

# GeoHumanities 2020 Workshop Report

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## Abstract

*This article reports on the 4th ACM SIGSPATIAL Workshop on Geospatial Humanities, held in conjunction with the 28th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems. The article outlines the objectives of the workshop, and briefly describes the technical program.*

## 1 Introduction to the ACM SIGSPATIAL Workshop on Geospatial Humanities

The 4th ACM SIGSPATIAL Workshop on Geospatial Humanities (GeoHumanities'20) was held together with the 28th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, on November the 3rd (online) Seattle, Washington, USA. The workshop addressed the use of geographic information systems and other spatial technologies in humanities research.

Scholars in the humanities have long paid attention to spatial theory and cartographic outputs. Moreover, in recent years, new technologies and methods have led to the emergence of a field that is now commonly known as the Spatial Humanities. Despite recent developments, many challenges persist in the application of state-of-the-art techniques (e.g., text geoparsing), which have been showcased in venues such as the ACM SIGSPATIAL conference. The workshop is specifically concerned with the use of geographic information systems and other spatial technologies in humanities, including history, archaeology, cultural heritage, and digital humanities research, placing a strong emphasis on new methodologies that leverage recent technical and scientific developments.

## 2 The Workshop Program

The call for papers resulted in 8 submissions describing high quality research. A program committee of more than 20 members, which are listed on the workshop website<sup>1</sup>, reviewed the submissions, and 5 papers were accepted for presentation. The workshop program featured two technical sessions, followed by a discussion at the end.

After a brief opening address, the workshop started with the presentation of work by Foka et al., [1] concerning the Digital Periegesis project. This work describes the use of semantic geo-annotation to capture and analyse the forms of space within and the spatial form of the Pausanias's narrative *Description of Greece*. In particular, it discusses the challenges and affordances of using geo-parsing, spatio-temporal analysis, network analysis, and Linked Open Data (LOD) for rethinking the geographies of a non-modern literary text as based more on topological connections than topographic proximity. The second presentation covered research by Michelin and Chadeyron [4] focused on crowdsourcing for georeferencing Napoleonic cadastre over a wide area. In particular, the presentation exposes the methodology of digitising a 19th-century cadastre of the Puy-de-Dôme department

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<sup>1</sup><https://ludovicmoncla.github.io/sigspatial-geohumanities-2020/program-committee.html>

in France. This work, addressed important real-world challenges of crowdsourced digitization such as quality and heterogeneity of results specifically for mapping historical land use. In the third presentation, Pérez Vera et al. [5] discussed the use of metadata of spatial footprints from Flickr to find regions of interest within the city of Havana. The authors describe a methodology using the HDBSCAN clustering algorithm on a Flickr dataset to find regions of interest. This study aims to analyse changes in tourism in Cuba co-related with political changes.

After the break, the second session started with the presentation of work by Hämäläinen et al. [2] describing a dialect normalization method for different Finland Swedish dialects. In this work, the authors have tested 5 different character based bi-LSTM models and propose a python package<sup>2</sup>. Results show that context and character level help to improve dialect normalization. Finally, Kogkitsidou and Gambette [3] presented their work on normalisation of 16th and 17th century texts in French and geographical named entity recognition<sup>3</sup>. In this presentation they focused on old French texts to evaluate the impact of manual and automatic normalisation. Then, the authors also describe the use of five geographical named entity recognition tools for identifying locations mentioned in ancient texts. Results show that normalisation of 16th and 17th French texts helps to improve geographical named entity recognition.

A discussion period followed the last presentation of the second session, covering ideas for future developments and common aspects between the different contributions presented at the workshop.

During the workshop, on average, 35 attendees were present during the first session and 22 during the second. We believe GeoHumanities'20 was a successful event that, although small, allowed the participants to explore the contributions that modern GIS and geo-spatial analysis technologies can enable within and beyond the digital humanities.

### 3 Acknowledgments and Final Remarks

The organizers would like to thank the authors for submitting and presenting their contributions, and also the program committee members for their commitment to the paper review process. We hope that the proceedings<sup>4</sup> of GeoHumanities'20 will inspire new research ideas, and that you will enjoy reading them.<sup>5</sup>

### References

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<sup>2</sup><https://github.com/mikahama/murre>

<sup>3</sup><https://github.com/kogkitse/geoner>

<sup>4</sup><https://dl.acm.org/doi/proceedings/10.1145/3423337>

<sup>5</sup>[https://www.youtube.com/playlist?list=PLQvUAJLYvUvr4u\\_6oJvnLo38BCcvRGLxf](https://www.youtube.com/playlist?list=PLQvUAJLYvUvr4u_6oJvnLo38BCcvRGLxf)

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