

**Notes from Geospatial/GIS Meetup
August 1, 2023**

Rivera Library, Room 140 and Zoom

Attendees: Janet Reyes, facilitator

In person: Isaiah Kim, Siddharth Kishore

Via Zoom: Bart Kats, Bennie McGhee, Gerald Winkel, Jay Spencer, Mike Cohen, Sarah Simko

Announcements

This meeting was recorded; video is available [here](#). The passcode to view is =BW%W7j3

A new workshop, [Introduction to Aerial Photo Interpretation](#), will be offered by UCR Library on Tuesday, August 29 at 2:00 pm.

For those who created **tools in ArcMap** using Python 2 and are concerned about having the same capabilities in ArcGIS Pro, Esri has provided [this guidance](#). We will have more discussion on switching from ArcMap to ArcGIS Pro at the September 21 meetup.

Shared links

Prof. Susan Straight's updated "A Library of America" StoryMap:

<https://storymaps.arcgis.com/collections/997b82273a12417798362d431897e1dc>

Presentation

In the first part of our "presentation" session, Janet reviewed some [takeaways](#) from the 2023 **Esri User Conference**. Products and features discussed included ArcGIS Online, StoryMaps, 3D in ArcGIS Pro, Living Atlas of the World, Imagery, Experience Builder, and Dashboards. Refer to the linked document for details.

Janet then previewed some content and examples from her upcoming photo interpretation workshop.

A map is a representation of selected ground features, but an aerial photo captures all of the features visible in a top-down view. We discussed information that could be extracted from an aerial photo of a large city block in Riverside: buildings and building types, open space, trees, impervious surface, swimming pools.

There are numerous use cases for photo interpretation, including history, such as how UCR researchers used historical photos to search for old homesteads near Joshua Tree.

The main tasks for a photo interpreter are to: identify a feature, decide what category it belongs in, map the feature as a point, line, or polygon, and (often) characterize some of the features' attributes.

Airphoto signatures are the characteristic appearance of a ground feature, or collection of features, on a given type of imagery. Components of a signature include pattern, shape, size, color, shadow, and proximity. In addition to these elements, it's also useful to know the geographic location and the characteristics of the imagery itself (e.g. date acquired).

Examples we looked at included: an airfield, a golf course, the distinction between apartments and single-family residences, parking (on ground as well as rooftop), cemeteries, vacant vs. agriculture, multiple use, land/water boundaries at the ocean and in tidal areas, and changes over time (plantation trees, vacant areas prepped for development).

Janet suggested that, depending on interest, a series of workshops regarding photo interpretation could be offered. Angles could include different topic areas, developing photo interpretation skills in support of image processing/deep learning, and how to set up a mapping project that uses photo interpretation.

The library may host a [mapathon](#) around GIS Day in November, in which participants would delineate structures from aerial photography of under-mapped, underserved areas of the world. Again, depending on level of interest, we could also get a group together to work on a campus-related or local mapping project.

Discussion

Mike asked about the credits consumed when using ArcGIS for geocoding street addresses. Janet didn't know offhand how many credits that consumes, but a new feature allows the user to see how many credits a particular activity will consume prior to running it. **Update:** [more information on credit usage](#). Per this documentation, 40 credits are consumed per 1000 geocodes using ArcGIS World Geocoding Service.

Siddarth said that IPUMS provides a free-to-use [geocoder](#).

Update: other free geocoders are [Geocoder](#) from Texas A&M, and [Geocodio's free option](#) (2500 lookups/day). QGIS also has the [MMQGIS plugin](#) that will perform geocoding.

Mike had difficulty finding the Zoom annotation feature on an iPad. In the chat, **Bart** shared this link that may help: <https://help.isit.ucsb.edu/hc/en-us/articles/360043171552-Accessing-and-Using-Annotation-Tools-in-Zoom-iOS>

Mike mentioned the value of access to oblique imagery in supporting the interpretation of vertical aerial imagery.