

Cartographic Visualisation of Graffiti for Web Maps

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ABSTRACT:

The spatial conditions and location of a wall or surface play a fundamental role in the creation of street art. After graffiti are sprayed onto a wall, its spatial (and temporal) context remains crucial. Without it, understanding such cultural and artistic expressions within their urban environment is severely limited. Preserving the spatial context of graffiti is, therefore, highly significant, as it allows us to maintain a connection to the original message and purpose of the artwork.

Many documentation archives of graffiti and street art present their data records by means of (web-based) maps. Maps make it possible to quickly and intuitively gain insight into the overall situation of graffiti across an area. At a finer scale, they allow for conveying the complex spatial characteristics - the shape - of each individual graffiti. Modern web maps provide a seamless range of zoom levels and detail, allowing users to interactively explore data in a spatial context.

Although some research has been done on the spatial analysis of graffiti, its cartographic presentation is still relatively unexplored. There is much potential in adapting cartographic principles to better visually communicate spatial information surrounding graffiti. The first approaches to showcase graffiti more effectively on a map include representing graffiti features as vector data (points, lines, polygons) and simplifying their shapes through generalisation techniques.

Moreover, technological possibilities are not yet exhausted. Web mapping libraries like MapLibre GL JS and CesiumJS offer powerful tools for creating interactive maps to visualise graffiti data on a 2.5D map or 3D globe. These web maps can be customised and equipped with various filtering options for users to explore the data in depth. Those interested in exploring graffiti archives will benefit from more cartographically sophisticated visualisations and interactivity.

The talk will present the progress of the master thesis research on the challenge of mapping street art. It will present the current state of work-in-progress web maps that feature some of INDIGO's data. Additionally, a glimpse into the remaining research work will be offered, which will touch on evaluating the effectiveness and user experience of the web maps.