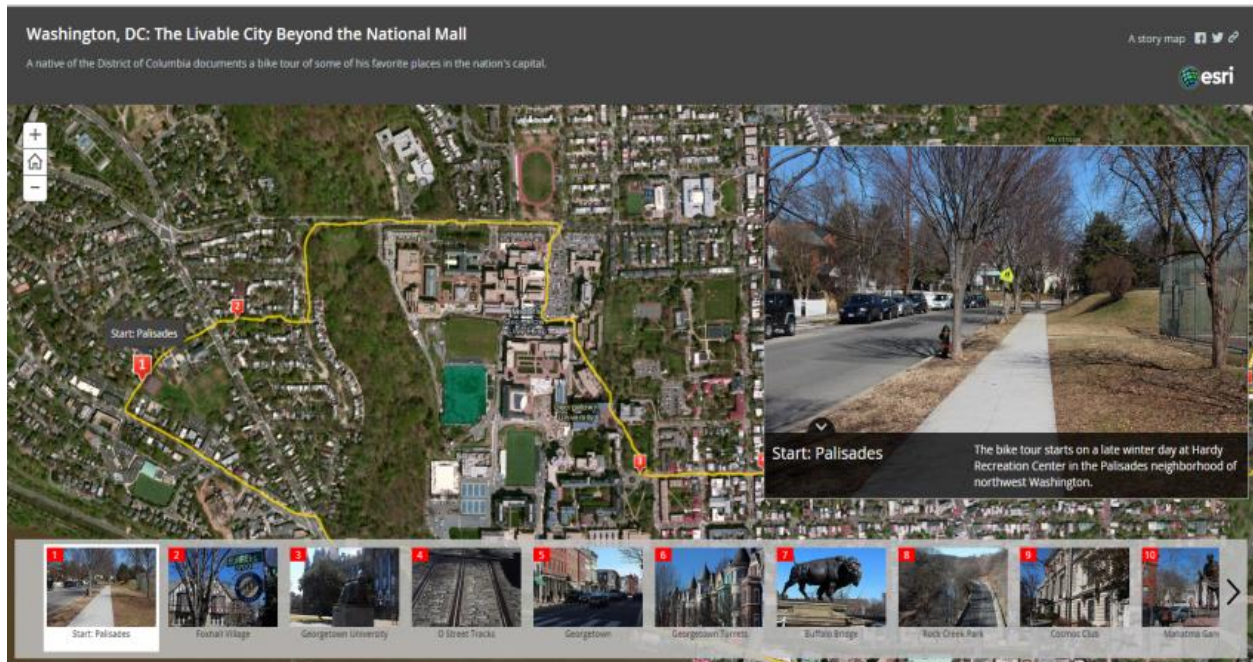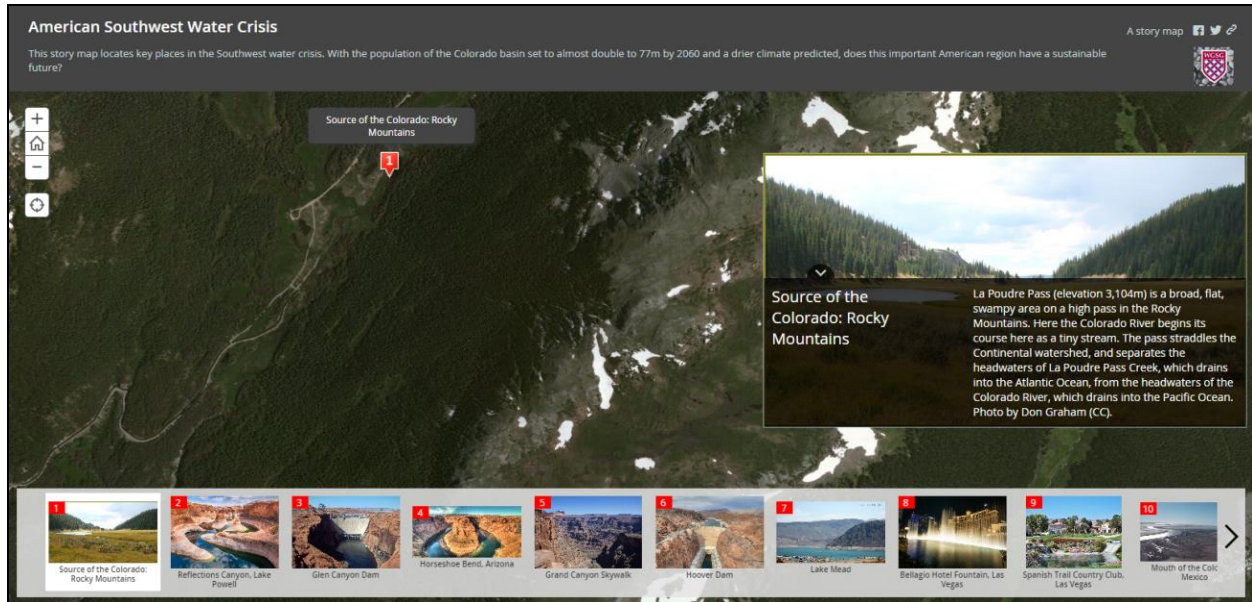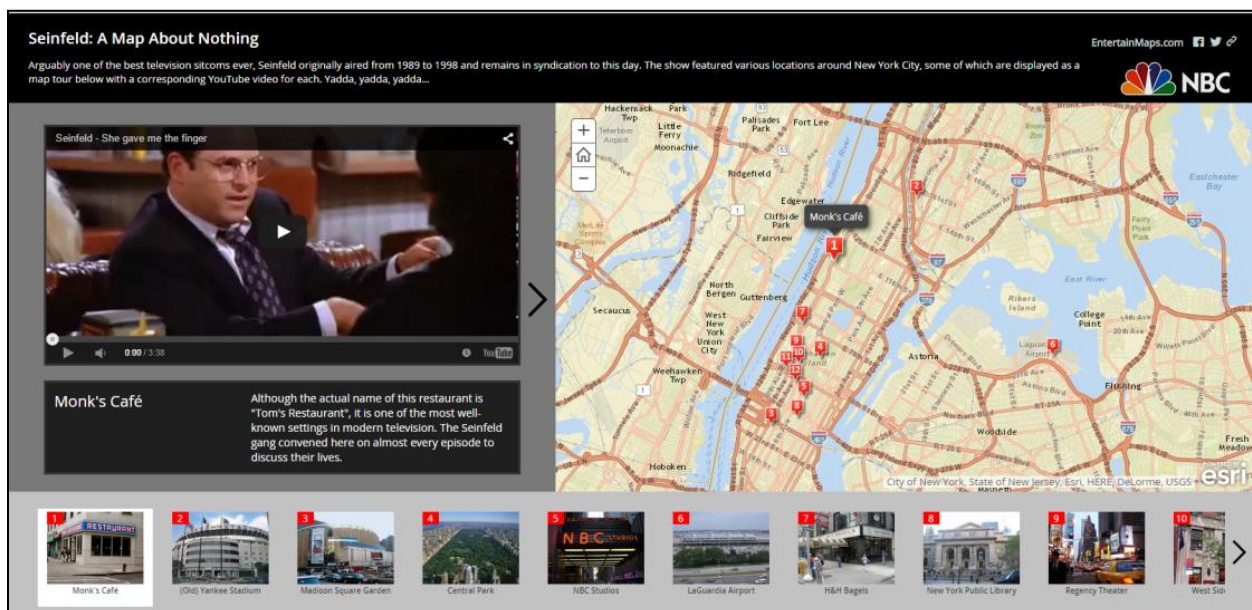# Geospatial Project: Creating a Map Tour / Story Map

The goal of this project is to combine many different geospatial topics (GIS, remotely sensed imagery, georeferencing, and mapping in the Cloud) together into one topic. In this project, you will be creating a Story Map using the resources available on ArcGIS Online. While there are multiple different types of Story Maps, this project will walk you through constructing a type of Story Map called a Map Tour.

The above graphic is a Map Tour showing a bike tour of Washington D.C. By selecting a thumbnail of a picture from the carousel at the bottom of the screen, the map will shift to that location and a larger version of the picture is shown on the right-hand side. Descriptive text is also displayed along with the photos. Map Tours are interactive: You can pan, zoom, etc., just like any Web App.

The second graphic is a Map Tour of locations across the southwest United States and the effect of the water crisis. Map Tours can be used for examining and presenting various environmental issues over the course of a tour.

This third graphic is a Map Tour of famous New York locations that were seen on *Seinfeld* during its run on NBC from 1989-1998. It incorporates photos on the small carousel but videos from YouTube on the main panel. Clicking on a location on the map shows

you a picture at the bottom and then lets you watch a video of a clip from an iconic Seinfeld episode that took place at that location along with contextual information about the location.

As long as you can tie photos and text to a location, you can create a Map Tour out of those photos. To get some ideas of existing Map Tour projects, open your Web browser and go to: http://storymaps.arcgis.com/en/app-list/map-tour/gallery/#s=0&md=storymaps-apps:map-tour

Some Map Tour ideas for projects include a tour of:

- your school's landmarks and highlights.
- your city's historical markers.
- landmarks in a local park.
- local historical statues.
- picturesque places on a tropical island.
- historic bridges in your region's local counties.
- places to visit in your hometown.
- restaurants in your city.
- the top 10 birding locations in your region.
- scenic locations in another country.
- historic locations in your county.
- haunted sites in your county.
- the 18 holes of golf at a local golf course.
- waterfalls in the local region.
- famous locations at a tourist destination.
- historic locations in another city.

Before beginning work on the computer part of the Map Tour, you should first select a topic and decide what text descriptions and photos you want to include. For instance, if you were going to be creating a Map Tour of historic bridges in your local area, you should first figure out which bridges you want to include information about in your Tour, and if there are enough of them nearby to make a good Tour project out of. For this project, 10 sites is a good number of locations to work with.

You should also take an additional photo to use as an introduction to your Map Tour. This will be the first image people see when they open your Map Tour.

Once you identify your topic and the locations you want to include descriptive text and photos (or videos) of, you'll need to go out and take photos or videos of each of your locations or sites. For this project you should do your own photo collecting rather than downloading someone else's pictures off the Internet to avoid any sort of copyright or rights infringement.

After you have your photos and you're satisfied with them, you're ready to actually make the Map Tour itself.

There are several different ways to build your Map Tour depending on your topic, study area, photos, and text. Here are some basic steps to use when building your Tour.

Step 1: Upload your photos for your Map Tour

Before beginning your Map Tour, you should upload your images that will be used. The primary option to use is **Flickr**. You can create a free account at https://www.flickr.com/ and upload your images to the Cloud. Be sure to have this step done first before proceeding with your Map Tour.

In the past, you used to be able to also use **Picasa** for storing your photos, but Google discontinued that service in 2016. However, if you still have photos stored in Picasa they can be used to make a Map Tour. You can also use Google Photos instead of Picasa, but there are extra steps involved – see here for more information: https://blogs.esri.com/esri/arcgis/2016/09/13/story-maps-and-picasa/

Alternatively, if you are using videos for your Map Tour, make sure your videos are uploaded to your own **YouTube** account (which is also free).

Lastly, if your school has access to the Organization level version of ArcGIS Online, you will also be able to directly store your images there. If you are going to do this, don't upload anything right now. Instead you will do that in Step 3.

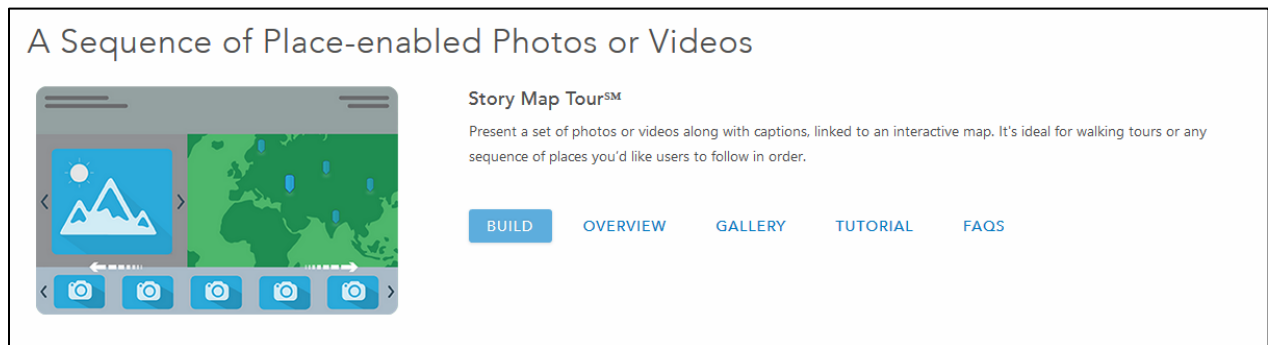*Important note*: For this project, you MUST use one of these sources to store your photos.

Step 2: Log in to ArcGIS Online

Since your Map Tour will be stored online in your ArcGIS Online account, you will need to log in to ArcGIS Online. Go to: https://www.arcgis.com/home/index.html and log in.
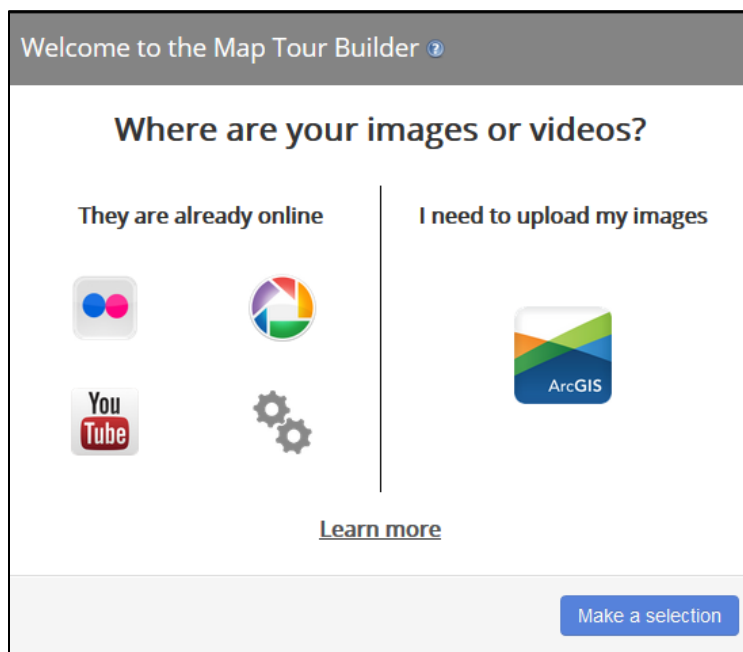
Important note: You will be building your Map Tour entirely using a Web browser through ArcGIS Online and whatever source you are storing your photos or videos. You will NOT be using ArcGIS Desktop, ArcMap, or ArcGIS Pro.

Step 3: Initial settings for your Map Tour

Now you will begin the initial setup of your Map Tour. For the first time you will begin working with your Map Tour, go to the following URL: http://storymaps.arcgis.com/en/app-list/ and choose the option for Story Map Tour, then select **BUILD**.

After you select this, the Map Tour interface will open. The first question you are asked is – *Where are your photos or videos stored?*
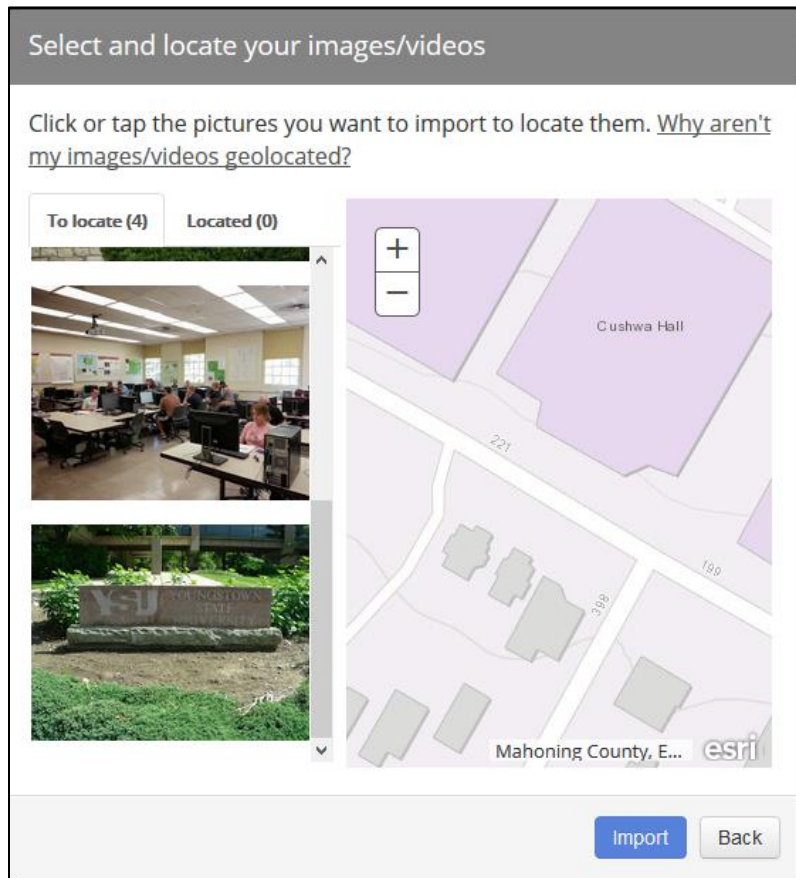

For this Map Tour, if you have already uploaded your photos, choose one of the options under "They are already online." Choose where your photos are stored at (either Flickr or Picasa) or where your videos are stored (choose YouTube).

Otherwise if you will be using the Organization level version of ArcGIS Online to store your photos, choose the option for **I need to upload my images** and follow the instructions for loading them directly into ArcGIS Online.

Step 4: Import and geolocate an initial photo (or several photos)

After you select where your photos are located online (for instance, with Flickr, you will have to enter your user name and the photo set your photos are shared in), you are able to start importing photos into your Map Tour.
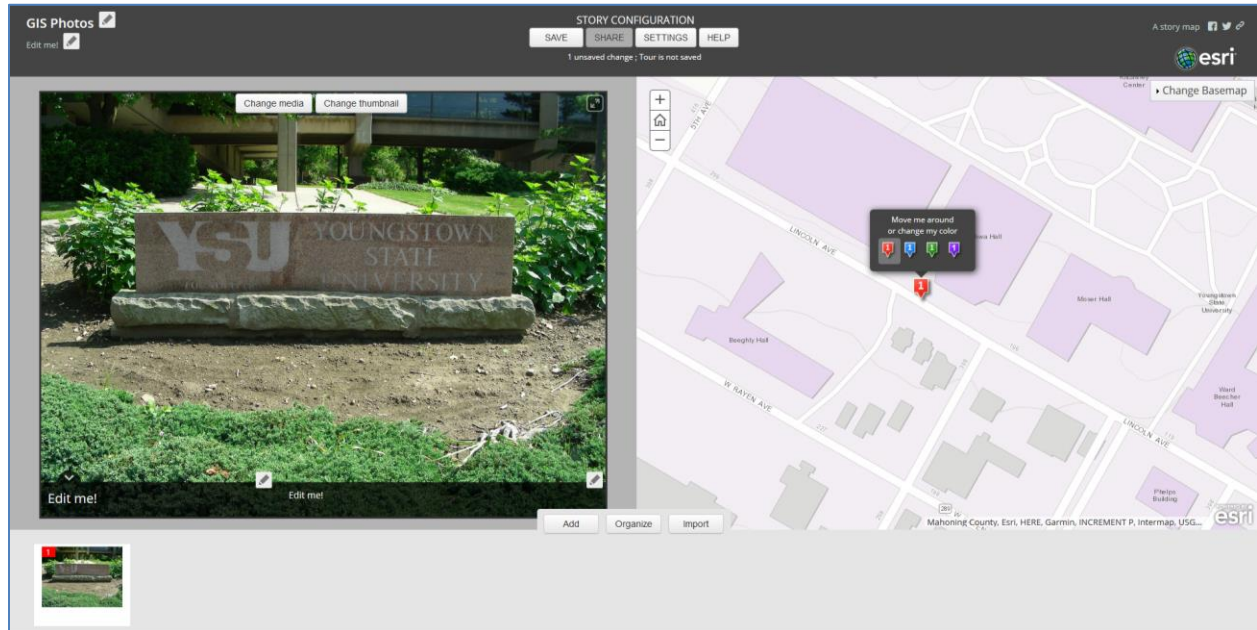

Select the first photo that you want to geolocate from the column on the left. On the right, zoom in on the map to the approximate area that you want that photo to be located. At this point, don't worry if you don't get the photo exactly placed where you need it to be, just get it into the general vicinity (you can move its position around later).

Next, click the photo you want to import, then click the map at its location. When you have the approximate location for the first photo, click **Import**.

You will now be moved into the main Web environment for editing, changing, and building your Map Tour.

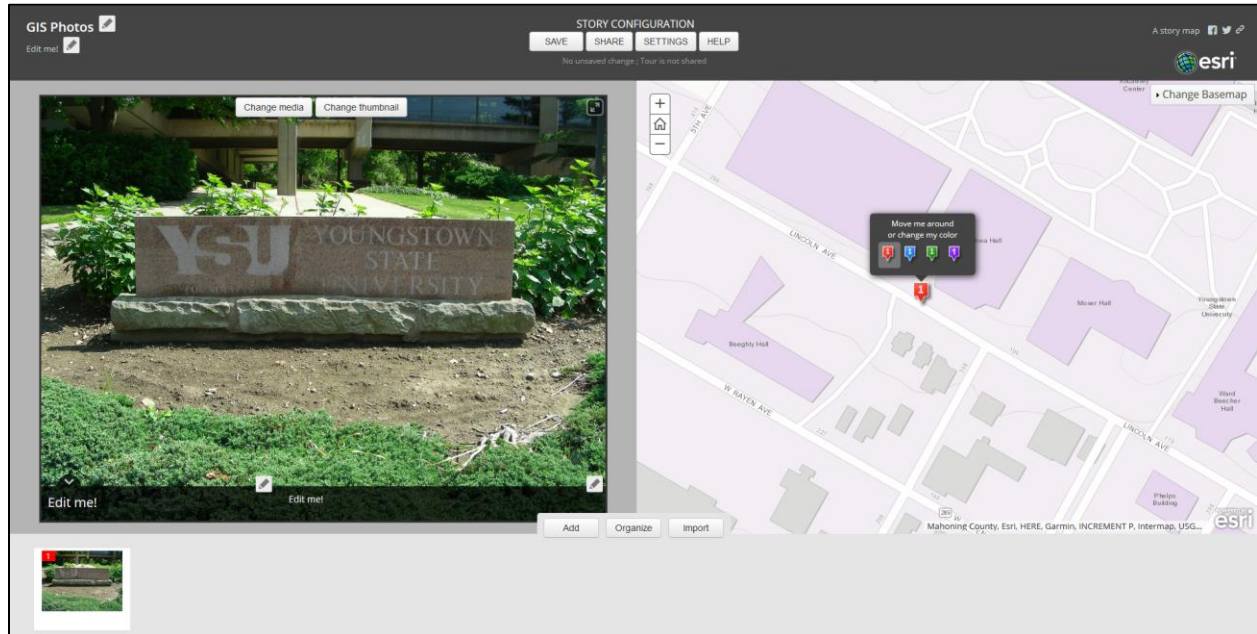**Step 5: Making changes to one location and image in the Map Tour**

With the first location added to the Map Tour (with its corresponding picture), you can start to make adjustments to the location as well as the text that goes along with the image.

On the map section, you can click and drag the point to wherever you want it to go. You can zoom in closer to the image to find a more exact location for the point. You can also change the color of the point (available colors are red, blue, green, and purple).

When you are placing the point, you can also change the basemap to any of the nine available basemaps in ArcGIS Online (such as the Imagery basemap that contains high-resolution satellite imagery) to aid in placing your points.

On the left side, you'll see your uploaded photo with two areas labeled "Edit Me." These can be accessed by clicking on the "pencil" icon that corresponds with them. By choosing the "Edit Me" option, you can add text to the two areas with the photo (a larger title section and a smaller text section).
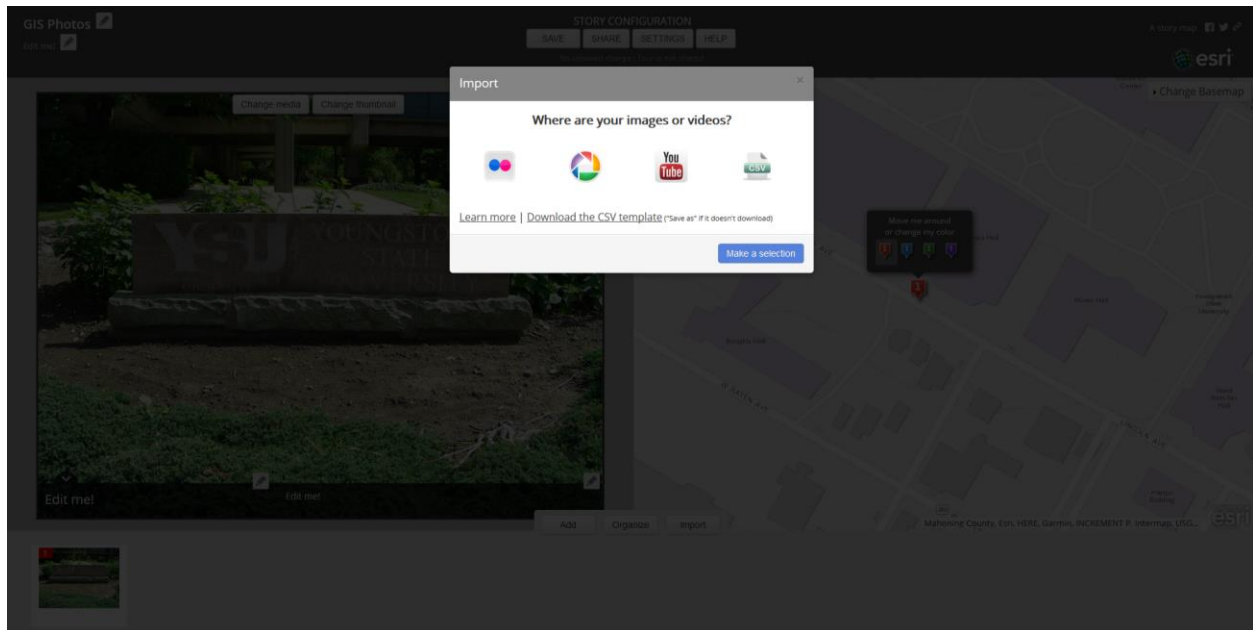
Step 6: Saving your work after editing

After making whatever changes, edits, and text additions you want with the location and picture, be sure to save your changes. Click the **SAVE** button at the top of the Map Tour (a note will tell you how many changes you have made and whether your Tour is saved or not).

I highly suggest saving your work often after making changes to avoid losing any updates or edits you have made.

Step 7: Adding another location and photo to the Map Tour

To add another location (and its corresponding photo) to the Map Tour, click on the **Import** button.

On the next screen, choose the source of your photos.

After selecting your source, follow the same procedure you used in Step 4 to insert your photo at an approximate location and Step 5 to adjust to the proper location as well as making the edits you want.

Be sure to save your work again like in Step 6. Repeat this whole process to get the rest of your locations and photos properly set up.
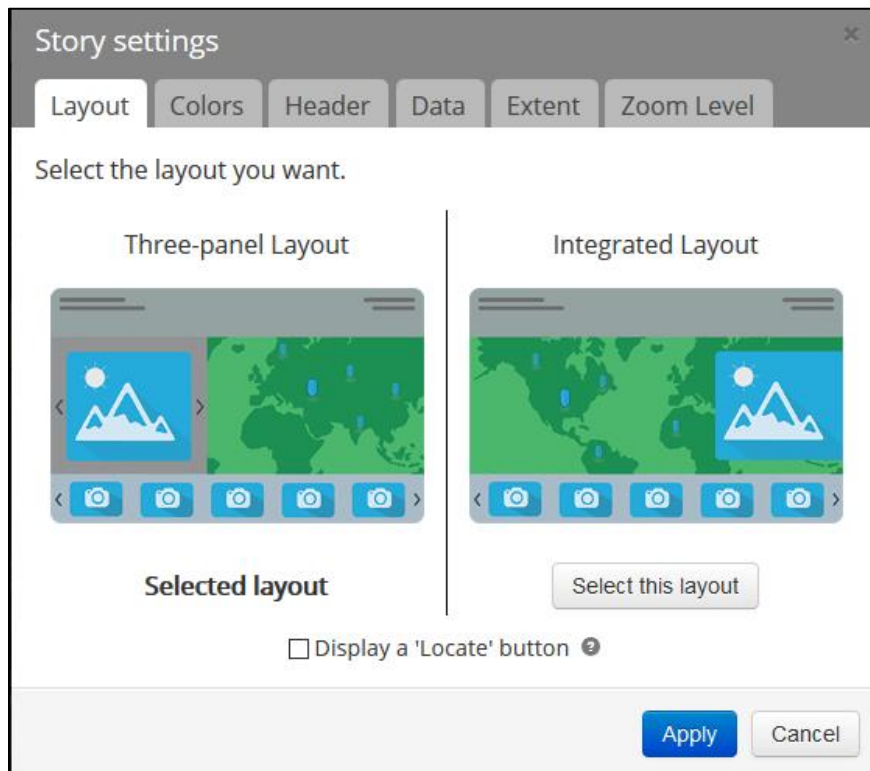
Step 8: Customizing your Map Tour

After you have all of the locations in their proper places with the corresponding photos, you have several more edits to make as well as many ways to customize your Map Tour:
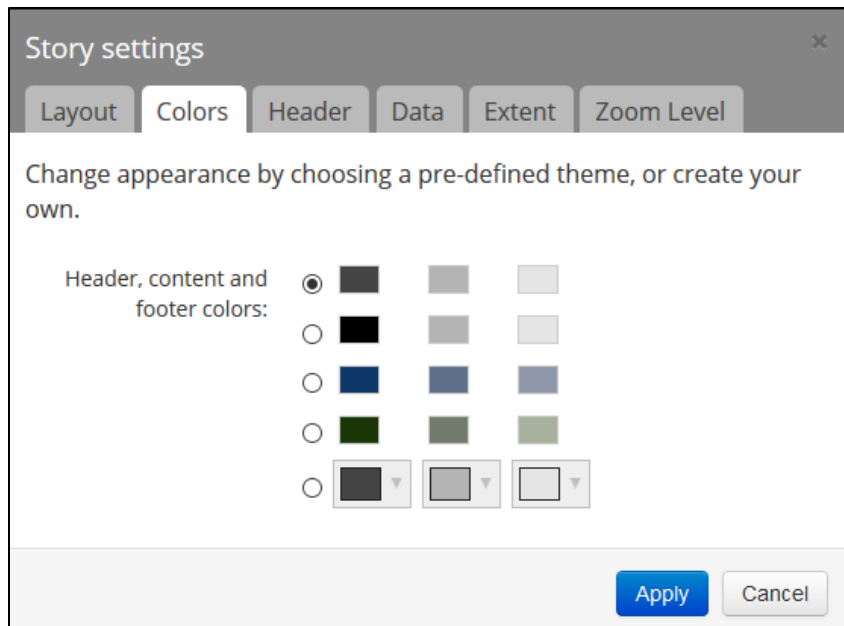
- In the upper-left corner of the Map Tour are places you can edit the title of the Map Tour, as well as some descriptive text about the Map Tour itself.
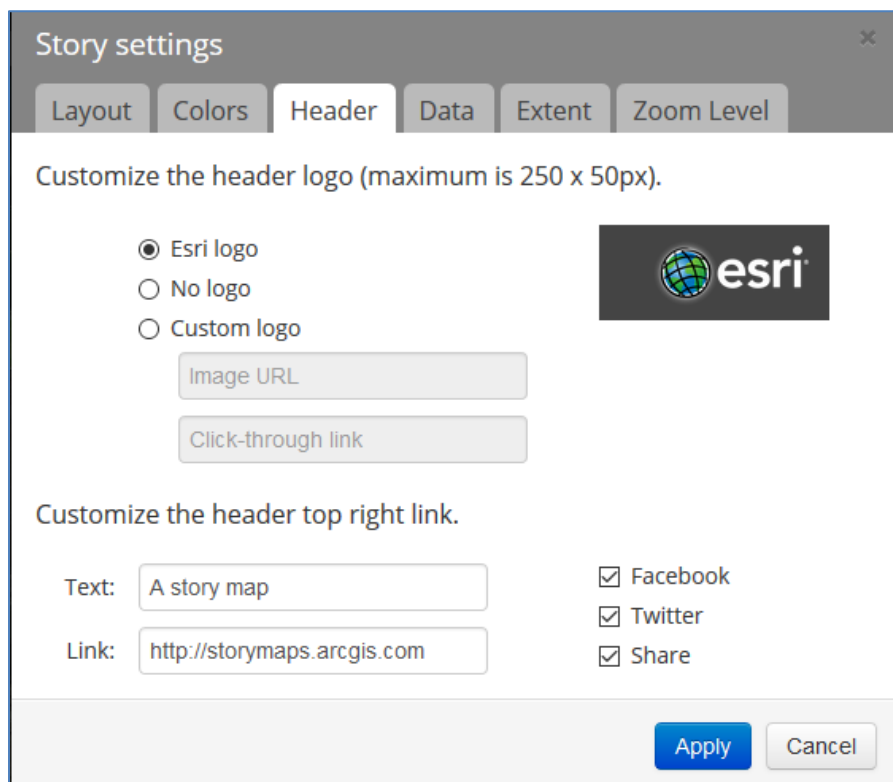

- Under Story Configuration, pressing the **SETTINGS** button will allow you to make many changes to the overall look and feel of your Map Tour to personalize it.
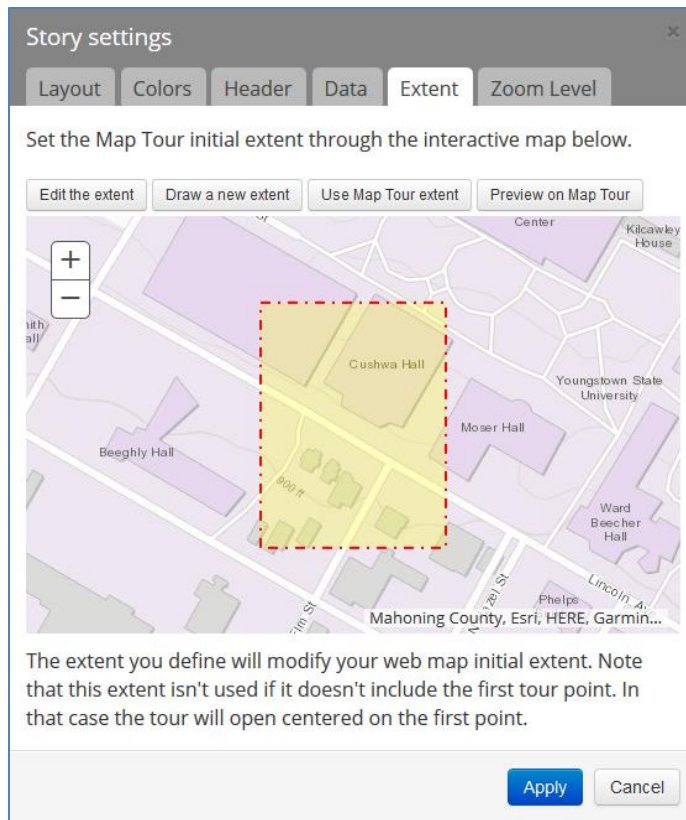

- For example, under the **Layout** tab, you can choose which version of the Map Tour you wish to create, a Three Panel Layout or an Integrated Layout. You can also choose to display a Locate button or not.
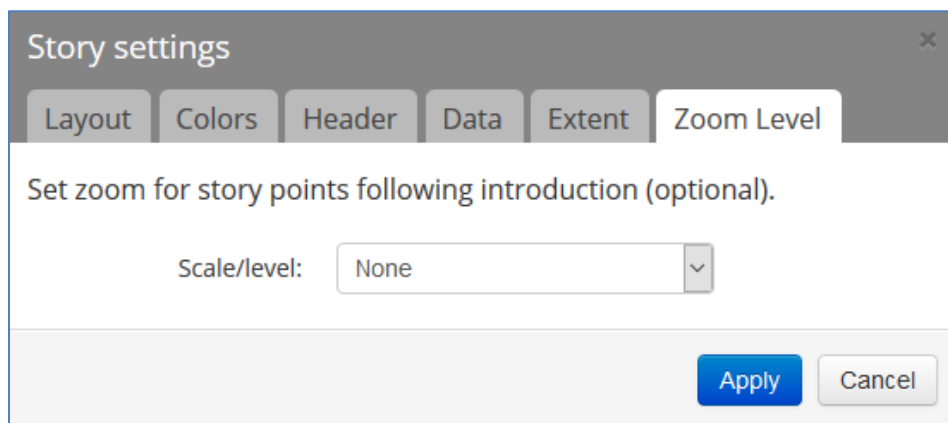
- Under the **Colors** tab, you can choose different color schemes for the Map Tour's appearance.
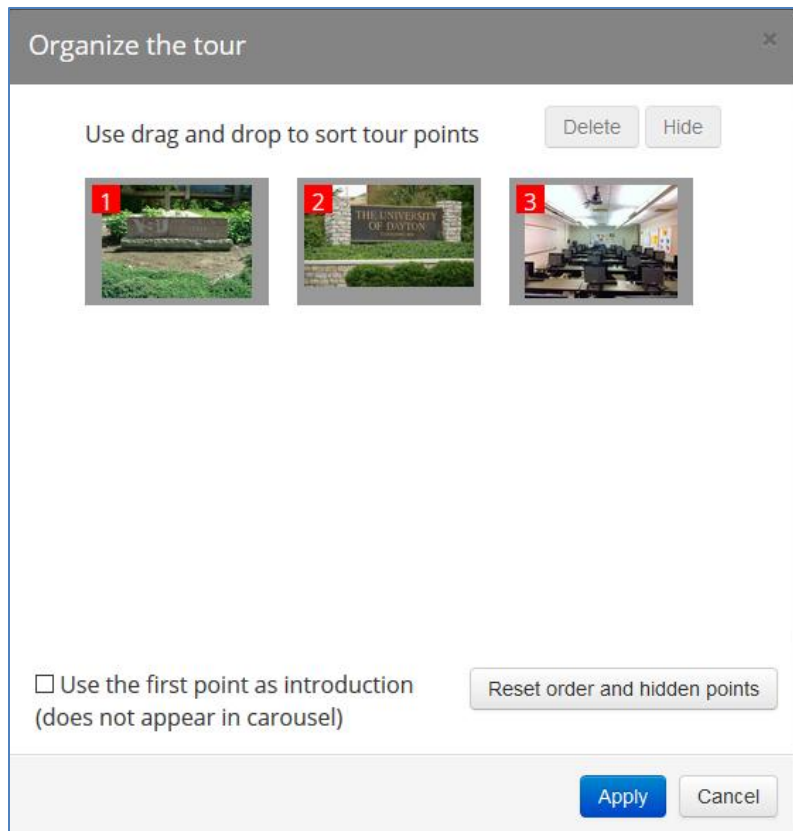

- Under the **Header** tab, you can select which options you want to appear on the Map Tour, such as the Esri logo, the look of the header, or even your own custom logo (such as for a local business, a national park symbol, a theme park design logo, etc.).

- Under the **Extent** tab, you can customize which areas are shown in the Map Tour when a location is selected.
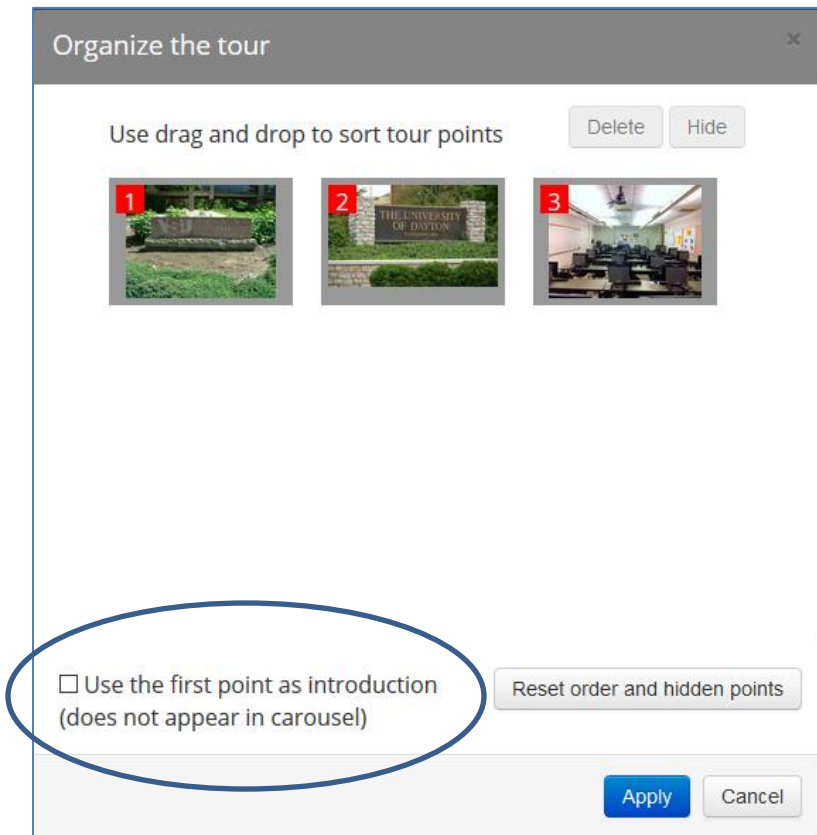

- Also, the **Zoom Level** tab will allow you to properly set the scale used in the Tour. Use these settings to ensure that your Map Tour shows only the local areas you want and not an entire state or country. When using the Zoom Level, keep in mind that a large scale map will show a smaller geographic area and a small scale map will show a larger geographic area.

- Another option for customization can be accessed by pressing the **Organize** button. This will allow you to drag and drop your photos to rearrange the order of the locations (i.e., which location is labeled as 1, which location is labeled as 2, etc.). You may want to use this option if you are presenting your Tour points in order (such as a walking tour of a historic neighborhood, or a delivery route of a mail truck, or the route taken by a bus tour of an area). You can also use this option to specify that the first location simply serves as an introduction and is not available as a clickable location in the carousal of thumbnail images.

- If you find you need to add more locations and images to your Map Tour, press the **Import** button and follow the same procedures as Steps 4 and 5 to insert, align, and edit your new locations and photos. You can then use the options under the **Organize** button to rearrange the order to the Tour locations.

- You will also want to make one of your slides an introductory slide – note that this will not be a location or a point to click on but a different starting slide, something to introduce users of your Story Map. To do so, click the **Organize** button, move the introductory slide to the first slide in the slide carousel, and place a checkmark in the option for **Use the first point as introduction (does not appear in carousel)**. Thus, the introductory slide will show up when your Map Tour is first opened but will not be a clickable point.
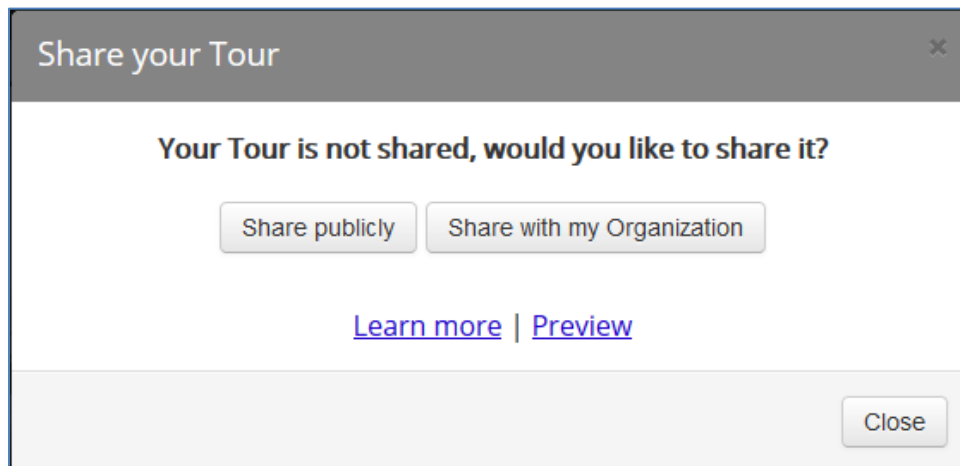

- Be sure to save your work after making edits, reorganizations, and other customizations.
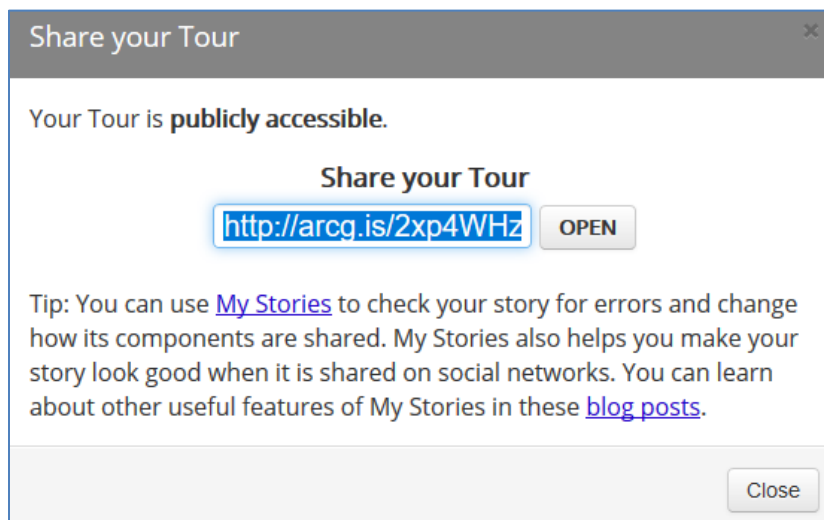
Step 9: Sharing Your Map Tour

When you have your Map Tour completed, press the **SHARE** button and choose to **Share publicly** in order for everyone to be able to access your Map Tour.

Note that prior to sharing your Map Tour you can always Preview its appearance as to how it will look by pressing **SHARE** and then choosing the **Preview** option before sharing it.

The Preview mode will show you what the final product looks like. You can always close the Web page that appears from the Preview (it will open in a new tab in your Web browser) and return to your Map Tour to continue customizing it before sharing a final product.

After you Share Publicly, you will receive an abbreviated URL. This is the URL that you can use to access your Map Tour at any time to view it from a Web browser.

This short URL (that begins with **arcg.is**) is what you will email to your instructors to submit your final Map Tour.