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Sabbatical Final Report for Owen Anfinson

Spring Semester 2023

I am pleased to provide an overview of my scholarly activities and academic accomplishments during my sabbatical leave in the spring term of 2023.

Research and Scholarly Activities

1. *Manuscript Submission:* As outlined in my original sabbatical proposal, we have concluded our sampling of Angel Island State Park and during Spring 2023 we submitted the manuscript to one of the geosciences most respected journals: The Geological Society of America Bulletin. I was lead advisor and second author on the manuscript and for the past year have continued to meet with my PhD student from McGill University at weekly meetings. I was also able to get SSU undergraduate Nicholas Schroeder on to the manuscript since he did all of the initial sampling and age dating at the University of Arizona. The manuscript was recently accepted and we are submitting revision soon. Manuscript reference:

Das, M., **Anfinson, O.A**., Rowe, C.D., and Schroeder, N. Age, sedimentology and deformation history of the Mesozoic Franciscan Accretionary Complex, Angel Island, California. Geological Society of America Bulletin. In Press. ID#: B37239.

2. *RSCA Grant Proposal:* During Spring 2024 I dedicated time to write and acquire an SSU RSCA Grant to further develop my Unoccupied Aerial Systems research. I have since taken on three SSU undergraduates research students with a focus on providing opportunities for underrepresented students. The students have been building a website to host virtual geologic field trips and are currently training to take their Part 107 Remote Pilot UAS license. This grant is being used as a seed for a larger NSF grant.

3. *Svalbard Geochronologic Research:* During Spring 2023 I organized a series of Zoom meetings and developed a research plan with colleagues from University of Oslo, University of Svalbard, and Macalester College. We have since applied for an Arctic Field Grant from the Norwegian Research Council and we will be utilizing a Polish sailboat in August 2024 to sail around the southern coast of Spitsbergen to sample, age date, and 3D model outcrops of ancient marine sediment. This research will continue for the next few years.

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Teaching, Academic Enrichment, and Community Outreach

4. *Research/Teaching Trip across Alaska:* As the last deliverable of our Norwegian Research Council Grant (NORRAM2) I utilized the time afforded during sabbatical to organize and plan a 12-day research/teaching trip from the bottom to the top of Alaska for 25 international professors and PhD students during August 2023. This incredible experience allowed me to establish new research connections, increase my own knowledge of the tectonic development through the education of the "next generation of Arctic geoscientists" (our core mission for the NORRAM2 grant), and to develop a new library of drone imagery from Alaska.

5. *Participation in Transformative Inclusivity in Postsecondary Stem (TIPS) program:* During the Spring semester I continued to work with the TIPS cohort to develope a lesson study aimed at providing a richer academic experience for SSU underrepresented students (with a particular focus on Latinx students).

6. *Geoscience Outreach and Education:* I have further developed the @geologyfromabove science communication Instagram page spending time to not only build videos and structure-from-motion models, but to also train research students to get their pilots license and create their own content. The videos are starting to have significant reach with a recent post about Denali reaching 50,000 views.

7. *Community Engagement:* I gave a talk titled, "To See a World in a Grain of Sand: Utilizing Heavy Minerals to Understand California's Geologic History" during an event called Wonderfest in Spring 2023. The talk allowed me to highlight the research from some of my recent publications on Mt. Tamalpais and Angel Island State Park and to teach the local community about how we use modern age dating techniques to understand the incredible geology of Sonoma and Marin counties.

I am grateful for the support SSU has provided during my Spring 2023 sabbatical leave, which enabled me to make substantial progress in my research, teaching, and community engagement. I look forward to building upon these accomplishments and continuing to advance my career as a member of the SSU academic community.

Thank you,

Dr. Owen Anfinson
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