

# **HUMANITIES GIS IN AN INTERACTIVE ONLINE MAPPING ENVIRONMENT: A PUBLIC EDUCATION PROJECT FOR GRAND CANYON NATIONAL PARK, ARIZONA, U.S.A.**

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**Introduction:** The Grand Canyon is one of the most visited and iconic national parks in the United States. Each year over 5 million people make the journey to visit this deep chasm in northern Arizona. Yet few of these visitors realize and appreciate the complex social, cultural, and ecological history of this park. Over the past 400 years, many cultures have left their marks on this dynamic landscape including Native peoples, European-American explorers, miners, ranchers, farmers, artists, scientists, tour guides, tourists, and government land managers.

**Objective:** Numerous websites have been created to assist virtual and on-site visitors at Grand Canyon National Park, yet most of these websites are focused on recreational uses of the park, ecological assessments of its natural resources, or historical biographies of a few select individuals. This project, in contrast, aims for a more inclusive approach to interpreting the historical, ecological, cultural, political, and economic context of the park and its larger connections to American history, place identity, and environmental perceptions. To meet this goal, this project draws on archival research, landscape interpretation, and mapping technologies to create an interactive medium through which users may access and explore the park. This website also builds on the experience and knowledge of many individuals and groups including a university scholars, National Park Service staff, tribal representatives, non-profit public education groups, and private consultants.

**Methodology:** This Humanities GIS project pairs narrative descriptions with a series of interactive online maps to explore and interpret the changing cultural, historical, and ecological contexts of the canyon from over time. The data for this project draws from archival sources (historical maps, photographs, postcards, oral histories, journals, and reports), GIS cultural and physical landscape shapefiles from the National Park Service, United States Geological Survey (USGS) 24K Digital Elevation Models (DEM) files, fieldwork, and on-site interviews of park staff and consultants. The website content is aimed at a broad audience including virtual and on-site park visitors, National Park Service staff, scholars, and K-12 educators. The “Nature, Culture, and History at the Grand Canyon” website is created using ArcMap 9x, Dreamweaver, Adobe Photoshop, and Google Documents (for online collaborative document creation and review). All of the materials and maps used for this website are then checked, refined, and revised through a process of scholarly research, advisor and consultant review, and collaborative revision.

**Results:** The results of this work include an interactive website with maps, text, and photographs interpreting the natural, cultural, and historical context for 88 locations at the Grand Canyon. This project is being developed through a grant from the National Endowment for the Humanities “We the People” program, with additional funding by Arizona State University’s Institute for Humanities Research and the Grand Canyon Association.

**Conclusion:** This poster presents the results of this work, explores the challenges of creating a digital humanities project, offers an application of transdisciplinary collaboration, and suggests future directions for research and development.