TITLE: 'Expand All Layers': Embedding worlds within a spatial analysis of the altepetl.

**KEYWORDS:** landscapes; worldview; GIS; spatial analysis; representations

## **ABSTRACT:**

An intrinsic element of both physical and intangible landscapes, the altepetl (pl. altepeme) features significantly in the worldviews of Nahua and other Indigenous communities across Mesoamerica. Literally translated as 'water-mountain', the altepetl was the principal unit of settlement organisation during the Late Postclassic period (1325-1521) in the area currently known as Central Mexico. Beyond its functions as a settlement, though, the altepetl can tell us a great deal about how their inhabitants understood the world and experienced landscape. Beginning in the Early Colonial period (1521-1585), Spanish rule oversaw the active destruction and deliberate erosion of Indigenous documentary records, architecture, social structures, and communities themselves. Beyond the severe and lasting impact this continues to have on Indigenous communities today, it has also hindered understandings of the altepetl and perceptions of landscape prior to the Spanish conquest.

Altepehua, members of an altepetl, conceived of the world as a terrestrial body surrounded by water. As an inversion of this concept—a mountain filled with water—the altepetl is situated as an integral part of this worldview and a reflection of the landscape itself. The Valley of Mexico, home to three key altepeme who headed the so-called Aztec Empire, is a highlands plateau surrounded by volcanic and mountainous terrain whose foothills were once met by a series of interconnected, vast lakes. With volcanic eruptions and seismic activity, and water bodies that expanded and contracted with the seasons, this terrestrial and aquatic landscape can be seen to be in a constant yet varying state of flux. This active reshaping of tlaltícpac (the earth's surface) highlights the role of the landscape itself as an actor. Recognising this, as the Indigenous inhabitants of this landscape have, allows for a greater understanding of the significance of the altepetl.

There have been numerous studies adopting different lenses to study the altepetl, attempting to observe, analyse and more fully understand this complex entity. Yet much of this research has necessarily relied on understanding local territorial organisation through small case studies and the analysis of particular components of how this organisation functioned. Interdisciplinary and Digital Humanities approaches therefore offer the opportunity to engage with the diverse range of information that does remain from both the pre- and post-conquest period. This paper will draw on research being conducted as part of a PhD investigating the altepetl that utilises a series of core datasets, including: a brand-new sixteenth-century digitised gazetteer of New Spain (created by the Digging Into Early Colonial Mexico project); sixteenth-century historical maps produced as part of the corpus known as the Relaciones Geográficas (Geographic Reports) that blend Indigenous and Spanish interpretations of space and place; and geospatial information from the latest archaeological research at the National Institute of Anthropology and History in Mexico (INAH). Analysis of these datasets will further understandings of the territorial changes that occurred at a regional scale in comparison with the ways these changes and concepts were expressed in historical documents and other crucial evidence such as maps and paintings.

The adoption of an interdisciplinary approach such as this, applying computational methods for the analysis of complex (both in terms of content and provenance) historical material, raises both opportunities and challenges. As such, a key aspect of this research is to ensure that the draw of new approaches and methodologies does not overwrite or ignore the challenges they raise. The use of digital technologies, largely designed with only quantitative data in mind, inevitably results in some qualitative sacrifices in order to conduct powerful analyses. As such, effective understanding of the qualitative factors that shape the quantitative should be an integral step in any successful analysis with digital methods.

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This paper will therefore outline the challenges and necessity of reconciling digital methods with complex worldviews by exploring the particular case of the altepetl. The use of computational analyses to understand relationships—through GIS, text, or images—will certainly offer new insights into the spatial organisation of the altepetl. However, without properly contextualising and recognising the significance of the altepetl in the worldview of their inhabitants, any results would be rendered hollow. As with any settlement, the altepetl is not just a physical entity but rather the culmination of the complex and active worldviews of their inhabitants, shaped by and in response to the landscape itself. Conducting computational analyses that engage with key principles of the Spatial Humanities, emphasising the intersection of human and landscape, ensures greater accountability to these actors who created and harboured the altepetl.