

Chapter 50

Mapping the Hopi Landscape for Cultural Preservation

Saul L. Hedquist

University of Arizona, USA

Stewart B. Koyiyumptewa

*Hopi Cultural Preservation Office, The Hopi
Tribe, USA*

Wesley Bernardini

University of Redlands, USA

T. J. Ferguson

University of Arizona, USA

Peter M. Whiteley

American Museum of Natural History, USA

Leigh J. Kuwanwisiwma

*Hopi Cultural Preservation Office, The Hopi
Tribe, USA*

ABSTRACT

For the Hopi people, named places on the landscape localize, commemorate, and transmit traditional knowledge within a spatial context used to reference and explain Hopi history and culture—geographic information the Hopi Tribe seeks to preserve. This paper discusses the Hopi Cultural Preservation Office's use of geospatial technologies during recent collaborative efforts to document important places and associated cultural information. It considers how GIS and other geospatial technologies have been used to produce maps and digital imagery in a manner guided by traditional landscape perspectives and native epistemologies. Mapping Hopi lands provides many benefits, foremost being the preservation of place-related knowledge for future generations of Hopis. Geospatial technologies also facilitate Hopi efforts of heritage management by providing a medium that effectively demonstrates use of traditional landscapes to non-Hopi audiences.

1. INTRODUCTION

The Hopi Tusqua is our love and always will be ... Our land, our religion, and our life are one. -Village of Songòpavi petition to the Indian Claims Commission (1951)

The Hopi people have mapped their landscape since “time immemorial.” For the Hopi, the land provides a canvas for situating historical events and everyday and ritual practices (Ferguson & Colwell-Chanthaphonh, 2006). Named places on the land provide spatial markers used to reference and explain

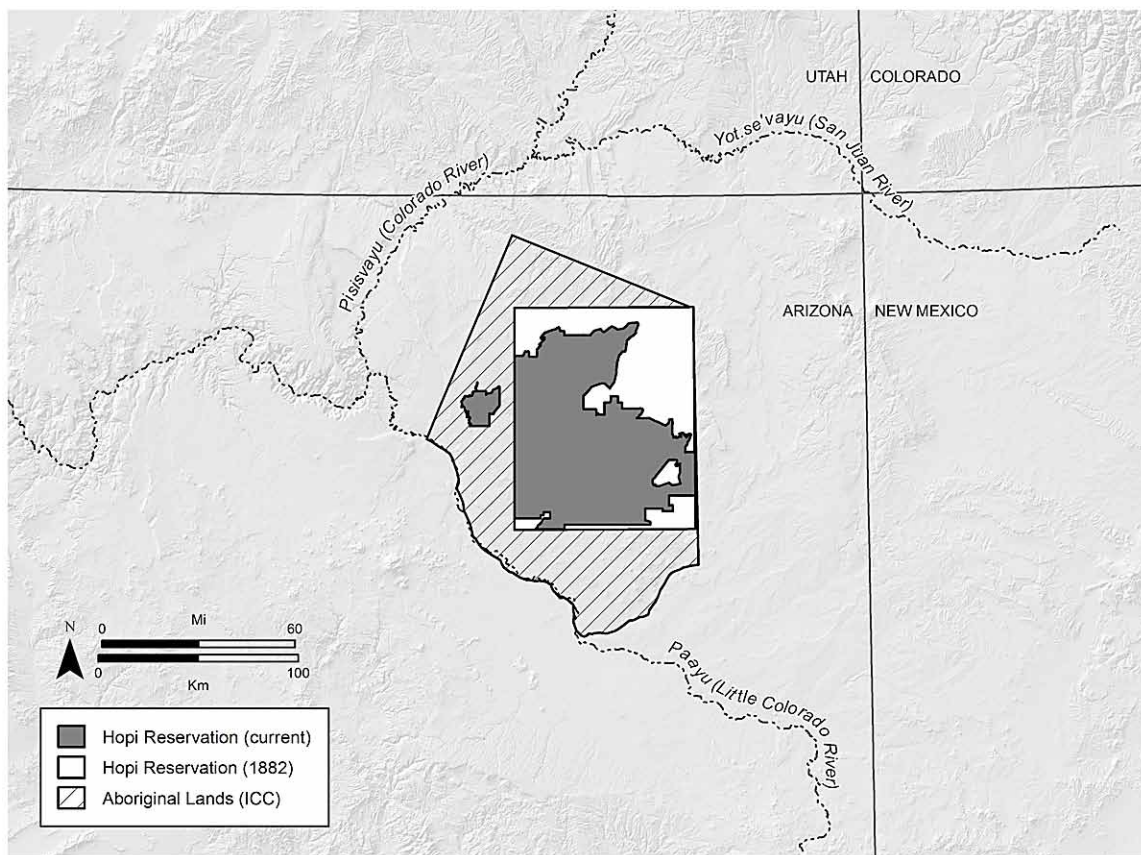
DOI: 10.4018/978-1-4666-9845-1.ch050

Mapping the Hopi Landscape for Cultural Preservation

Hopi history and culture. Connections to the land permeate life. Components of the landscape are continually remembered and commemorated through visitation, daily practice, daily and ritual discourse (e.g., stories and songs), as well as through the placement and use of what the Hopi call *itaakuku* (“our footprints”)—ancestral villages, petroglyphs and pictographs, and other archaeological sites that mark ancestral homes and pathways (Ferguson, Dongoske, Yeatts, & Jenkins, 1995; Ferguson & Loma’omvaya, 2011; Kuwanwisiwma & Ferguson, 2009; Whiteley, 2011).

In this article we discuss how the Hopi Cultural Preservation Office (HCPO) has used geospatial technologies such as geographic information systems (GIS) and 3D scanning to preserve and communicate knowledge of and connections to culturally important locations on the Hopi Reservation and surrounding region in the state of Arizona (Figure 1). We summarize several collaborative research projects that employed GIS and other technological applications for community education and cultural preservation. For HCPO, innovative and informed use of geospatial technologies has augmented the preservation and dissemination of place-related knowledge. The use of these technologies has promoted positive and mutually beneficial collaboration between Hopi and non-Hopi researchers.

Figure 1. Location of Hopi reservation and judicially determined aboriginal lands



18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/mapping-the-hopi-landscape-for-cultural-preservation/149539

Related Content

Identification of Lithology Using Sentinel-2A Through an Ensemble of Machine Learning Algorithms

Imane Bachri, Mustapha Hakdaoui, Mohammed Raji, Abdelmajid Benbouziane and Hicham Si Mhamdi (2022). *International Journal of Applied Geospatial Research* (pp. 1-17).

www.irma-international.org/article/identification-of-lithology-using-sentinel-2a-through-an-ensemble-of-machine-learning-algorithms/297524

Combining Transportation Network Models with Kernel Density Methods to Measure the Relative Spatial Accessibility of Pediatric Primary Care Services in Jefferson County, Kentucky

Jeremiah J. Nieves (2015). *International Journal of Applied Geospatial Research* (pp. 39-57).

www.irma-international.org/article/combining-transportation-network-models-with-kernel-density-methods-to-measure-the-relative-spatial-accessibility-of-pediatric-primary-care-services-in-jefferson-county-kentucky/122803

Studies of Accessibility to Healthcare in Canada

Olesya Elikan (2013). *Geographic Information Analysis for Sustainable Development and Economic Planning: New Technologies* (pp. 68-86).

www.irma-international.org/chapter/studies-accessibility-healthcare-canada/69049

Knowledge Extraction from Geographical Databases for Land Use Data Production

Hana Alouaoui, Sami Yassine Turki and Sami Faiz (2017). *Handbook of Research on Geographic Information Systems Applications and Advancements* (pp. 321-343).

www.irma-international.org/chapter/knowledge-extraction-from-geographical-databases-for-land-use-data-production/169994

Accelerating Geospatial Modeling in ArcGIS With Graphical Processor Units

Michael A. Tischler (2019). *Geospatial Intelligence: Concepts, Methodologies, Tools, and Applications* (pp. 411-422).

www.irma-international.org/chapter/accelerating-geospatial-modeling-in-arccgis-with-graphical-processor-units/222909