

Keyue Sun, Louisiana State University, Baton Rouge, Louisiana, USA for their project: *Jadeite: Differentiating compositions and textures of samples from Burma and Guatemala*.

Keyue (Skylie) Sun is an M.S. student in the Department of Geology and Geophysics at Louisiana State University, where she works with Professor Barbara Dutrow. She earned her bachelor's degree at China University of Geosciences (Wuhan), where she studied gemology, including gem identification and characterization, cutting and processing, and treatments and enhancements, while developing interests in mineralogy, and applying geological approaches to the study of rocks, minerals, and gem materials. Her broader research interests focus on the microscopic, spectroscopic, and microanalytical study of gemstones, minerals, and diverse cultural-heritage artifacts, with particularly emphasis on their composition, provenance, formation or production histories, and geological and cultural contexts.



Her Howard and Jean Lipman Foundation Research Award project “*Jadeite: Differentiating compositions and textures of samples from Burma and Guatemala*” investigates whether textural characteristics, alone and combined with mineral chemistry, can provide complementary evidence for jadeite provenance. Geographic origin strongly affects jadeite’s market value and consumer preference. Existing provenance studies rely mainly on geochemical and spectroscopic methods, while texture remains comparatively underexplored. Using petrographic observations, imaging, and mineral chemistry data, this project will test for systematic and reproducible textural and compositional differences between the two localities. The resulting framework could strengthen quantitative and analytical determination methods, helping reduce misrepresentation, protect consumers, promote transparency in the jade market, and support the authentication and interpretation of jadeite in museum collections.

Keyue hopes to pursue a museum-based research career integrating mineralogical and material analysis with cultural interpretation across mineral, gem, and cultural-heritage collections. This project will help build the analytical foundation for that interdisciplinary path.