

Digitization Process - Comfort Women HGIS Project:

- Georeferencing:

* The original map was georeferenced using QGIS, 56 control points, and a Spline transformation in order to achieve the best fit for the WGS84 world projection (World Geodetic System 1984). Control points were placed on easy-to-recognize map landmarks for the best fit. The georeferenced layer was overlaid on the base map in QGIS (using ESRI® Rest server imagery). The transparency was then set to 30% in order to see the base map underneath. Once this was in place, digitization for each point type could be completed. The original source map is in the project folder. Points were digitized and sorted into appropriate feature classes within a geodatabase in ERSI's ArcGIS Pro® software (Version 3.3.2)

Source for original map:

https://www.researchgate.net/figure/Map-showing-the-Japanese-comfort-stations-throughout-Asia-from-1932-to-1945-C-Womens_fig1_343763679

The transformed TIF map is included as a part of the project data.

- Point Digitization:

* Four distinct feature classes were created from the four types of point sources listed on the original map:

'Testimonies of Comfort Women Survivors'

'Japanese Soldiers Testimonies and Journals'

'Official and Military Documents'

'Witness Testimonies and Others'

The points added to each feature class were placed in the center of the original point from the georeferenced map. When zoomed in, the original points proved to be quite large, necessitating the need for a buffer around the point placements (see below).

- Buffers:

* A manual measurement was taken using the original map (in meters) for each point source type. A buffer is a defined zone or area created around or within a geographic feature such as a point, line, or polygon. These buffers were created due to the massive size discrepancies for each point that were encountered when the digitized map was zoomed in. The buffers create a visualization of the entire region around each digitized point. Due to the imprecise nature of the data, it helps add a margin of error for each point. The measurements were made using the 'Measure' tool in ArcGIS Pro, starting at the top of the point to the bottom. The measurements were approximations based on the original point. The measurements which were taken from each type of point source are as follows:

'Testimonies of Comfort Women Survivors': 64 km from top of points to bottom

'Japanese Soldiers Testimonies and Journals': 64 km from the top of points to the bottom

'Official and Military Documents': 51 km from top of points to bottom

'Witness Testimonies and Others': 52 km from top of points to bottom

*The average buffer distance was 55.7 km

-Administrative Boundaries (Admins) :

* Administrative boundaries (admins) were supplied by www.diva-gis.org. DIVA-GIS supplies free, open-source GIS data for download and use. This project would not have been possible without access to their data.

* Admin data was spatially joined using admin 0 data. The lowest admin data that every country had was admin 0 data. Admin 0 is the geometry for each country at a country-boarder scale.

* Admin 1 data is included in the geodatabase (GDB) and was also spatially joined to the point data. The joined attribute tables do not include the native language (NL_NAME_1) attribute column due to data and translation discrepancies. This layer can still be accessed and referenced in the raw admin data layers.

* Countries are indicated by their three-letter international country code (ISO 3166). Full country names are included in the attribute tables for each feature class

- Feature Classes/Layers

* Feature classes are broken up into individual countries for both points and buffers. A master feature class for each "type" of testimony was also created for easy toggling. Each type of feature class is provided in the project folders and will be labeled accordingly.