

The PHI BETA KAPPA Society

**VISITING**



**SCHOLAR**  
PROGRAM

**MARK PALMER**

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Professor of Geography

**PUBLIC LECTURE  
OFFERINGS**

**MAPPING TIME AND SPACE: INDIGENOUS KNOWLEDGE,  
CALENDARS, AND GEOGRAPHY**

This presentation explores the processes of translating Indigenous knowledge into standardized visualization and virtual reality (VR) technologies. Our research team collaborated with Otomi timekeepers and knowledge holders from central Mexico—a region the Otomi people have inhabited for over 7,000 years—cultivating their rich traditions of astronomy and timekeeping. Through a series of collaborative design meetings, Otomi knowledge holders, timekeepers, community members, academics, artists, and VR technicians constructed a culturally appropriate and visually compelling dome planetarium presentation guided by the Otomi calendar system. This project not only aims to preserve and share the Otomi's profound understanding of time and the cosmos but also to inspire youth and broader audiences through immersive storytelling.

**RECLAIMING SPACE: THE PROCESS BEHIND INDIGENOUS  
CARTOGRAPHIES**

Mapping for or with Indigenous peoples transcends the mere creation of a final product; it embodies an ethno-cartographic journey that weaves together archival exploration, data synthesis, and active community participation in countermapping. This presentation describes the metamorphosis of mapping as a vital instrument for revealing historical information, invigorating community engagement, and questioning prevailing spatial narratives. By illuminating the path from archives to collaborative endeavors, it emphasizes the profound impact of mapping as a voyage of exploration, inclusivity, and responsibility.

# MARK PALMER

## JOURNEY OF THE DIGITAL NATIVES

Indigital networks describes the confluence of Indigenous knowledge systems with cutting-edge digital technologies. This fusion, often dubbed "indigitization," marks a transformation in the ways Indigenous communities interact with their cultural legacies, knowledge frameworks, and broader societal institutions. A pivotal element in grasping the essence of Indigital networks lies in the paradigm introduced by Palmer, which unveils the concept of indigital geographic information networks. This paradigm stresses the diverse processes of encounters, exchanges, and translations that weave together Indigenous, scientific, and digital realms into holistic expressions of technoscience. This methodology not only safeguards Indigenous wisdom but also empowers communities to champion their stories in a digital landscape, contesting prevailing historical narratives and nurturing a sense of agency.

## DOCUMENTING LAND DISPOSSESSION: THE ORIGIN OF GIS AND LAND GRAB UNIVERSITIES

The "Land-Grab Universities" (LGU) project represents a groundbreaking intersection of Indigenous mapping, geographic information systems (GIS), and historical accountability. Featured in High Country News, the project unveils the connection between land-grant universities and the dispossession of Indigenous lands, meticulously mapping over 79,000 parcels of land. Through innovative cartographic design and GIS methodologies, the research team transformed archival records, plat maps, and land tenure documents into a dynamic spatial database, making invisible histories visible. This presentation will explore the LGU project's interdisciplinary approach—melding humanities, science, and geospatial technology—to create transparent, reproducible research that illuminates the legacy of the Morrill Act. By visualizing land flows and university benefits, these maps challenge erasure, fostering accountability and dialogue between tribal communities and universities. The presentation will conclude with a call for new lines of reciprocity and responsibility, including equitable education policies and cooperative initiatives with Native communities, leveraging GIS to reimagine societal "road maps."

### CLASSROOM DISCUSSION TOPICS

- 1. RESEARCH WITH INDIGENOUS COMMUNITIES**
- 2. INTRODUCING INDIGENOUS KNOWLEDGE INTO THE CLASSROOM**
- 3. ANY OF THE ABOVE LECTURES CAN ALSO BE USED AS DISCUSSION TOPICS**