

New Orleans mississippi river exploration from extensive archive of USGS Historic Topo Maps

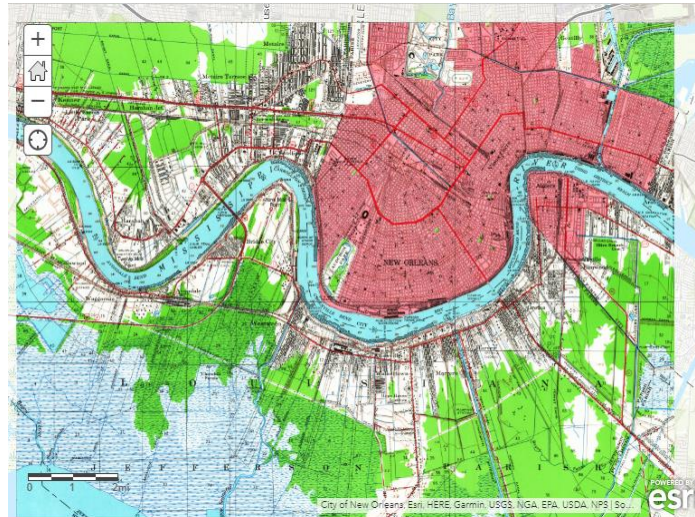
Nicolas Vuille-dit-Bille

Exploration on 3 maps with different timelines:



Historical map

- New Orleans (1891)
- Scales: 1:62500



Historical map

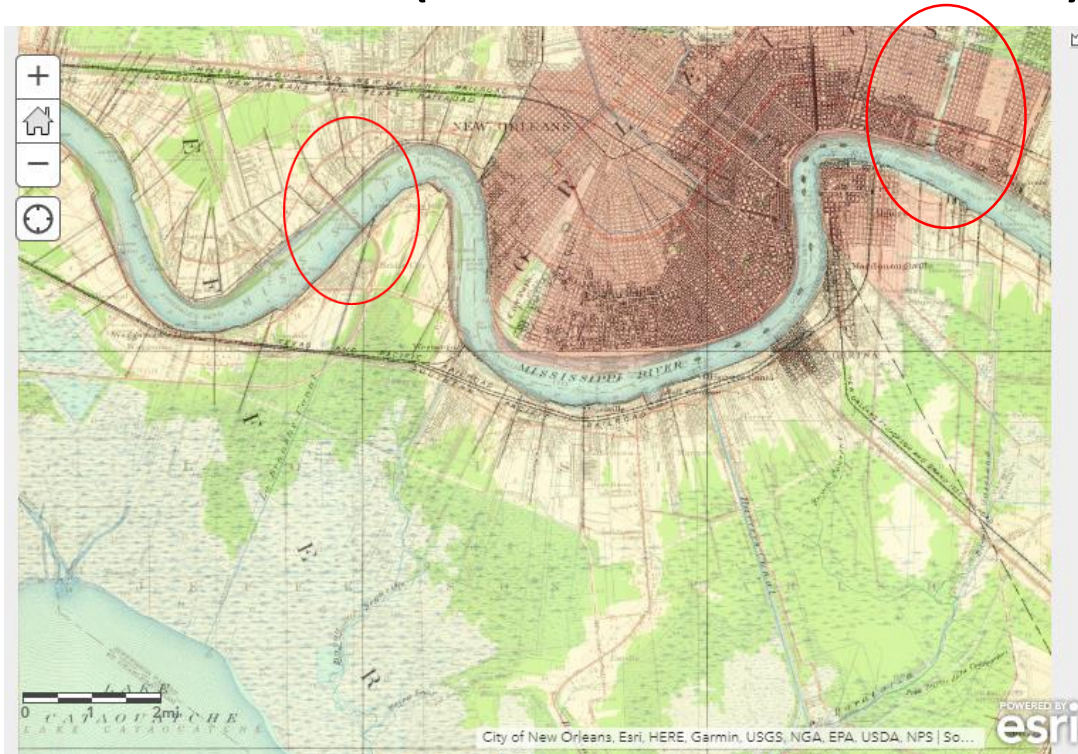
- New Orleans (1950)
- Scales: 1:62500



Actual map

- New Orleans
- Scales: 1:62500

Evolution of Mississippi river inside New Orleans (1891 to 1950)



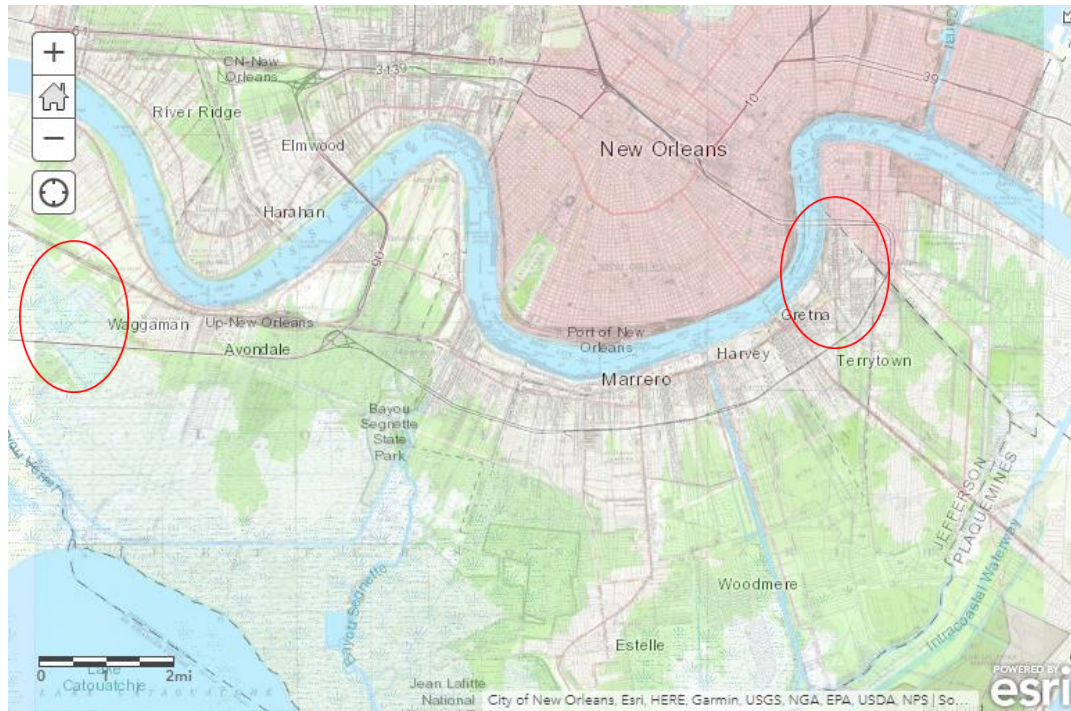
New Orleans historic map in 1891 overlaid on historic map in 1950

- Transparency map in 1891 was increased in order to observe new structures emerged in 1950 on the Mississippi river

Observation

- On the left, a bridge can be observed on the historical map in 1950
- On the right, construction of a canal is highlighted on the historical map in 1950

Evolution of Mississippi river inside New Orleans (1950 to now)



New Orleans historic map in 1950 overlaid on current topographic map

- Transparency map in 1950 was increased in order to observe new structures emerged in current map on the Mississippi river

Observation

- On the left, a body of water in 1950 was replaced by swamp area in current map
- On the right, construction of a bridge in the current map

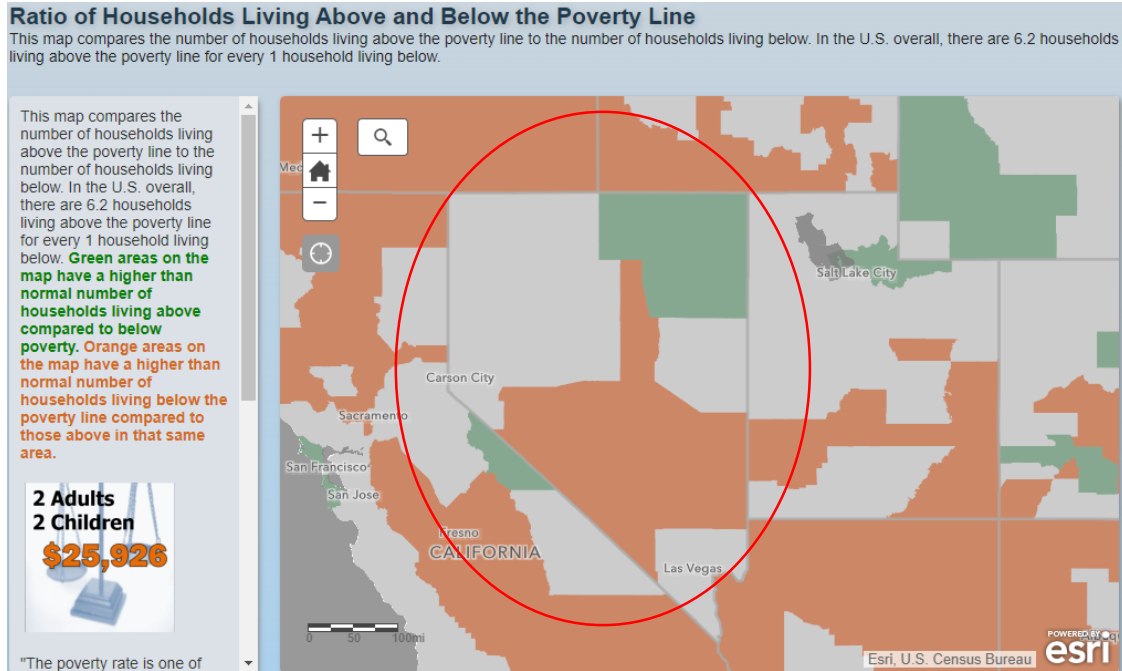
Reference

- <https://ucd-cpe.maps.arcgis.com/home/webmap>
- <http://livingatlas.arcgis.com/topoexplorer>

Ratio of Households Living Above and Below Poverty Line in Nevada state

Nicolas Vuille-dit-Bille

Nevada state ratio of households living above and below poverty line according to 2 different scales



Observation

- On the left at high scale, half of the Nevada state show an equal number of households living above and below poverty line. In the northern region, in the upper right corner of the polygon, it seems that the trend is towards the households living above the poverty line while the southern region show more regions with households living under poverty line.
- However, when the southern region is zoomed in (on the right), many regions with households living above poverty line emerge around Las Vegas.

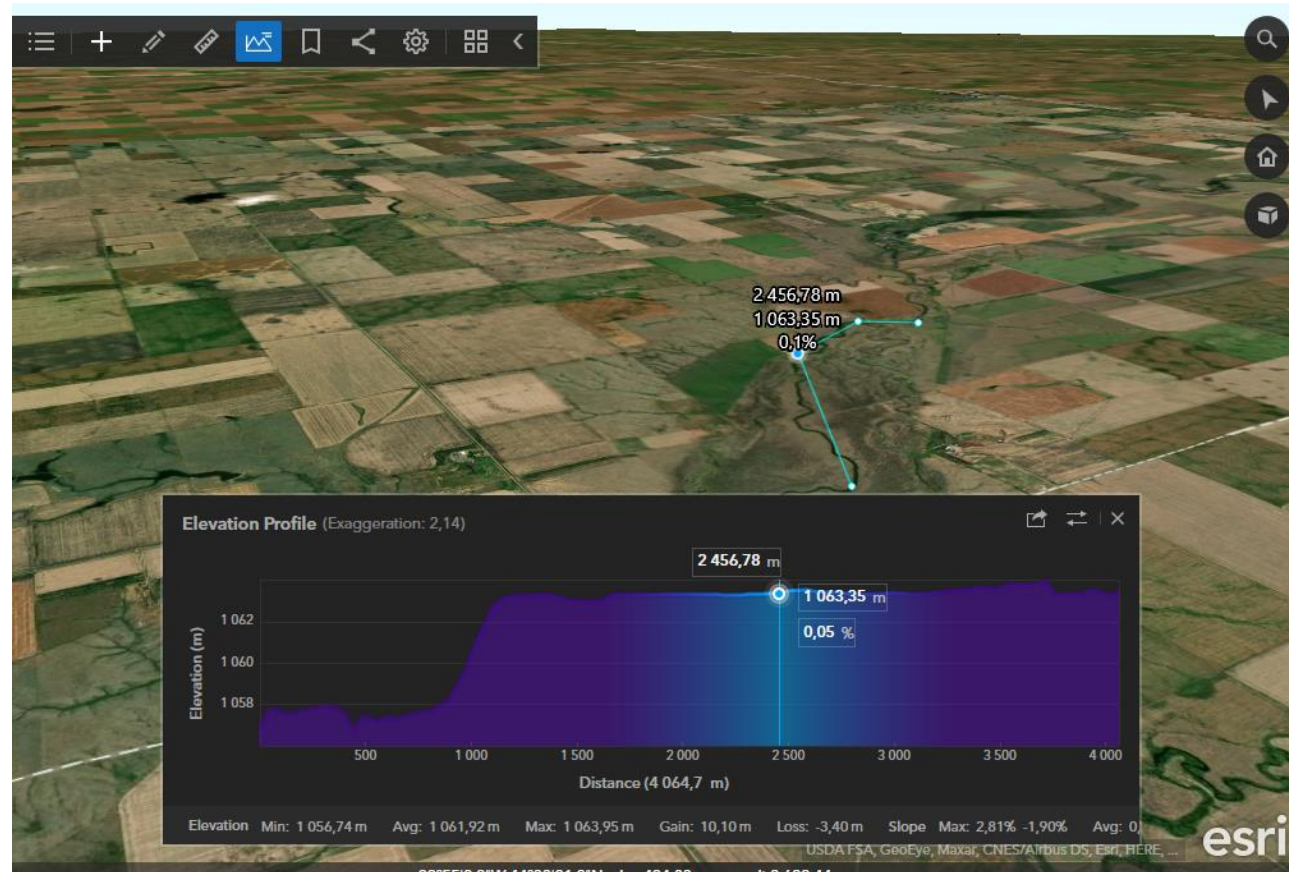
Reference

- <http://nation.maps.arcgis.com/apps/Panels/index.html?appid=62ec1c03c1ca49438d9a53da4a6433b6>

ArcGis Earth exploration

Nicolas Vuille-dit-Bille

Creek elevation Profile



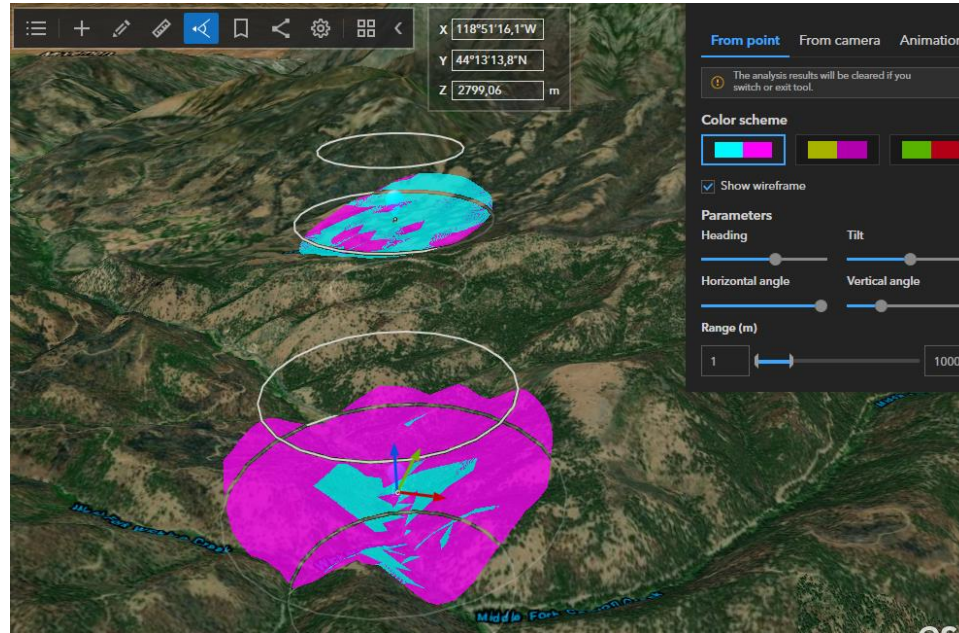
- Medicine Knoll Creek close to Blunt city in South Dakota
- According to the drawn profile, the creek altitude increases quickly after around 900m and after around 1200m a plateau is reached

City exploration: Valls in Catalonia (Spain)



- On the left, the image shows that this city is surrounded by mountains
- On the right, the image shows that a river crossed the city. On this image, the river seems to be dried-up but may be more active in rainy season.

Topography observation: Grant area in Oregon



Viewshed analysis of Grant area in Oregon

- Blue point represents the point of view and the coloured surface around corresponds to the visible and obstructed area from the point of view.
- The visible area is in cyan and the obstructed area is magenta.
- At the forefront, there are a lot of obstructed areas (in magenta) because the point of view is situated in a valley.
- In the background, the point of view is situated in a flatter area. So more areas are visible (in cyan) from the point of view

References

<https://www.esri.com/en-us/arcgis/products/arcgis-earth/overview>