# Elevating Geography:

# A Collaboration with Secondary Teachers & Students in SE Texas



Dr. Velvet Nelson (PI), Dr. John Strait (co-PI), Dr. Ross Guida (co-PI), Ava Fujimoto-Strait (co-PI), and Hailey Richardson (student researcher)

Department of Environmental and Geosciences, College of Science and Engineering Technology, Sam Houston State University

#### Introduction

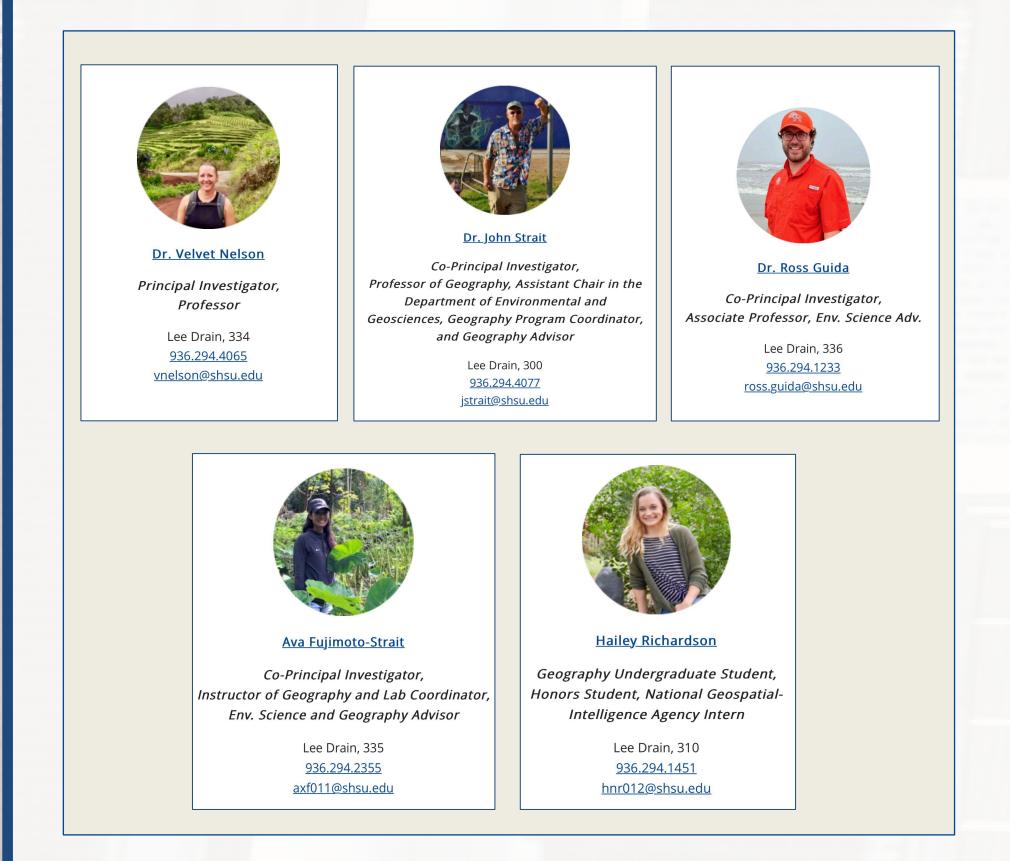
This poster presents the outcomes of a collaborative project supported by the National Geographical Society (NGS) and the Texas Higher Education Coordinating Board (THECB). The project aimed to improve the delivery and effectiveness of geographic education in high schools across the Houston, Texas metropolitan area.

The project had three main objectives: 1) provide teachers with content, geographic methodologies, and technological tools to develop place-based activities that align with Texas Essential Knowledge and Skill (TEKS) standards, 2) promote place-based awareness among economically-disadvantaged minority students, helping them better understand their region's unique cultural environment and its connections to the wider world, and 3) introduce teachers and students to innovative geographic methods for exploring their local and global worlds and highlight how a geographical education can open doors to higher education opportunities.

Key words: place-based learning, geographic education, ArcGIS Story Maps

#### **Collaboration Team**

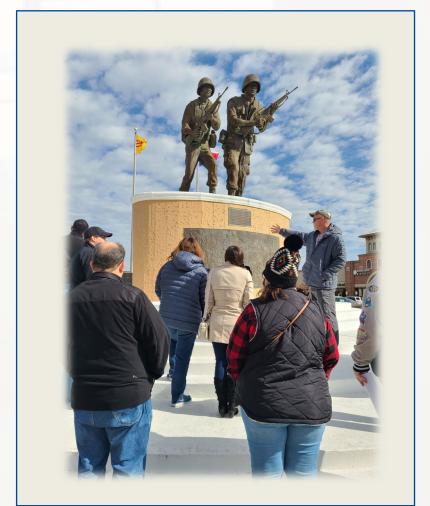
This project involved the collaboration between geography faculty at Sam Houston State University and high school teachers in the Houston area, with a focus on those working within a school district primarily serving economically-disadvantaged and minority students.

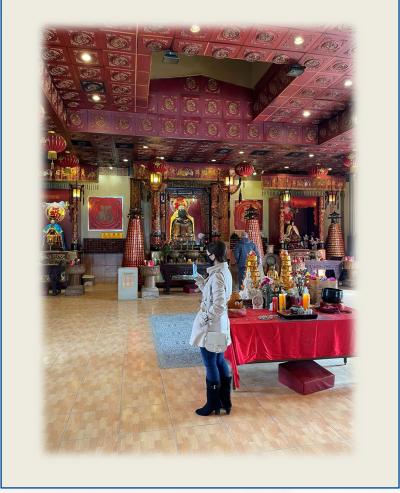


## Teacher Workshops, Place-Based Learning, & ArcGIS Story Maps





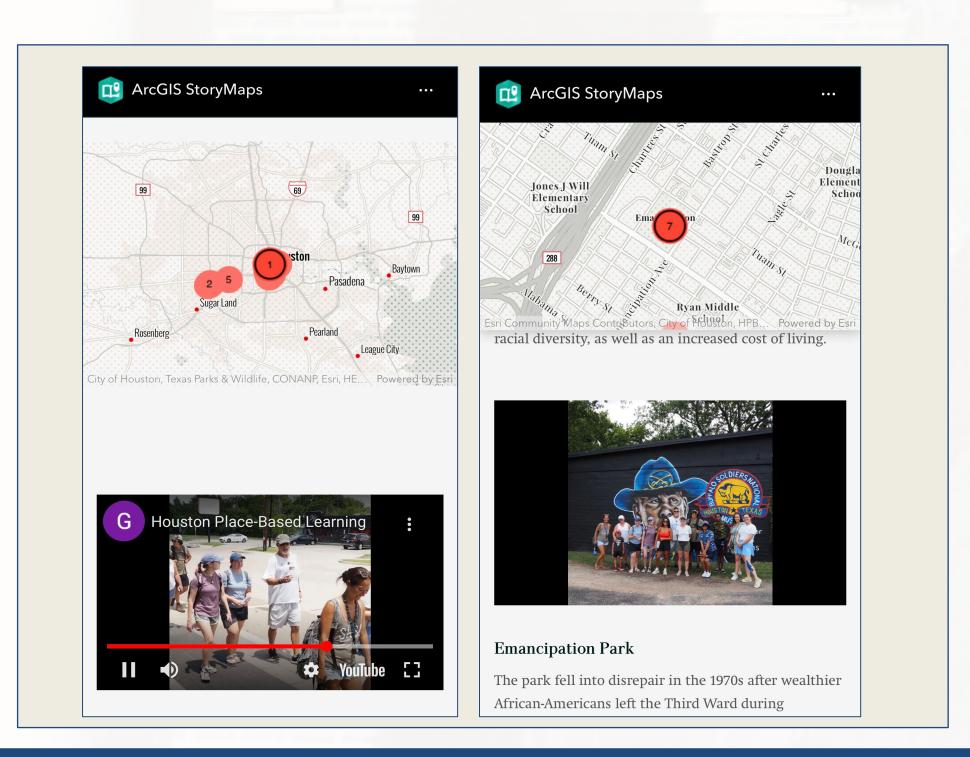


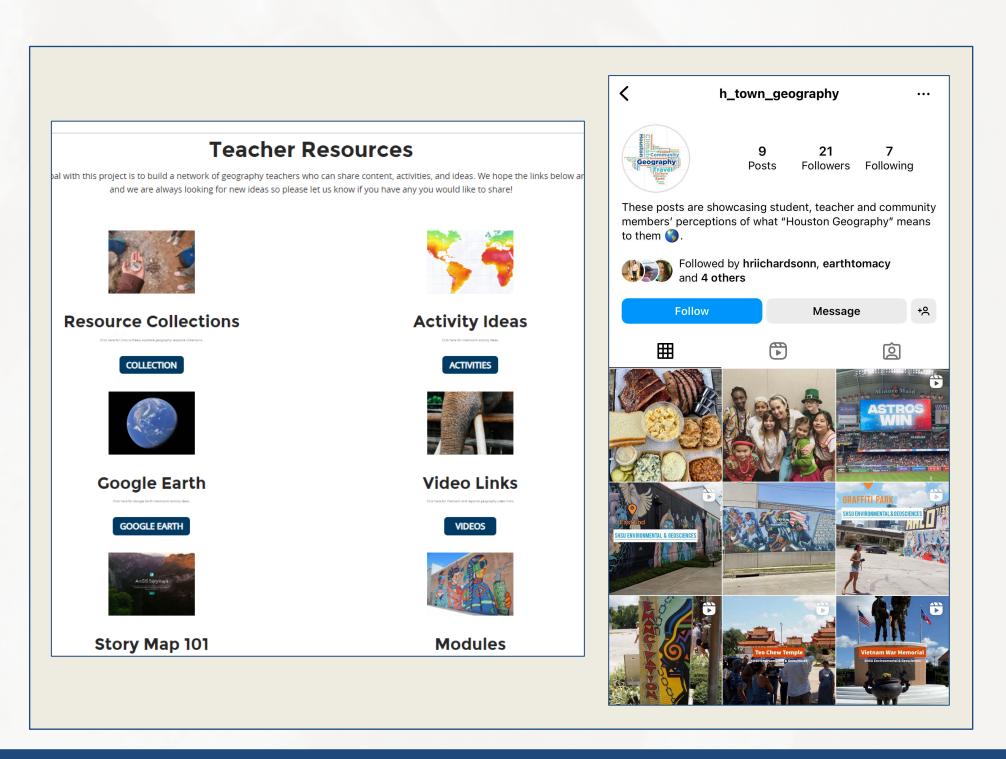




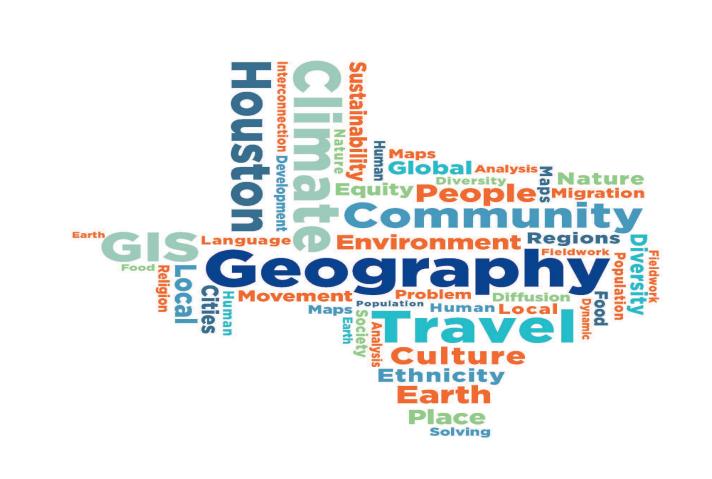


To achieve the project objectives, we organized three distinct day-long teacher workshops. These workshops served as platforms for educators to share their personal experiences teaching geography, discuss their preferred topics and teaching methods, and explore content areas that engaged their students and/or posed teaching challenges. During these workshops, teachers were provided with hands-on training in various geospatial technologies and tools, including interactive Google Earth activities and ArcGIS Story Maps. Additionally, by engaging in a field experience across the Houston urban area, participants had the opportunity to directly apply their learning in a real-world environment. This field experience focused on the geographical dimensions of Houston's diverse ethnic communities, thus enabling participants to directly connect classroom content with real-life experiences. To document their field experiences, teachers utilized photography, video, and text on a shared website and Instagram, turning localities within their students' communities into valuable pedagogical resources. The project culminated with a visit to SHSU's main campus by Houston area high school students. These students not only attended a university-level seminar but also engaged in informal discussions with university-level geography students, gaining valuable insights into college life from a student perspective.





#### **Teacher Testimonials**



- The teacher field trip...allowed me to see how the historical significance of Houston, Texas can be easily aligned with World Geography curriculum and standards. As a result of participating in the teacher field trip, I have organized similar field trips for my students that are directly a result of the workshops and activities that SHSU and the NGS organized and facilitated for educators.
- I loved that my students were able to get an authentic university experience by participating in a lecture-style presentation with actual SHSU students. My 9th graders were able to share in true meaningful discussions with current SHSU students that had interests, majors and classifications.

# Acknowledgments

This project was funded by the National Geographic Society. We would like to thank the high school teachers and students for their time and insights during the course of this project. We would like to also thank Melissa Moya for her work on the Google Earth content, and Bri Smith for developing the website with geography teacher resources. Finally, we must thank Camy Dawson for helping these projects run smoothly.

## Our NGS Project Website

Building an Engaging Place-Based Geography Community in Metro Houston DEPARTMENT OF ENVIRONMENTAL AND GEOSCIENCES SAM HOUSTON STATE UNIVERSITY NATIONAL GEOGRAPHIC



