

FACULTY DEVELOPMENT GRANTS - SUMMARY

ACADEMIC YEAR 2020-2021

School of Arts, Education, and Humanities

Project Title: Georgia's Line post-production

Faculty Investigator Name: Associate Professor Jo Dery

Faculty Investigator Department: Film Studies

Amount Awarded: \$3,000

I will work with a professional colorist (Anastasia Shepherd, Los Angeles, CA) and sound mixer (Chris Swist, Chesterfield, NH) in order to complete post-production on my short film, *Georgia's Line*. *Georgia's Line* is a faculty-led practicum project, created to give students the opportunity to get real-world, hands-on experience on a faculty-directed film set. A colorist will manipulate the raw footage so that the color is more evocative of the emotional tone of the story, and so that the color fits within broadcast standards. A sound mixer will take my edited audio and manipulate the sounds so that they are clear, have appropriate emotional resonance, and so that the stereo mix fits within broadcast standards. By diving deeper into these areas with working professionals, I can bring the knowledge I gain back into the classroom. I also plan to offer 2 students the chance to learn alongside me, just as I did with the film's production.

Project Title: Militarized Masculinity and Torture in Spain and Chile: Resistance through Film and Narrative.

Faculty Investigator Name: Lisa DiGiovanni, Associate Professor

Faculty Investigator Department: Department of Modern Languages and Cultures, Holocaust and Genocide Studies

Amount Awarded: \$1,800

The Faculty Development Grant will provide me with the funds to hire a professional copyeditor to review my book manuscript titled ***Militarized Masculinity and Torture in Spain and Chile: Resistance through Film and Narrative***. The book aims to contribute to the study of injustice and provoke dialogue on the intersections between violence, gender, and militarism.

Project Title: Finding Place: Investigations and Landscape

Faculty Investigator Name: Emily Noelle Lambert

Faculty Investigator Department: Art and Design/Studio Art

Amount Awarded: \$3,000

Funding from this grant will help support interconnected research projects around **Place and Landscape**. In June 2021 I will attend the **DNA Artist Residency in Provincetown, Massachusetts**. Funding will be used to purchase materials and assist with associated travel. In July I will participate in a **Drawing Marathon run by the New York Studio School** and taught by the founder of the Marathon and Dean of The New York Studio School, Graham Nickerson. The Drawing Marathon is an intensive two-week 9 hour a day drawing and painting marathon that has been in existence for 38 years—based on observational and perceptual drawing. This Marathon will benefit my own art practice and provide valuable research into a drawing process to inspire my own drawing courses at KSC. July and August will be spent in my studio preparing for my **solo exhibition slated to open in Spring 2022**. This exhibition will include

6 largescale paintings, drawings and sculpture investigating ideas of landscape. Throughout the summer I will take short daytrips to **research regional and local art organizations, museums and galleries**. I will conduct studio visits with artists in the region and NYC as I prepare to **curate the exhibition to open in Fall 2021 at the Thorne Sagendorph Gallery**—a show based on the exploration of landscape. The show will include painters, sculptors, video and drawing. A full year of research and work to further anchor myself in my art making and teaching practice.

Project Title: Complete a CD recording of solo guitar music and original chamber works with guitar
Faculty Investigator Name: Jose Manuel Lezcano, Ph.D., Professor of Music
Faculty Investigator Department: Music
Amount Awarded: \$1,856

My project is to record a CD of guitar music, both solo and chamber works, including original works, and works by Spanish and Latin American composers. The CD will include two works by Bach. CD recordings are one of the ways that a professional musician can secure favorable reviews, get the attention of concert venues and directors of concert series, and ultimately secure bookings. The last solo CD I released was over 15 years ago. I have grown as an interpretive and creative artist since then and have focused on a body of repertoire (original works, Latin American music, Spanish music, and some works by Bach) that have helped me to secure bookings and professional recognition in the music community. The CD will be submitted to various specialized magazines for classical and new music. In the past I have received strong reviews from Fanfare, the American Record Guide, New Millenium Guitar, and other reviewers. I will also sell the CD through my website and at various concerts and presentations that I give around the region, country, and internationally. Some of the CDs I will send to concert venues as promotional materials.

Project Title: The Ethnopoetics of William Carlos Williams and Gary Snyder
Faculty Investigator Name: Dr. Mark C. Long
Faculty Investigator Department: English
Amount Awarded: \$1,671.75

My project will support travel to the Shield Library Archives and Special Collections, University of California, Davis to trace in the Gary Snyder Papers a discovery I made in the University of Washington Special Collections in Seattle and the Reed College Special Collections in Portland, Oregon, during a visit in the winter of 2020. Reading the letters and ethnographic research of an ethnobotanist and linguist who taught at Reed, David Heath French, who began teaching at Reed in 1947 and was one of Gary Snyder's professors, led me to a thirty-year correspondence between Snyder and French. French's research on the Chinookan people of the middle Columbia River subsequently led me to letters between Snyder and his undergraduate classmate and friend, Dell Hymes, whose later contributions as an internationally-renowned anthropologist included sociolinguistics and the poetics of Native American oral narrative.

My current project will further this research in the correspondence and manuscripts materials to support the journal article I am writing on the presence of Williams's distinctive modernist aesthetic in the anthropological and linguistic dimensions of Snyder's experimental poetics (or ethnopoetics).

Project Title: *Chaucer and Becket's Saracen Mother: The Man of Law's Tale and Race in the Middle Ages*

Faculty Investigator Name: Meriem Pagès

Faculty Investigator Department: English

Amount Awarded: \$3,000

Chaucer and Becket's Saracen Mother: The Man of Law's Tale and Race in the Middle Ages focuses primarily on two texts, the late medieval English legend about Saint Thomas Becket's non-Christian mother and Geoffrey Chaucer's *The Man of Law's Tale* from his masterpiece *The Canterbury Tales*, to discuss the larger issue of late medieval anxiety about the conversion of the Other to Christianity. These works are written at a time when the Other, particularly the Saracen Other, is both valued and seen with great suspicion. As a result, these two texts—as well as other late medieval narratives—increasingly question the mechanics of conversion, presenting conversion not just as an event, the climactic event of baptism, but as a process during which new converts must acquire the language, dress, and customs of their adoptive community.

Project Title: Historical Authenticity in Literature and Law in Late Imperial Russia

Faculty Investigator Name: Anna Schur

Faculty Investigator Department: English

Amount Awarded: \$3,000

The project focuses on the controversy surrounding the publication, in 1895, of A.O. Smirnova's memoir *Notes about Pushkin*. Despite the memoir's evident and widely acknowledged factual errors, the writer Dmitry Merezhkovsky lauded the *Notes* as an authentic account of "Pushkin's spirit." In contrast, the lawyer Vladimir Spasovich took issue with Merezhkovsky's view of the *Notes* as a valid historical source and with his freewheeling approach to facts. The controversy generated considerable public debate that lays bare the fault lines of the conflict between two distinct conceptions of truth and their links to competing approaches to evidence, both historical and legal, as well as to opposing aesthetic and political programs in late imperial Russia.

Project Title: Integrating Speaking into the Center for Research & Writing

Faculty Investigator Name: Katherine Tirabassi

Faculty Investigator Department: English

Amount Awarded: \$1,400

In this research project, I propose to lay the theoretical and practical groundwork for an expansion of the Center for Research & Writing's tutoring services to incorporate speaking as well as research and writing. I would like to conduct a review of scholarly work and current academic centers focusing on peer tutoring of oral communication. I would invite Dr. Laura Greenfield, Director, Transformative Speaking Center at Hampshire College, or another scholar in communication centers, to consult in a series of virtual conversations with the Center's core administrative team to discuss tutor training and resources required for launching these new services. I would also ask her to lead a workshop for the

Center's tutors in August 2021 (see timeline for specific dates). I would also attend the International Writing Centers Association's Summer Institute in June 2021, a week-long institute focusing on helping writing program administrators to explore a specific project, working directly with a team of mentors and a cohort to conduct targeted research, discuss an action plan for developing these services, and articulate and enact next steps for this plan, including the launch of a small pilot of these services in the Fall 2021 semester.

School of Sciences, Sustainability, and Health

Project Title: Navigating School Partnerships in a Pandemic

Faculty Investigator Name: Dr. Kim Bohannon

Faculty Investigator Department: Education

Amount Awarded: \$750

The Covid-19 pandemic forced educator preparation programs across the country to drastically shift their methods of delivering clinical experiences. This application seeks funding to share the collaborative ways in which the Keene State College Education programs worked with local schools to assure the continuation of high quality experiences, while concurrently supporting local schools during these unprecedented times. From safety protocol to teacher candidate training and collaborative engagement, multiple measures will be presented at the National Association for Professional Development Schools' Annual Conference.

Project Title: Life Cycle Assessment and Indoor Air Quality. Case studies with Water Flow Glazing facades.

Faculty Investigator Name: Fernando Del Ama Gonzalo

Faculty Investigator Department: Sustainable Product Design and Architecture

Amount Awarded: \$2,755

The successful creation of high-performance building envelopes is crucial to combating the current climate crisis. However, high initial costs hinder innovative technologies for building envelopes. Life Cycle Assessment (LCA) is a comprehensive and standardized method that quantifies all resources consumed, global warming potential, and related environmental aspects associated with any goods or services. A complete building LCA includes energy and cost evaluation over its lifetime. The global warming potential is calculated in carbon dioxide equivalents ($\text{kgCO}_{2\text{eq}}$), meaning that an emission's greenhouse potential is given in relation to CO_2 . Efforts to make buildings airtight and improve energy efficiency have led to low indoor ventilation rates, resulting in increased indoor pollutants to harmful levels. Due to the COVID-19 pandemic, indoor pollutant levels were typically higher than compatible with healthy environments. Assessing the level of CO_2 in the air, the level of fine particulate matter, as well as any presence of volatile organic compounds can help understand the relationship between energy efficiency, airtightness, and indoor air quality. This project's first goal is to apply the Life Cycle Assessment methodology to an innovative building envelope such as water flow glazing (WFG). The second goal is to use a method to assess indoor air quality in residential buildings.

Project Title: Commerce in 18th c Pacific Rim
Faculty Investigator Name: Marie Christine Duggan
Faculty Investigator Department: Economics
Amount Awarded: \$2,891

In the 21st century, trade between US and China has taken on an important role, and this contemporary issue has increased interest in the origins of that trade. Yet literature in English tends to date the start of the trade with Captain Cooke's voyages to the Pacific in the 1760s and 1770s. Hispanic traders sailed between Asia and Mexico via California in the 16th and 19th centuries. Their business often deviated from Spain's mercantilist restrictions, and so was officially contraband. Literature on early 19th century trade in California considers the New England Bryant and Sturgis family as plying the trade between Canton and California. I propose to spend two weeks at the Santa Barbara Mission Archive Library June 27 to July 10, 2021 in order to explore the Jose de la Guerra y Noriega of Santa Barbara in trade with Juan Nepomuceno Machado in San Blas and Canton. My proposed research advances the field by illustrating the extent to which Hispanic actors financed trade between Canton-California-Mexico around 1830.

Project Title: Alexander Technique as symptom management intervention for Ehlers-Danlos Syndrome (EDS) and Hypermobility Spectrum Disorder (HSD)
Faculty Investigator Name: Harlan Fichtenholtz
Faculty Investigator Department: Psychology
Amount Awarded: \$2,500

The current proposal will support the data analysis of a randomized controlled trial examining the effects of Awareness-Based Neuromuscular Re-patterning (ABNR) on motor functions and quality of life in people with hypermobile Ehlers-Danlos syndrome (hEDS) and hypermobility spectrum disorders (HSD). Proprioceptive deficits in hEDS and HSD contribute to motor dysfunction and are associated with poor quality of life and functional impairment. ABNR is a new somatic practice that prioritizes anatomically accurate proprioception, sensory integration, and hypermobile specific risk minimization for people with EDS & HSD.

Project Title: Nozzle Design for 3D Bio-printing Process and Rheological Analysis of Bio-materials.
Faculty Investigator Name: MD Ahasan Habib
Faculty Investigator Department: Sustainable Product Design and Architecture
Amount Awarded: \$3,000

Three-dimensional bioprinting is a rapidly growing field attempting to recreate functional tissues for medical and pharmaceutical purposes. Development of functional tissue requires deposition of multiple biomaterials encapsulating multiple cell types i.e. bio-ink necessitating switching ability between bio-inks. Existing systems use more than one print head to achieve this complex interchangeable deposition, which decreases efficiency, structural integrity, and accuracy. In this research, we developed a nozzle system capable of switching between multiple bio-inks with continuous deposition ensuring the minimum transition distance so that precise deposition transitioning can be achieved. Finally, the effect

of rheological properties of different bio-material compositions on the transition distance is investigated by fabricating the sample scaffolds.

Project Title: Professional development for the anti-racism major and restorative practices microcredential

Faculty Investigator: Karen Jennings

Faculty Investigator Department: Psychology

Amount Awarded: \$3,000

A team of faculty will participate in a professional development workshop series that further augments their pedagogical approach for delivering the curricula in the Anti-racism major and Restorative Practices micro-credential. A five-day workshop will be implemented that will immerse faculty in the analysis of the intersections of gender, race and/ethnicity, sexuality, class, nation and nationality among other systems of thought by centering the examination of systems of oppression, diversity, inclusion, and equity. This creation, implementation and participation in this series will inform my leadership style development trajectory and contribute to the scholarship of teaching and learning with regard to Anti-racism and Restorative pedagogy.

Project Title: Deep Learning in Network Intrusion Detection

Faculty Investigator Name: Wei Lu

Faculty Investigator Department: Computer Science

Amount Awarded: \$2,700

Cybersecurity data science is a newly emerging subject that aims to bridge the knowledge gap between cybersecurity experts and data scientists when applying data science technologies to defend computing systems from cybersecurity threats. Cybersecurity data science can be originally dated back to the 1980s when security violations were detected by inspecting abnormal system usage patterns from the audit data and it has been recently evolved into an interdisciplinary subject in a combination of a well-grounded knowledge in mathematics and statistics, a substantive expertise in cybersecurity and a fair level of understanding hacking skills in terms of knowledge core of computer architecture, operating systems, computer networking, and cryptography. In this project we will reveal essential concepts of cybersecurity data science, discuss various categories of existing cybersecurity datasets, investigate several deep learning algorithms and illustrate their applications on detecting zero-day intrusions on cyberspace, from which we conclude that cybersecurity data science based on deep learning technologies brings in a completely new paradigm in a combination of people, technology and organization in order to make wise data-driven decisions when dealing with network intrusions.

Project Title: Last Punta* at San Pedro: Analysis of the Chipped Stone Tools from the Final Season (2021) of Excavations at San Pedro, Ambergris Caye, Belize

Faculty Investigator Name: James Stemp

Faculty Investigator Department: Sociology, Anthropology and Criminology

Amount Awarded: \$3,000

Archaeologists working in Belize continue to reconstruct the impact of the Spanish arrival on indigenous Maya communities in the 15th-17th centuries A.D. Available evidence suggests not all Maya communities were affected in the same way. Some fell under the direct control of the Spaniards; however, others managed to maintain various degrees of autonomy. One way to observe the effects of the Spanish

presence is to examine the Late Postclassic and Early Colonial period (ca. A.D. 1450-1700) material culture at Maya sites. One of the few known Late Postclassic/Early Colonial offshore Maya occupations is the site of San Pedro on Ambergris Caye. At this site, chert and obsidian stone tools are being used to document patterns of raw material acquisition, technological production, stone tool repair and recycling, stone tool use, and trade and exchange relationships. Based on the results of stone tool analysis in the 1990s and 2017, Maya lifeways were minimally disrupted on Ambergris Caye. The final season of excavations at San Pedro in the summer of 2021 will provide one last opportunity to examine more stone tools to see if this pattern of minimal disruption continues to hold true. The lack of any major upheaval on the caye, based on archaeological evidence, serves as a valuable contrast to the significant cultural changes noted at many mainland Maya sites after the Spaniards arrived.

Project Title: Coding Modifications for Autism Application

Faculty Investigator Name: Lawrence Welkowitz

Faculty Investigator Department: Psychology

Amount Awarded: \$1,500

For the past ten years I have been studying the effects of computer-assisted feedback on social language skills in children and adults with diagnosed Autism. With the help of funding from INBRE-NH, The Doug Flutie, Jr. Foundation, and the NIH supported TREAT Center, I have helped develop an application built for phone and tablet which assists speech therapists and others to work to improve conversational skills in this population. Specifically, the Speechmatch application provides visual feedback regarding “matching” of critical elements of speech, including pitch, pacing, and volume. In two recent publications and 9 conference papers I have documented how people with Autism improve matching skills following training using this application. The next step in this work is for enhanced coding of the application to include more graded point systems and incentives to improve compliance. Ultimately the goal is to create an empirically validated clinical tool which will improve social skills and quality of life in people with Autism.