

Notes from Geospatial/GIS Meetup

November 10, 2021

via Zoom

Attendees: Janet Reyes, facilitator;
Via Zoom: Amanda Grey, Bart Kats, David Biggs, Gerald Winkel, Jorge Aponte Gomez, Joseph (Jay) Spencer, Qingfang Wang, Salvador Jr Olguin, Steve Ries

Announcements

This meeting was recorded; video is available [here](#). The access passcode to view is D?jEv73f

Esri's next [GIS in Higher Education Chat](#), at 9:00 am on Tuesday, December 7, will cover the usage of Arcade expressions.

[UC GIS Week](#) will take place November 16 - 18. [Registration](#) is free. Five UCR affiliates will be among the presenters:

- Tuesday, Nov 16, 1:40 pm - Yaning Miao from Environmental Sciences will speak on public health concerns in the Coachella Valley.
- Wednesday, Nov 17, 11:30 - 12:00 - Akanksha Garg and Samriddhi Singla from CSE will give back-to-back presentations regarding remote sensing/satellite data.
- Thursday Nov 18
 - 11:40 am - Amr Magdy from CSE will speak on scalable spatial data science.
 - 1:40 pm - Nic Barth from Earth & Planetary Sciences will present on creating virtual field trips.

Events of particular interest to students include a lunchtime student networking opportunity on Tuesday, and a career panel in the afternoon on Thursday.

Janet recently acquired from UCSB several **aerial photo flights** over portions of Riverside and San Bernardino counties from the late 1940s to the late 1950s. After processing, these will fill in a time gap in the library's [existing aerial photo coverage of the Inland Empire](#). A few years ago she also acquired several flights of our area from the 1990s; these also remain to be processed.

Updates to the [Geospatial/GIS Quarterly](#) include a link to watch the caption-corrected recording of the Geospatial/GIS Faculty panel held at the October meetup, and a list of geospatial-related courses being offered in Winter 2022.

First-time Attendees

None!

Presentation

David Biggs is a History professor at UCR with a special interest in historical cartography, GIS, and environmental history. David presented on Decolonization Wars, Reference Systems and the Ever-Shifting Map of Indochina, which was part of his research for the book [Footprints of War](#). The talk focused on the importance of maps and aerial photos in understanding the decolonization period of Vietnam after World War II, using the coastal area where the city of Hue is located as an example.

Japan had occupied Vietnam during World War II. With their surrender, the Allies moved in and divided the country into North and South Vietnam. During this period the French tried to reassert the control they'd had over Vietnam prior to World War II. In 1947 the French invaded to occupy Hue and its coastal environs, but resistance prevented them from taking the hills and mountains further inland.

In looking for contemporaneous maps of this area, David searched in the National Archives and found that Americans had flown aerial photo missions as early as 1943 for purposes such as planning bombing runs. The image retrieval process involved identifying 1-degree squares of interest on microfilm and placing sticky notes on the projected image. The photos themselves were on scrolls that needed to be viewed on light tables.

David brought some of the imagery into a GIS to enable comparisons of the landscape over time. As one example of the "footprints" idea, the site of a small Japanese airstrip became a US Marine airfield in the 1960s; the area is now an industrial park. He also noticed that the location and presence of hedgerows between private property in villages had changed very little over time.

With the rise of Communist China in the 1950s, the US became concerned about communist takeover in the region and supplied the French with surveillance planes, cameras and technology left over from World War II. The US and France collaborated on creating a new topographic map series of the area using the new aerial photography over the coastal region as a source. (In this map series the UTM grid being adopted by the US Army was superimposed on the grid that had been previously used by the French.)

Mapping the highland areas remained mostly guesswork. Place names on the maps reveal the extent to which ethnic Vietnamese had control of the territory. The resistance took advantage of being "off the map" when planning wartime strategies.

Discussion

Bart asked if the properties in the villages tended to change ownership, or if they stayed in one family over time. David said families have strong roots in particular villages, going back centuries. During wartime families often had members on each side, which was useful in preserving family interests depending on which side held local control at a given time. Recently, the young people have been leaving the villages, which are now essentially populated by old people. With industrial and agricultural changes and pressures on top of the demographic change, the villages may not last more than a generation.

Qingfang asked whether there is any danger in the fields from chemicals, unexploded bombs and the like. David replied that since this area is intensely managed, there is little unexploded ordnance. One of his main interests in research is chronicling the resilience of communities impacted by war, one aspect of a field known as “spatial dialectics.”

Jorge asked about whether the villagers experienced famine, or if their method of agriculture was enough to sustain them. David said that the Japanese occupation triggered a famine in the area in 1944. There essentially haven’t been famines since then, mostly because people have left the region.

Jay asked whether schools and other educational facilities could be identified on the photos over time, and whether the location of educational land use tended to move. David said that schools were difficult to distinguish on aerial imagery, but government records documented the location of schools over time. Where revolutionary forces had established schools or hospitals in the highlands, they often hid or camouflaged such facilities to avoid detection from the air. Also, often the subsequent government chose to build new schools in the same location as previous schools.

Map sharing

- Mapping Police Violence: <https://mappingpoliceviolence.org/>
- Aerial Archaeology Mapping Explorer (for England): <https://historicengland.org.uk/research/results/aerial-archaeology-mapping-explorer/>