente](#). The organization can manage all geographic content in a cloud-based, Esri-secured environment (Esri being the producer of ArcGIS). Organization members can create and share maps, apps, and other content, explore data, and publish them.

For the activity planned within the Cultural Heritage pathway, it's necessary for the class's working account to be added to the organization [CREA-AA - Centro di Ricerca Agricoltura e Ambiente](https://crea-aa-centro-di-ricerca-agricoltura-e-ambiente.it), as the coordinating partner for the educational activity. A user becomes a member of an ArcGIS organization after **being added** by the administrator or after **accepting the invitation** to join the organization.

Thus, it will be necessary to communicate the username or the e-mail address (which will be used to subscribe to the service) by sending an e-mail to education@aracneproject.eu, in order to facilitate the process for an administrator.

If a public account has been subscribed to, it is necessary to convert it into an organizational account by acquiring a license.

2.2 ArcGIS for Schools Bundle

Teachers can request a free ArcGIS for Schools Bundle, which includes accounts for all teachers and students. The accounts provide secure access to mapping software, apps, and data. These accounts are valid until July 2025. The request can be sent to the following [link](#) (verify that you meet the required qualifications).

Once the organization belonging to the school is created, the accounts, groups, and the organization itself can be invited to collaborate with other organizations for the creation of shared maps.

3. Login

Access to ArcGIS Online is done through the website <https://www.arcgis.com/> or from the organization's page <https://crea-aracne.maps.arcgis.com/home/index.html> by entering the credentials after clicking in the appropriate area.

Note: Enter the Username, not the registration e-mail address.

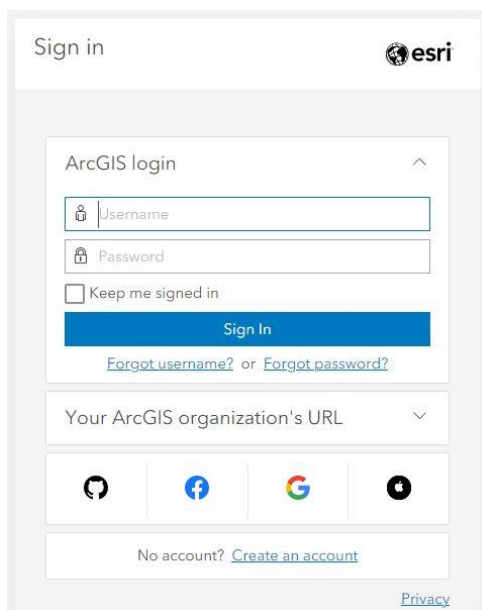


Figura 1 - Sign in form

4. CREA-AA Organization

After logging in, you will access the home page of the organization CREA-AA.



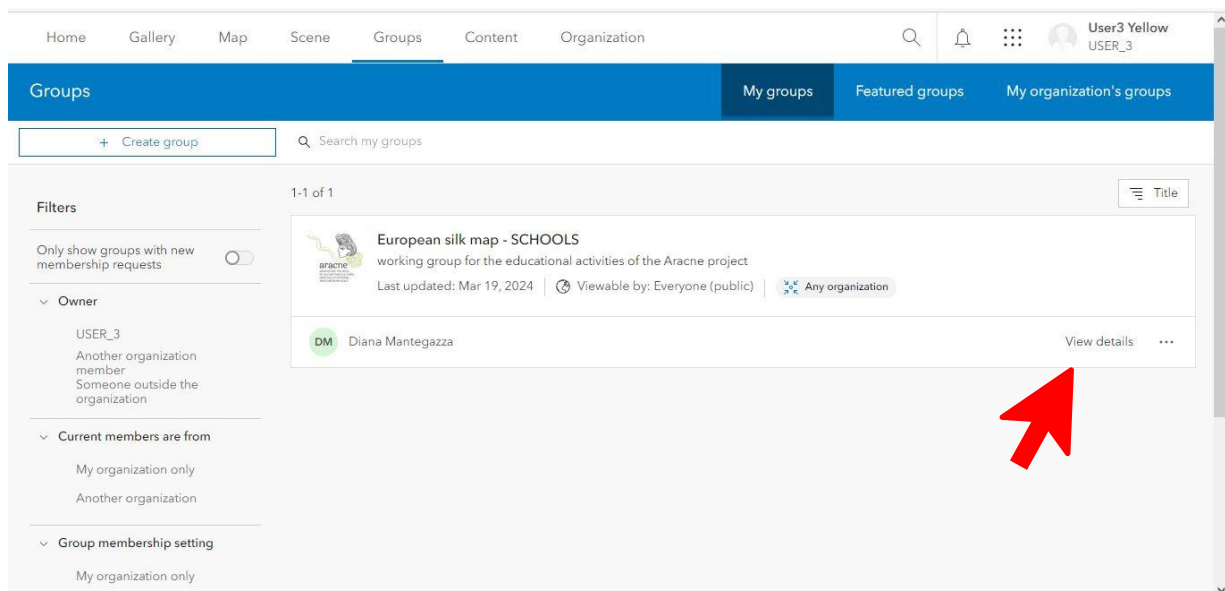
The top menu displays the various contents.:

- Gallery: It contains all the media produced by the members and shared with the organization.

- Map: to open the map viewer and work on maps (create a new map or open an existing one)
- Scene: Tool not useful for educational activities, do not use.
- Groups: It contains the working groups present in the organization. Among the groups is the *European Silk Map - SCHOOLS* group to share activities of the educational project.
- Content: To view and manage all the contents created with the current account.
- **It is important to share the contents with the organization and the working group to allow other users to view and use them.**
- Organization: To view the members of the organization and their roles.

4.1 Groups

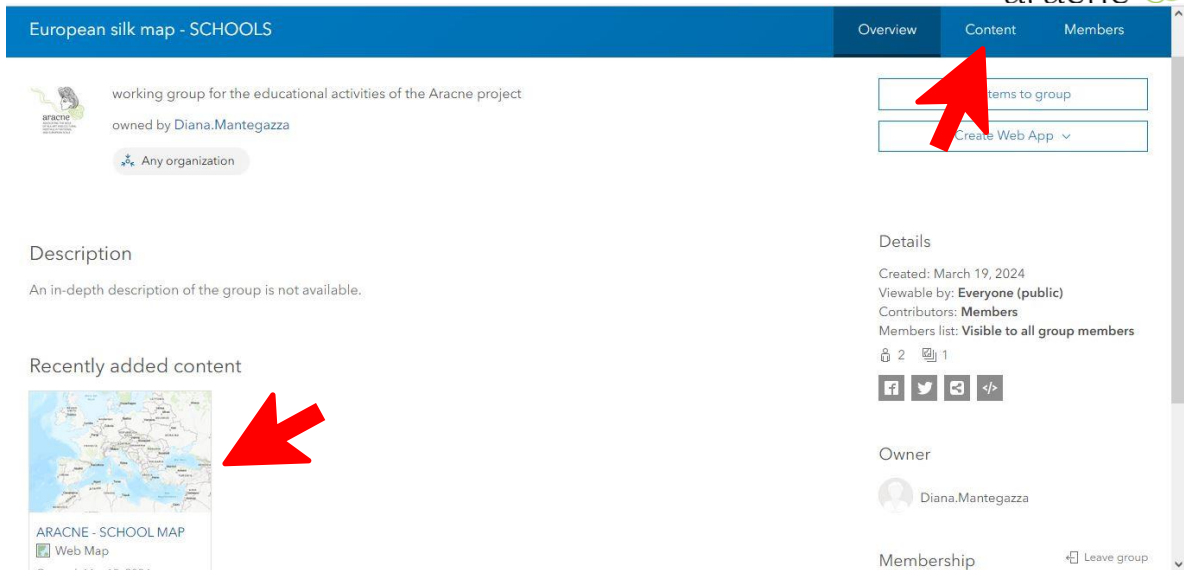
The working groups allow sharing maps and layers among members.



The screenshot shows the ArcGIS Online interface with the 'Groups' tab selected. The main content area displays a list of groups. The first group is 'European silk map - SCHOOLS', which is a working group for the educational activities of the Aracne project. It was last updated on Mar 19, 2024, and is viewable by everyone (public). The group is owned by USER_3 (Diana Mantegazza). A red arrow points to the 'View details' link next to the group name.

In this area, all the working groups will be listed. The *European Silk Map - SCHOOLS* group is the working group for the educational activities of the Aracne project.

Click on *View details* to open the contents of the group.

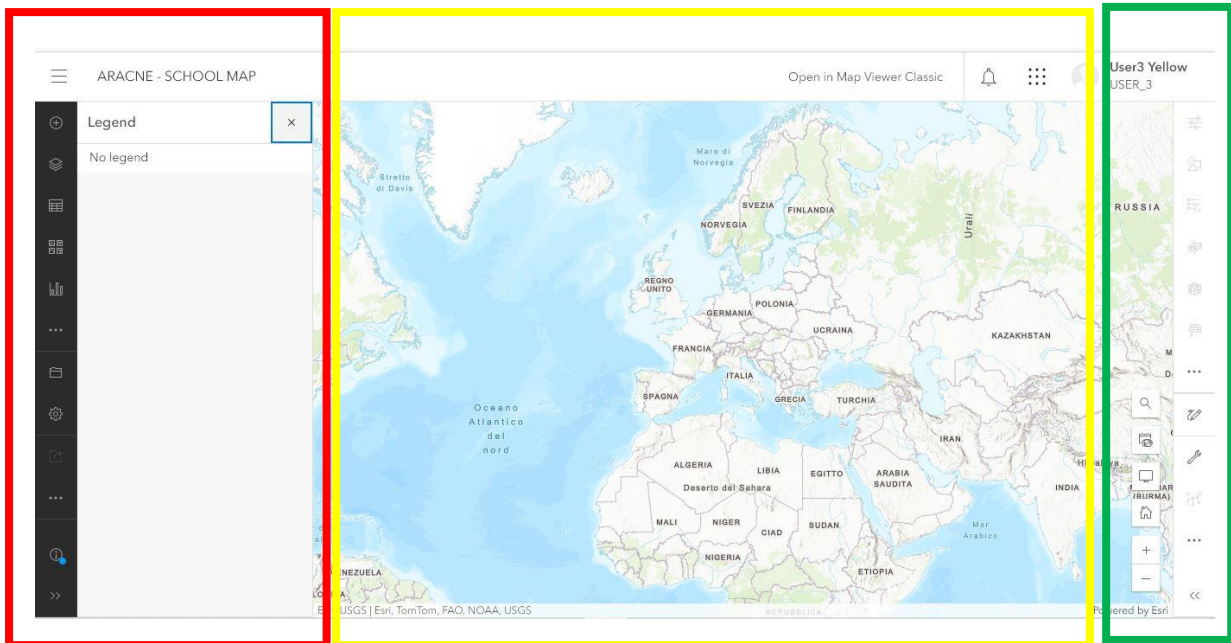


Within the group, all the maps in progress are available.

If the map is not present in the section dedicated to recent contents, you can find it by clicking on the *Content* item in the menu at the top right.

5. Map Viewer - editor

A map is automatically opened by the map viewer, which is composed of 3 areas:



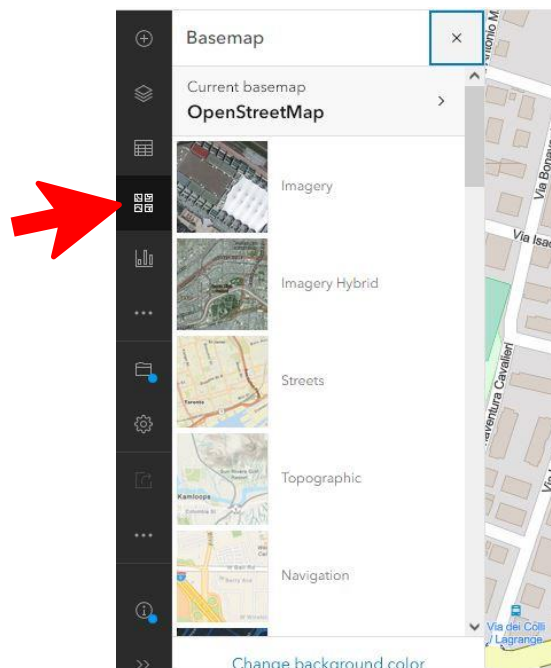
- **Red area:** Contains the **toolbar for adding layers** (points), setting the base map, adding elements to the map, and **saving**.

- **Yellow area:** Contains the **map** on which to geolocate the points.
- **Green area:** Contains tools for **navigating the map** (address search tool, fullscreen view, etc.) and tools for **editing** elements added to the map.

5.1 Map setting

To create a new map, simply open the *Map* item from the top menu

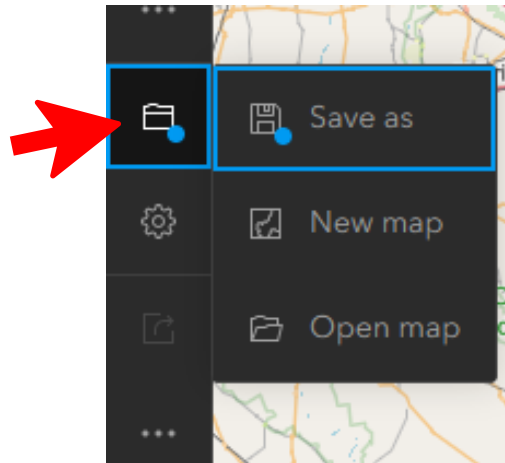
Set the most convenient base map for searching locations to geolocate. Open the dropdown menu of the basemap tool and select the desired map.



5.2 Save map

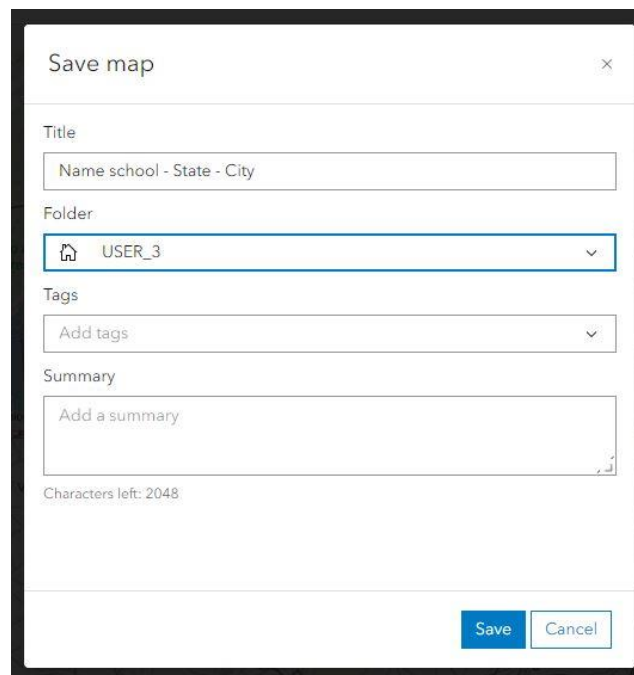
To save the setting, select the *Save* tool.

Upon the first save, you will be prompted to enter a name, which will correspond to the name of the map.



Complete the required information in the save form. Name the map according to the following layout: School Name - State - City.

The map will be automatically placed in the user's personal folder (thus not visible to members of the organization or the working group).



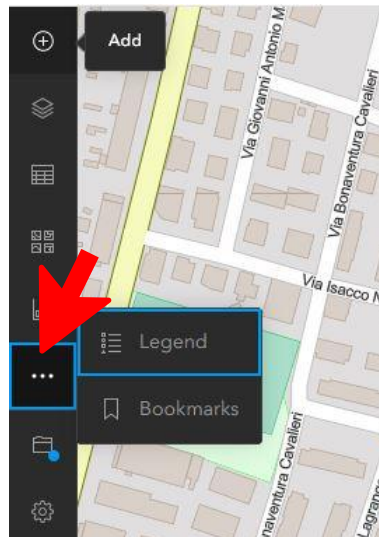
A screenshot of the 'Save map' dialog box. The form contains the following fields:

- Title:** A text input field containing 'Name school - State - City'.
- Folder:** A dropdown menu with a home icon and the text 'USER_3'.
- Tags:** A dropdown menu with the text 'Add tags'.
- Summary:** A text area with the placeholder text 'Add a summary'.

Below the summary field, it says 'Characters left: 2048'. At the bottom right, there are 'Save' and 'Cancel' buttons.

5.2.1 Bookmarks

Bookmarks are used to save a specific working view. Each group of students can create a bookmark to make it easier to find the geographical area within their field of study.



Click on the dot menu to find the Bookmarks tool and open it.

Drag the map and position it in the desired area and zoom level. Enter the name of the bookmark (students group or thematic area) and confirm. Bookmarks can be edited at any time.

5.3 Layer Sketch

In Map Viewer, you can create a **Sketch layer**. A Sketch layer is a container where you can geolocate one or more points by drawing them manually on the map. When creating a Sketch layer, you can add features to symbolize something you want to display on the map. You can also add descriptive information to be displayed in a pop-up when clicking on the feature.



The features in a Sketch layer are saved with the map so that only the user, the map author, can modify and save them.

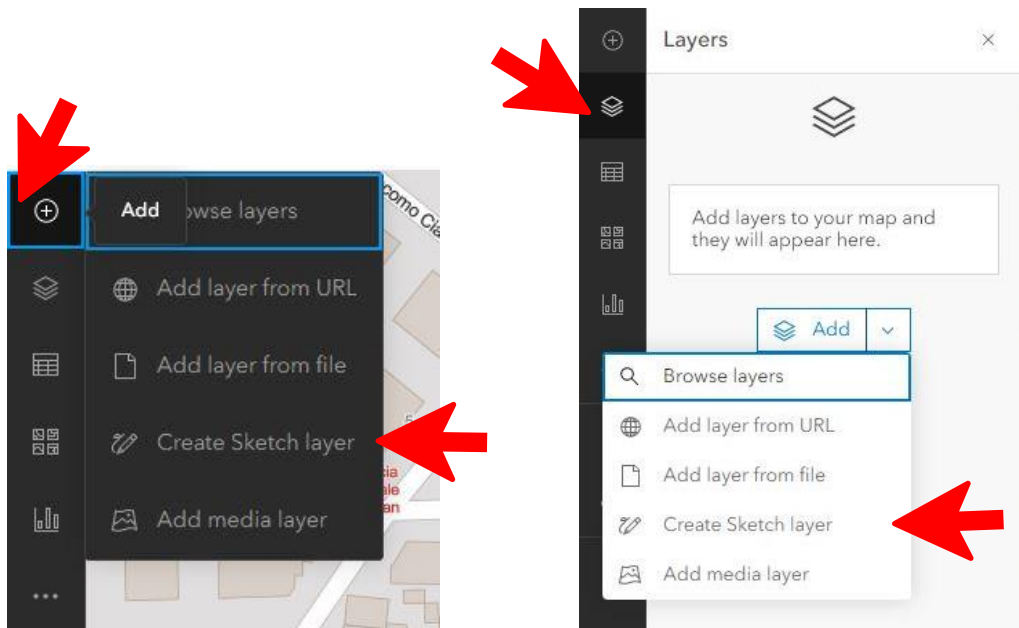
There are six types of sketch tools to add features to the map: Stamp, Line, Polygon, Rectangle, Circle, Text.

A comprehensive tutorial is available: [click here](#).

5.4 Add Layer Sketch

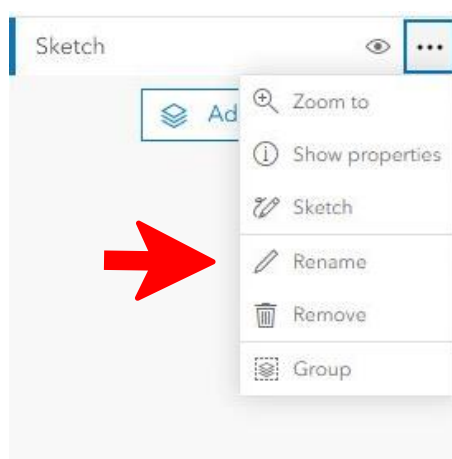
To add Sketch layers to the map, click on **Add**  in the **Contents** toolbar and choose **Create Sketch layer** .

You can also open the **Sketch** pane by clicking on **Layer**  in the **Contents** toolbar (dark on the left). Select the Sketch layer or click **Options**  on the layer and choose **Sketch**.



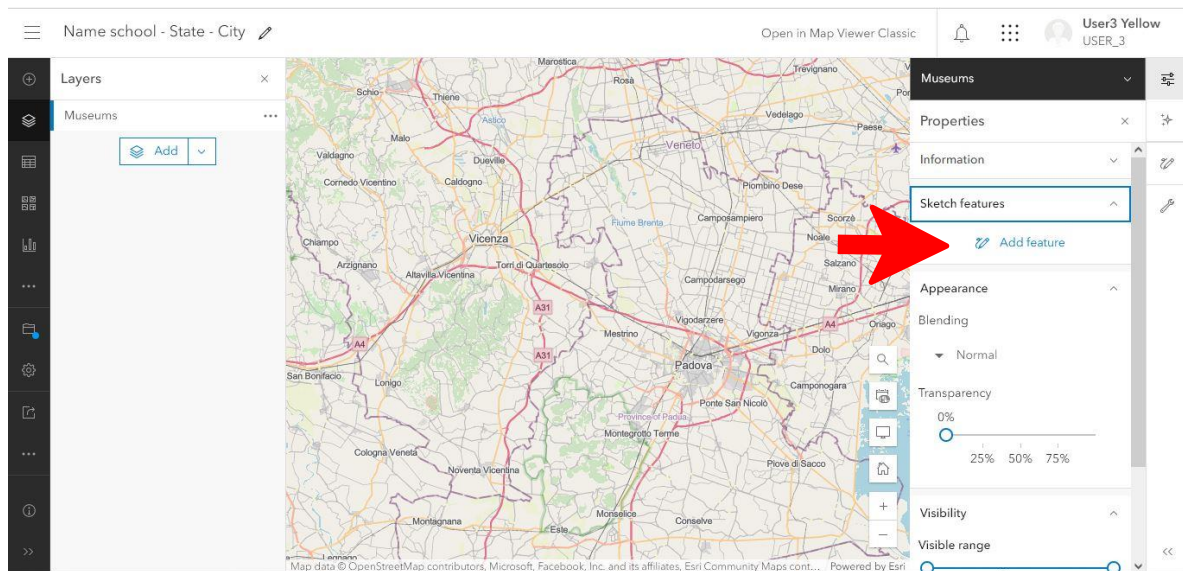
Once a Sketch is added, it will appear in the list of layers.

It is useful to rename the layer according to the category of places that will be added (for example: History, Toponymy, Companies, etc.).

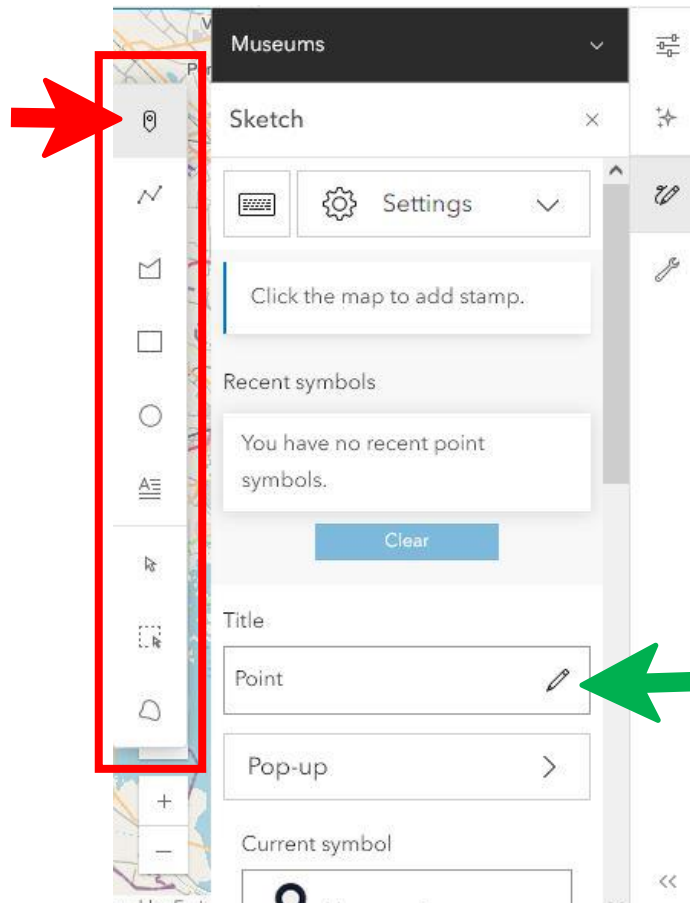


5.5 Add feature to Layer Sketch

To add a feature to the Sketch layer, you can do so from the properties panel that is open on the right.



The tools will be activated, allowing you to locate the point on the map by drawing different types of shapes. The most commonly used tool for educational activities is the first one, *Stamp*, which allows you to insert an icon on the map.



To add a title to the Sketch feature, click on **Edit**  and type a title in the text box (green arrow in the image).

The title of the feature is visible only in the **properties** pane of the Sketch layer (on the right).

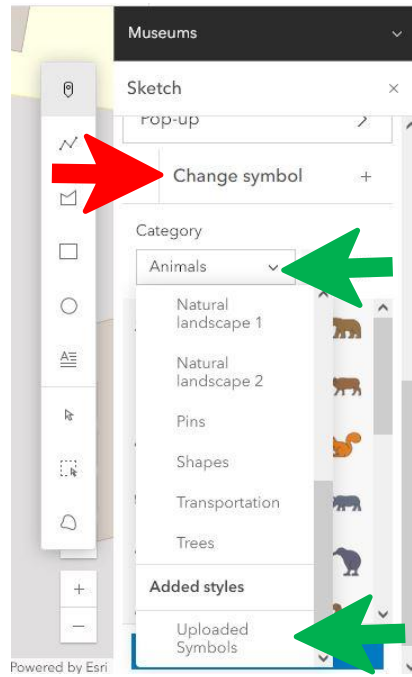
5.5.1 Add stamps to map

It is possible to use symbols to represent points of interest on a map. For example, you can use specific symbols (icons) to represent museums, schools, silk mills, or companies.

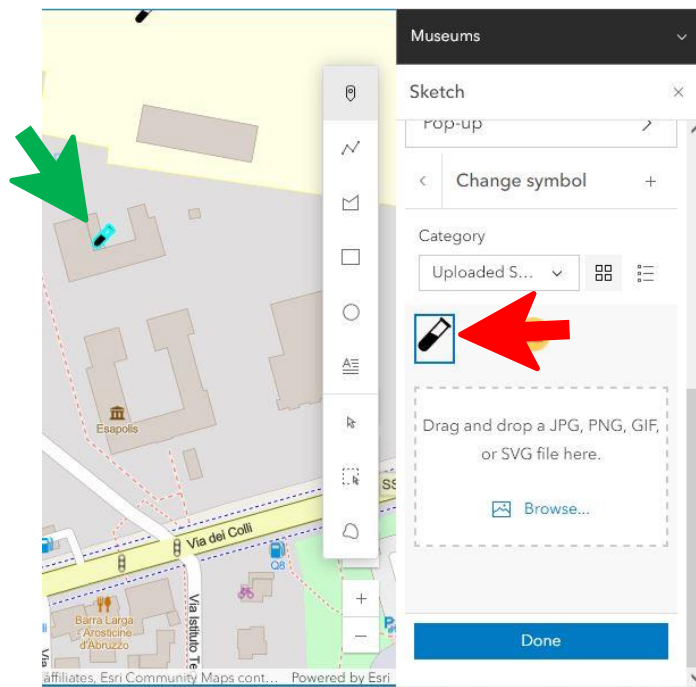
A wide variety of icons are available provided by ArcGIS.

For the ARACNE Project, a set of icons and a list of categories to organize the points will be provided. For each icon and category, dimensions, colors, and all the necessary features will be specified in a dedicated guide for the map layout.

To customize the icons, select the vector in the properties panel under symbol section (red arrow), choose the uploaded symbols and upload the vector icon file .SVG (green arrows).

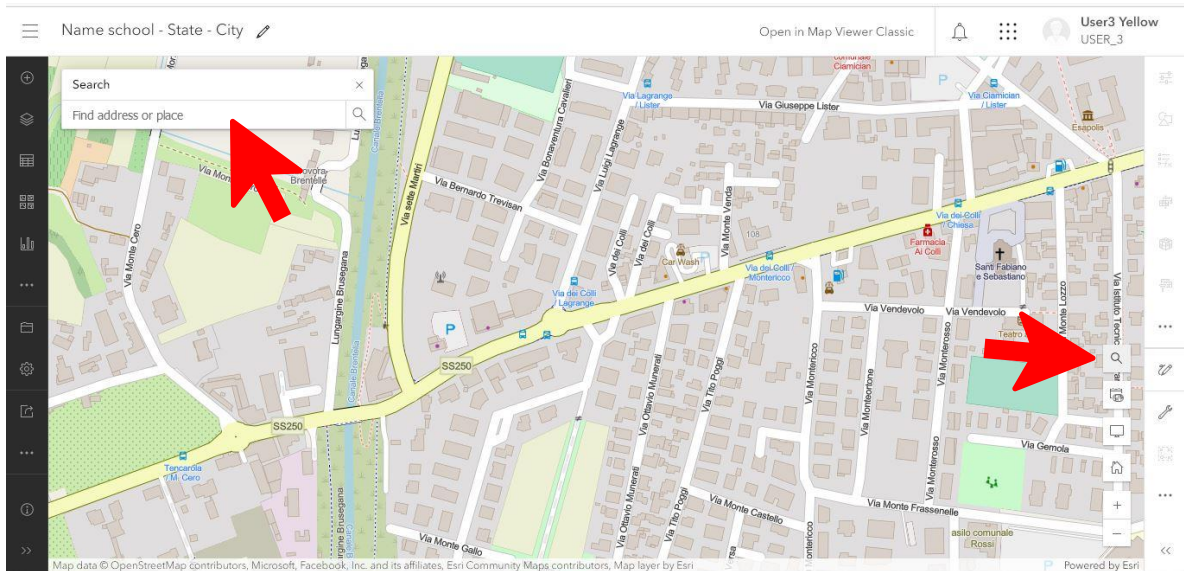


Once the icons are uploaded, select the desired one and proceed to draw it on the map with a simple click on the chosen point.

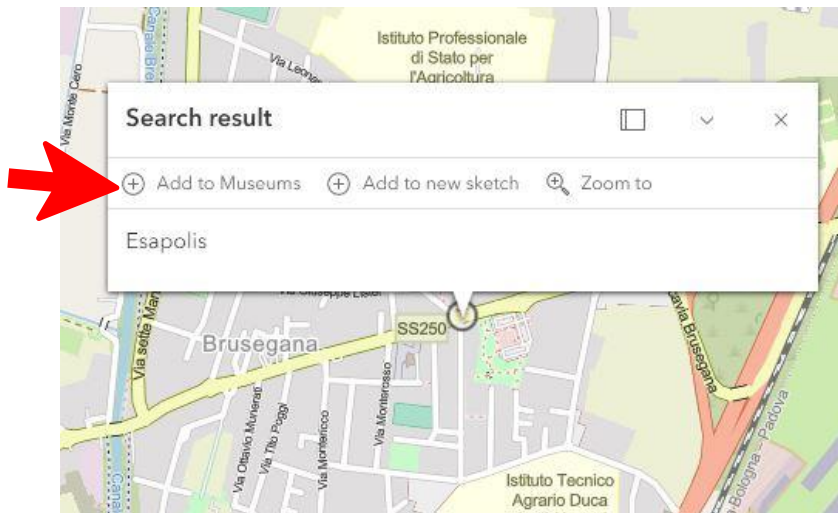


5.5.2 Search address or place

To find an address or a place, you can use the tool at the bottom right and enter the data in the field at the top left.





Once you have located the desired place, you can add it to an existing Sketch layer or create a new corresponding Sketch layer.



5.6 Add pop-up to a feature

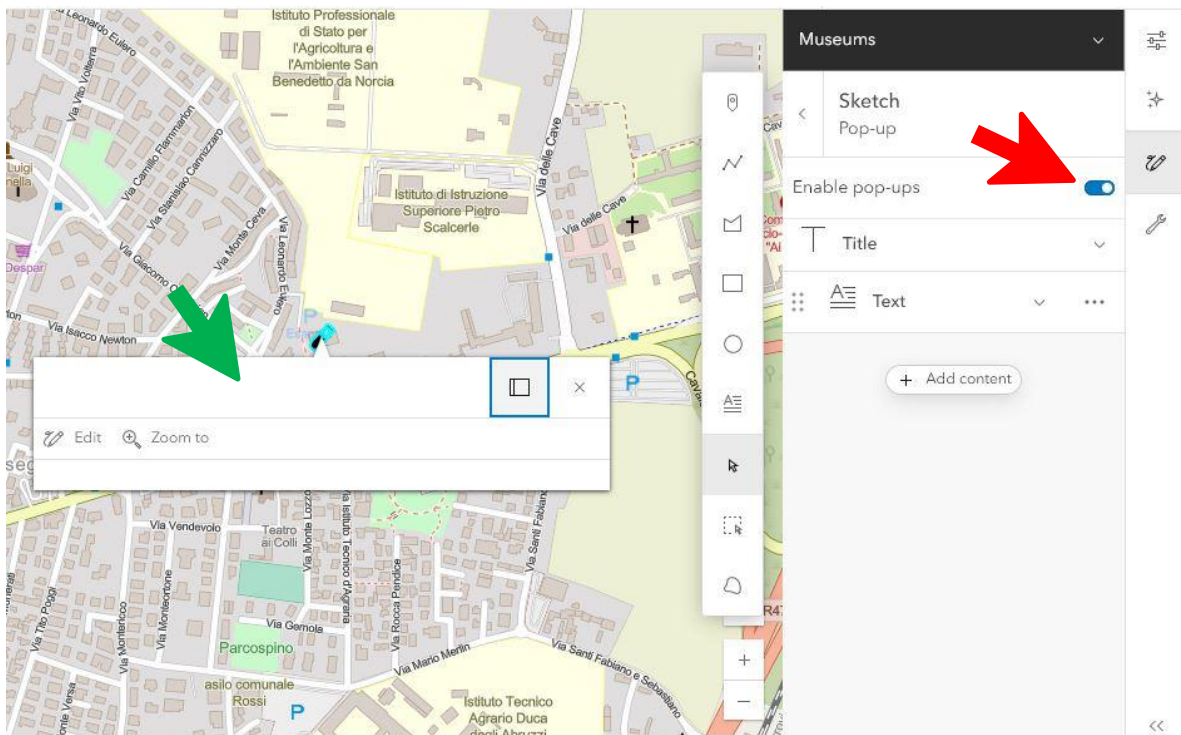
After drawing the point on the map, it's time to create its **pop-up**, which allows for the opening of a small window to insert information and media related to the field research concerning the identified location.

Select a feature on the map by doing one of the following:

- In the **Sketch** pane, choose **Select**  and click a sketch feature on the map.
- In the **Properties** pane, click **Edit**  next to the preview of the sketch feature you want to edit.

The feature is selected on the map.

In the Sketch pane, click *Pop-up* and turn on the *Enable pop-up* toggle button.



Expand the Title section and type a name in the text box that represents the location being geolocated on the map.


You can add two types of content:

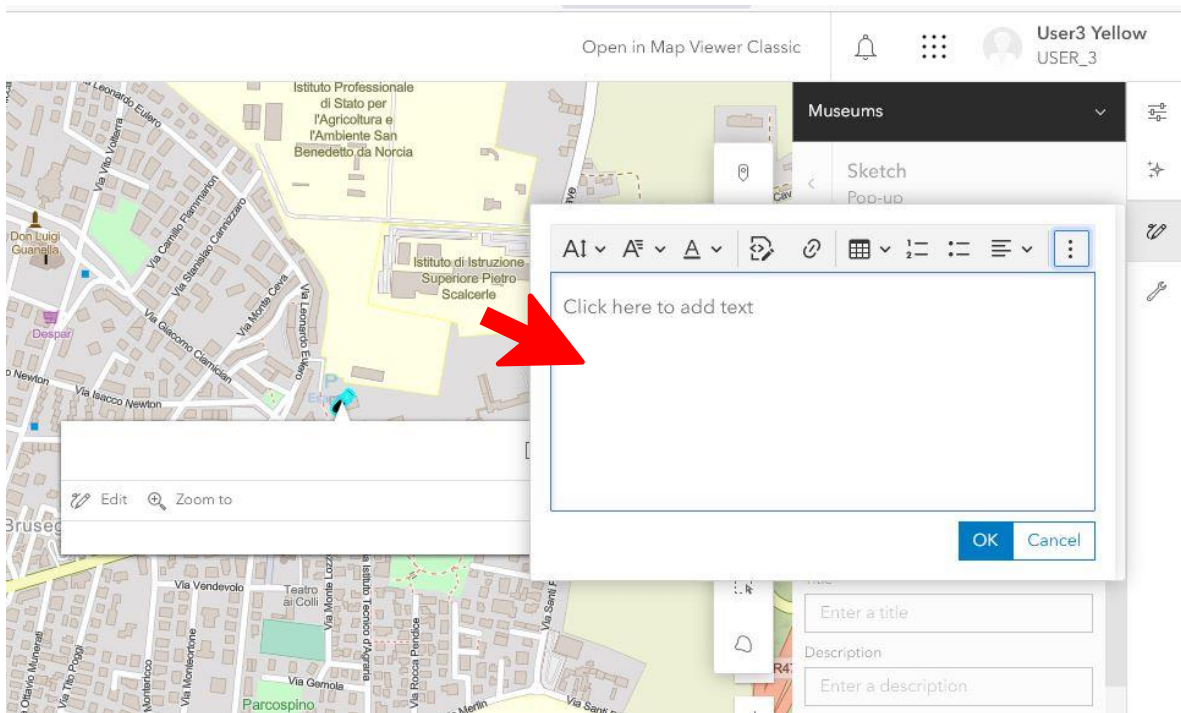
- Text
- Image

It's not possible to directly insert videos. You'll need to add a preview image of the video and link it to the video uploaded to the ARACNE YouTube channel.

Click **Options** *** to delete or duplicate an element.

5.6.1 Add Text

Click the default **Text** element  and type additional information about the feature in the text box. You can hyperlink and format the text. Formatting instructions will be provided in the map layout guidelines.

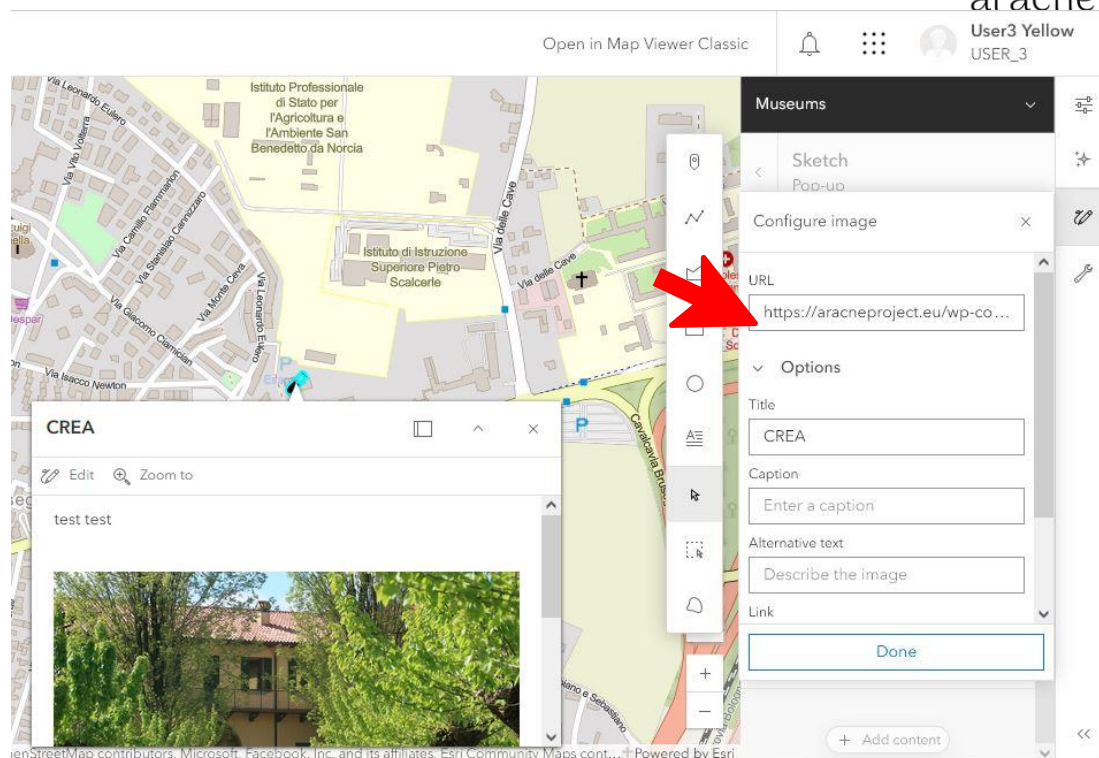


For more advanced users, it's possible to use the HTML programming tool.

5.6.2 Add Image

To add an image to the pop-up, the image needs to be hosted online. So, the image needs to be uploaded to an online gallery (see tutorial *Add image to gallery*) because it requires a URL linked to it.

Paste the URL of the image in the field and complete the other information. It's possible to link a URL to the image (for example, that of a video on YouTube).



6. Share

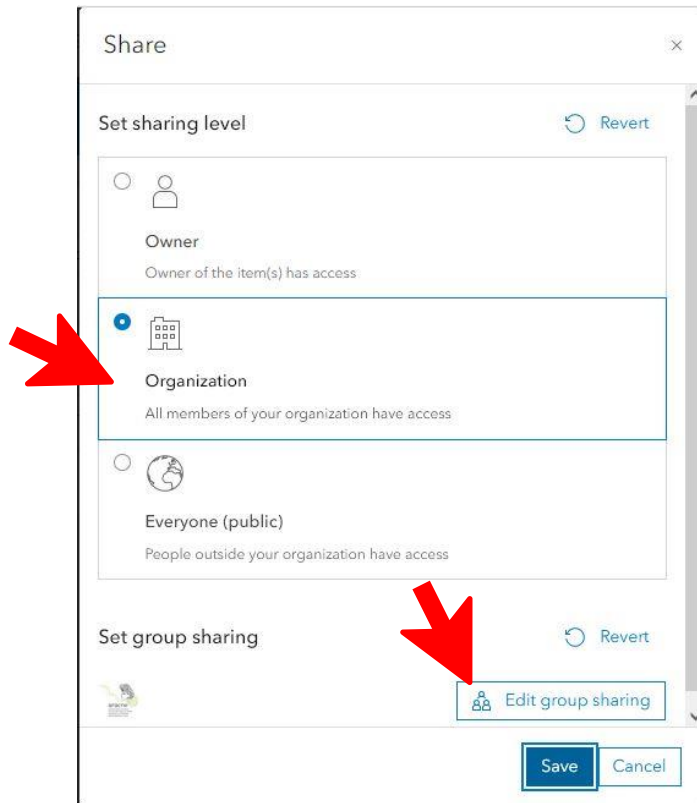
Sharing the results of the work done is essential to allow the merging of maps from all the schools involved in the educational project into a single map of the *European Silk Route*.

6.1 Share map to organization and group

To share the map with the organization and the working group, return to the homepage. Select the *Content* from the top menu. As mentioned in the general overview (4. CREA-AA Organization), here you will find the list of contents produced by the user.


Select the map you want to share and the corresponding *share* box.

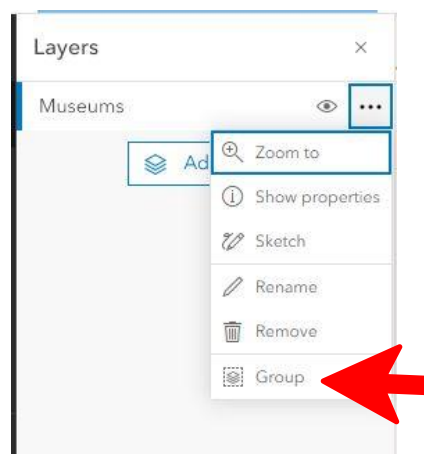
Share with the organization and add the *European silk map – SCHOOLS* group.



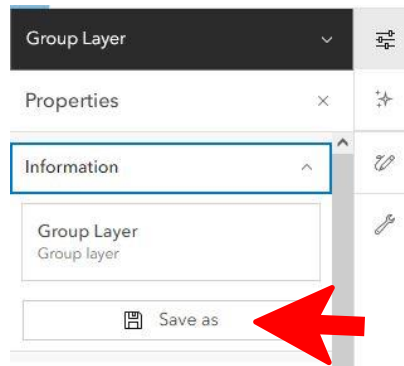
6.2 Share layers

Once the map is finished, to share the layers, they need to be grouped together.

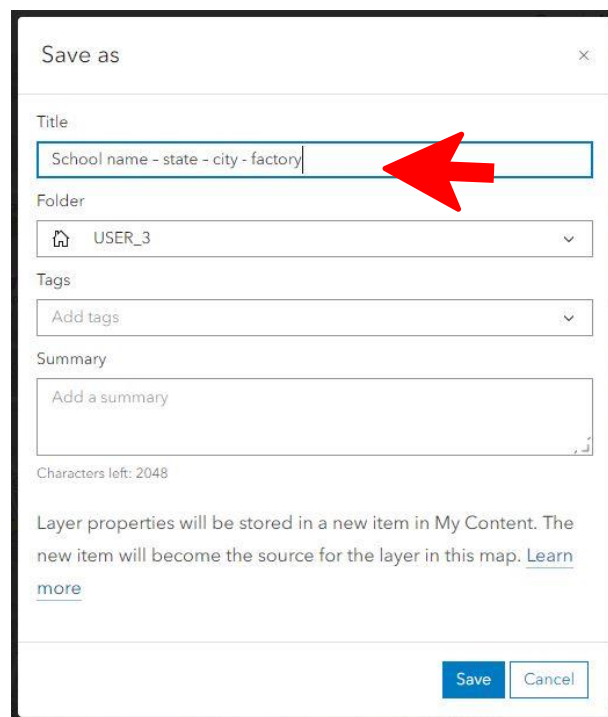
To create a group, open the list of layers by clicking on **Layer**  in the **Contents** toolbar (dark on the left). Select the Sketch layer and click on the three-dot menu icon ******* next to the chosen layer. Then select group.



On the right, the group options panel will open. Select *Information* and save the layer group.



Rename the layer group using the same layout as used for naming the map:
School name - state - city - category.



Proceed with sharing with the organization and the working group as done for the map in section 6.1.