

PROJECT
REPORT

From Land Acknowledgement to Place-Based Responsibilities

Enriching University Curriculum and Learning Communities through Indigenous Epistemologies

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Abstract

Land Acknowledgements have become a ubiquitous part of universities. They purport to remember, honor, and bear witness to the future of Indigenous nations and to recognize the land and honor local Indigenous communities. While acknowledging the Indigenous peoples upon whose lands we work is an essential gesture, the authors join other scholars who argue that we must go beyond a mere statement. The Land Acknowledgement must also

propel the learning community of the institution to take action, to embrace relationships with the environment (land), and to take responsibility for its care for Indigenous generations to come. Our attempts to recognize the importance of Indigenous epistemologies and commitments to the land have enriched the whole learning environment of the University. This report describes the interdisciplinary, collaborative approach we have been taking as we attempt to go beyond the mere performance

of acknowledgement towards making substantive change. At the time of writing, the authors live on the traditional territories of the Hasinal and Wichita, Caddo, Comanche, and Cherokee Nations.

Introduction

Texas Woman's University (TWU), like all institutions of higher education on Turtle Island, resides on the lands of Indigenous nations. As a university, we are residents on this land as a site of knowledge through investigation, study, and analysis. As scholars and academics, we are aware that "we cannot remove ourselves from our world in order to examine it" (Wilson, 2008, p. 14). In seeking how to better understand the world around us, we have considered our place-based responsibilities to Indigenous communities and environment on the site of the University. In this report, we discuss our initial attempts to embed site-specific, place-based forms of redress (Robinson et al., 2019), such as Land Acknowledgements. Land Acknowledgements are important for recognizing Indigenous peoples, particularly in terms of land they inhabit, learn from, and care for. However, to avoid being performative or merely symbolic, we felt our Land Acknowledgement must be embodied through tangible activity. We have found that although such action might be initiated by altruistic notions of support, in fact, acknowledgement of the knowledge and traditions of the Indigenous people enhances the educational experiences of the whole university (Deloria & Wildcat, 2001). We hope that by converting into actions what could otherwise be rhetorical gestures, we will start to empower students, faculty, and staff from within our midst and create inviting educational environments for prospective Indigenous students, faculty, staff, and collaborators. We recognize and attempt to honor the conviction that there is urgency to this and much work to be done to create equitable learning environments.

TWU's three campuses constitute the largest public university system primarily for women in the United States and is a federally designated Hispanic-Serving Institution (HSI). Our student body includes a range of identities. Over 50% of TWU students are the first generation of their family to attend college. These first-generation (or first-gen) college students are students whose

parents or guardians have not completed a bachelor's degree. Committed to educating female-identifying, first-generation college, and ethnically diverse students, both from the place currently known as Texas and from across Turtle Island, TWU plays a significant role in expanding opportunities for earning advanced degrees to a broader demographic group.

This report outlines our interdisciplinary, collaborative approach to embracing culturally relevant initiatives and fostering strong relationships with the health of the land and Indigeneity of the communities around TWU. The report describes the activities carried out through collaboration between the Division of Chemistry and Biochemistry, the Division of Dance, and the Center for First-Generation Students.

Timeline

We have initiated a number of commitments to the development of a culture of responsibility to the lands we teach and study on. This has meant taking an approach that builds across academic years. Below we unfold a linear timeline of our activity thus far.

Spring 2018: In 2018, TWU's chemistry program was recognized by the American Association of Colleges and Universities (AACU) as a model for how to promote civic learning and democratic engagement [Texas Woman's University, 2018]. Several initiatives led to the prestigious recognition we received. These included our integration of sustainability and green chemistry principles into our courses, alongside our emphasis on how our students enhance their ethical reasoning and engage with their disciplines through a civic engagement. Our Division's shift towards sustainability and green chemistry was also driven by the imperative to responsibly steward the Indigenous lands upon which we reside. Our green chemistry initiatives inspired our students, especially our Chemistry Club, to feel empowered to engage with strategies of care for the environment that also value and respect Indigenous culture and communities.

Fall 2019: Our chemistry curriculum for both STEM and non-STEM majors integrates Indigenous perspectives by providing unique insights that connect

Indigenous culture to environmental issues and sustainability.¹ Through our curriculum, we nurture students to think critically and engage in meaningful discussions about how to address current challenges facing our planet, while considering multiple perspectives.

In addition to our major courses, we have been redesigning courses for all majors (chemistry and non-chemistry majors, SCI prefix), in order to incorporate Indigenous perspectives into our reading objectives, assignments, experiences, and projects. In our Climate Change course, designed for science and non-science majors, students were assigned a group research project focused on Native American, Alaskan Native, Native Hawaiian and Pacific Islander (NAAN-NHPI) communities. Students in the course came from multiple ethnicities and academic pursuits in business, education, psychology, chemistry, and biology. They worked as a team to gain historical knowledge and explore current issues important to NAAN-NHPI communities. The project continued for the entire semester and was presented in a community event. The students also took a field trip to Lake Ray Roberts State Park, where they learned about the Indigenous communities who previously inhabited the land.

Spring and Fall 2020: The Division of Chemistry and Biochemistry and the SENCER Center for Innovation Southwest (SCI-SW) hosted the fifth annual SENCER Regional Symposium at TWU on January 31, 2020. The focus of the symposium was “Citizen Science: The Impact on our Communities by Plastics in our Environment.” In keeping with this topic, we planned the symposium in such a fashion as to minimize the environmental impact, and this led to the inception of the TWU Zero Impact Project (ZIP) under the supervision of Dr. Cathy Middlecamp from the University of Wisconsin and led by the faculty advisor, Alana Taylor, at TWU. From Spring 2020 on, all the events and symposia in the Division of Chemistry and Biochemistry were held in accordance with a zero-impact commitment. This marked the beginning of our effort to embed environmental care principles into our departments’ infrastructures. We fell short by not

¹ Fall 2023 enrollment data reveals that 10% of STEM majors (1000 students) and over one-third of the entire enrolling undergraduate student population at TWU are taking our introductory chemistry courses.

having any presenters at the symposium who discussed Indigenous perspectives; however, this event initiated a conversation about the importance of learning from Indigenous knowledge and including Indigenous scholars and presenters in future gatherings.

Spring 2021: Student leaders from various student organizations and graduate students expressed their desire to establish a meaningful acknowledgement of the Indigenous lands. We recognized the complications of writing a Land Acknowledgement, and so we established a student committee. The student committee created a draft Land Acknowledgement, which was then sent for review to a committee consisting of staff and faculty from across the University who identify as Indigenous. The written Land Acknowledgement is a working document that we continue to craft, as we are aware that it is an important step towards creating a more inclusive and respectful campus environment.

Fall 2021: As a continued acknowledgement of the land, the Division of Dance began an embodied Land Acknowledgement practice in November 2021. Embodied Land Acknowledgement has taken place once a week in the morning from 8:00 to 8:45. It involves picking up litter from the small waterway that runs across the campus. This practice is intended to honor how previous generations cared for the land. It also reminds us to carry on that legacy of being responsible to the land we dance on.

A workshop was organized by the Division of Chemistry and Biochemistry titled “Partnerships to Transcend Barriers to Success for Students and Communities,” to teach us how to build partnerships with the Native communities and learn how to develop these partnerships. The workshop was led by guest Dr. Robert Franco from Kapi’olani Community College in Hawai’i.

Spring 2022: Acknowledging that students come from across the state and beyond, the Division of Dance was interested in how students could use dance to explore how they arrive “here ... in this place ... Denton.” We felt that anchoring dance to local history was key to this. We planned our Dance History course for Fall 2022 in collaboration with the Choctaw Nation, whose recent history includes their relocation to an area an hour’s drive

north of the campus. We collaborated with the Choctaw Nation Cultural Center in Calera, Oklahoma, and with historian Ryan L. Spring. We also visited the Choctaw Nation Cultural Center.

The Division of Chemistry and Biochemistry invited Dr. Mark Griep from the University of Nebraska-Lincoln to discuss how his university is incorporating Indigenous epistemologies into their curriculum. Dr. Griep's presentation was titled "The Sharing Cycle of Science Learning: Connecting Chemistry at Tribal Colleges to Tribal History, Language, and Culture."

Fall 2022: The Dance History course, designed in collaboration with the Choctaw Nation the previous Spring, offered a curriculum that aligned the timeline of dance with the local history of the Choctaw Nation. The class covered the Texas state-required national and international dance history syllabus, but contextualized it within the Choctaw Nation's historical timeline, which also has international significance. On November 2nd, 2022, Ryan L. Spring and Misty Madbull visited the TWU campus to give a guest lecture to the Dance History class. While they were visiting the Dance Department

they also watched a ballet class and met faculty to gain ideas for their Choctaw Cultural Center. Ryan L. Spring also met with 23 TWU student leaders and facilitated a traditional Choctaw decision-making scenario (Figure 1). The student leaders were from across the University and held leadership positions within a variety of student-run organizations. The students were selected by their advisors with the intention of their learning leadership development and community building. An interactive role-playing experience focused on how Choctaw people traditionally made decisions within their community and how we can apply those values to building community today.

During this semester, the Division of Chemistry and Biochemistry joined the Green Chemistry Commitment community, sponsored by Beyond Benign, and pledged to implement green and sustainable chemistry.

Two of our Science core courses, Earth Science and Sustainable Physical Science, were redesigned to incorporate Indigenous perspectives and environmental injustices. Earth Science is a core STEM course that is offered to all majors at TWU. Throughout the semester, students research environmental issues of the Anthropocene and incorporate Indigenous narratives and environmental injustices. They also explore issues surrounding water

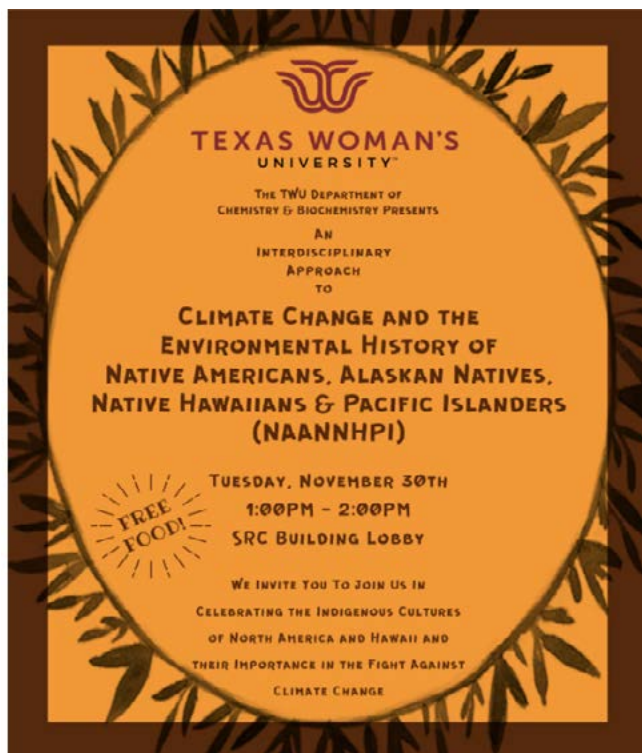
rights through native storytelling by watching Kelsey Leonard's 2020 TED Talk, "Why Lakes and Rivers Should Have the Same Rights as Humans." After watching the video, the students create a presentation that discusses the Indigenous perspective of water in our modern world. Our introductory Sustainable Physical Science course for non-majors includes reading objectives that explore Indigenous struggles and environmental justice. Students are given a platform to explore and discuss the view of Indigenous people and sustainable development as a process that integrates spiritual, cultural, economic, social, political, territorial, and philosophical ideas (Figure 2).

Spring 2023: Using a Creative Arts and Humanities small grant, two faculty from the Division of Dance traveled to Mexico City and San Juan Teotihuacan, Mexico to learn Indigenous (pre-Hispanic) dances for the mountains which filter

FIGURE 1. A flyer sent to student leaders for guest speaker, Ryan L. Spring



FIGURE 2. A flyer advertising the event showcasing Climate Change Students' presentations



the local water. They also collected interviews about the mountains and visual footage of the environment from which the dances emanate. When they returned to TWU, they developed four performance pieces that were presented by faculty and students alongside Danza Chikawa the following semester, April 2023. Ryan L. Spring, Audrey Jacob, and four other representatives of the Choctaw Nations Cultural Center came to Denton from Oklahoma to attend the Friday performance. Reaching out beyond TWU, faculty attended the Indigenous choreographers gathering at the University of California, Riverside, to interview/talk to three Indigenous choreographers about making contemporary dance work derived from traditional Indigenous worldviews. Alongside the April performances, the Division of Dance hosted lectures and workshops at TWU by Danza Chikawa in collaboration with the Division of Chemistry and Biochemistry and the Center for First-Generation Students (Figure 3).

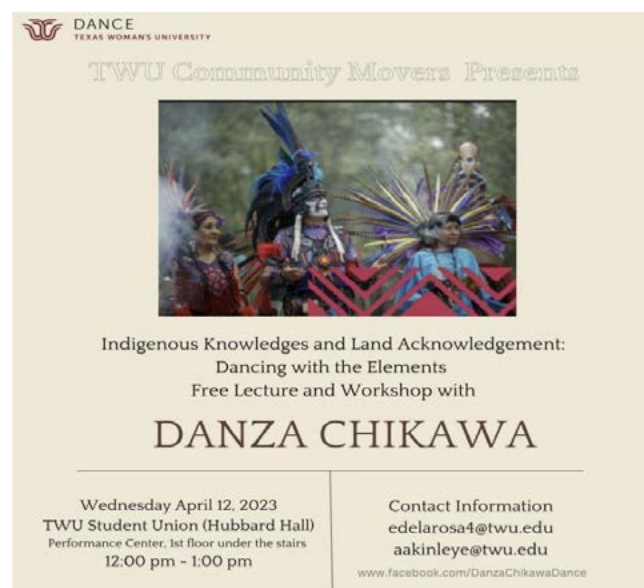
TWU students inaugurated the first "Indigenous Connection Student Organization." The purpose of the Indigenous Connection club is to bring together Indigenous peoples and their allies, to honor Indigenous heritage and create a safe and celebrating space. "The

Organization is for any student interested in Indigenous connections. As a part of the *Indigenous Connection*, we have engaged in Embodied Land Acknowledgement, specifically cleaning up the water source closest to us."

Summer 2023: Concluding the 2022/2023 academic year's work in June 2023 was a community event as part of Global Water Dances (globaldances.org.com), linking sources of water in San Juan Teotihuacan and Denton. This event joined the TWU Denton campus with Teotihuacan: dancers at both sites danced simultaneously and together as part of the global event of Global Water Dances. Three short films were made of this event and accepted by the Global Water Dances Institute as part of the global collection of water dances. We came in July together to write a grant to obtain financial support for future planning, which unfortunately was not successful. This slowed momentum, but we were able to continue to build infrastructure for students and future curriculum. We continue to seek funding while maintaining our activities, including the weekly Embodied Land Acknowledgement and ongoing curriculum development.

Fall 2023–Present: The Division of Chemistry and Biochemistry is part of an NSF-funded project (NSF #2040991), "Transcending Barriers for Success," which

FIGURE 3. A flyer announcing the lectures, workshops, and performance pieces that were performed by faculty and students alongside Danza Chikawa, April 2023.



addresses diversity in STEM fields for the NAAN-NHPI population. We are currently working with eight engaged campuses to identify barriers to the recruitment and retention of NAAN-NHPI students. We continue to develop a sense of belonging to the land on which we study through student activity, ongoing written and embodied Land Acknowledgement, and making strong connections to the communities around us.

We feel our collaborative approach embodies the interconnected worldview and epistemologies of many Indigenous communities. We are sharing this work at conferences and across our academic communities.

Acknowledgments

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About the Authors



Dr. Nasrin Mirsaleh-Kohan is an associate professor of physics and the Division Head of Chemistry and Biochemistry at Texas Woman's University. She is a Leadership Fellow and Faculty Ambassador for SENCER and holds the position of Director for the SENCER Center for Innovation-Southwest. Kohan's research laboratory investigates the interaction between DNA and platinum-based anticancer drugs and applications of nanomaterials, especially carbon nanotubes, and their use in the capture and storage of carbon dioxide.



Dr. Adesola Akinleye (She/They) is a choreographer, artist-scholar, and assistant professor in the Dance Division at the Texas Woman's University. Adesola has been an Affiliate Researcher in Arts, Culture and Technology, and is a Visiting Artist at the Center for Art, Science & Technology at the Massachusetts Institute of Technology, as well as a Theatrum Mundi Fellow. Their career began as a dancer with Dance Theatre of Harlem Workshop Ensemble (USA). For more about Adesola, please visit www.adesolaakinleye.com.



Dr. Becky A. Rodriguez is the Executive Director of the Center for First-Generation Student Success at Texas Woman's University. She draws on her experiences as a first-generation Latina student to create a sense of community for all TWU students. Her contributions have enhanced student success, retention, and persistence at TWU. Rodriguez's pioneering work has resulted in the development of several successful programs, including First-Gen Pioneers, First-Gen Champions, TWU Go Program, and G-Force Work-Study Mentorship Program. She has received over \$1.9 million in grant funding for mentor programs.



Alana Taylor is a lecturer at Texas Woman's University with a passion for science and innovative teaching methods. She earned her master's degree from the University of North Texas and is pursuing a PhD in education and organiza-

tional leadership. Ms. Taylor's research focuses on community resiliency to climate change and identifying practical solutions for building sustainable communities in areas that are facing environmental challenges. She teaches undergraduate environmental and earth systems courses using a transdisciplinary approach and a dynamic teaching style involving personal responsibility and reflection, multiple perspectives, and critical thinking. Outside of academia, she actively promotes science literacy and environmental stewardship in her community.

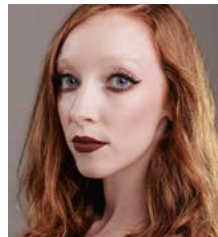


Elisa De La Rosa, daughter of migrant farmworkers, and granddaughter of Mexican immigrants; Assistant Professor of Dance at Texas Woman's University, is a choreographer, performer, dance educator, and the founding artistic director of De La Rosa Dance Company. De La Rosa's research is focused on Dance of the Latinx Diaspora: Pre-Hispanic Indigenous, Mexican, and Tex-Mex dance forms. Prior to teaching at Texas Woman's University, she was a dance educator for 14 years in public schools. De La Rosa received a BA in Dance with Secondary Teacher Certification from Texas Woman's University and an MFA in Dance from Montclair State University.



Raven Gallenstein has bachelor's and master's degrees in chemistry from Texas Woman's University. Her professional journey includes teaching as an instructor and teaching assistant. Ms. Gallenstein is attending Boston College, being fully

funded by the Krell Institutes Computational Science Graduate Fellowship. Beyond academia, Raven demonstrates a commitment to environmental stewardship, for example by being a Watershed Protection Intern.



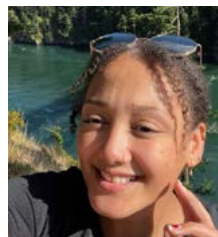
Holly Ann Griffin is a dancer, artist, and musician with a Dance Studies BA and a minor in music at Texas Woman's University. She practices an Indigenous research model, believing that somatic knowledge, spiritual knowledge,

and intuition have a value equal to other forms of knowledge. Above all, she considers dance a form of liberation from oppression through unbridled expression, and a potential and birthright for everyone.



Gillian Hayes is a student at Texas Woman's University, majoring in political science with an emphasis on politics, policy, and public service. She is very involved in student organizations on campus, including as president of Indigenous

Connection, and Student Body President of the TWU Student Government Association for 2024–2025. Through all of this, her main goal is building community with people from all walks of life.



Kyndel Lee is an artist, performer, teacher, and choreographer from Dallas, Texas. She connects environmental psychology to dance to educate and advocate for change by elevating unheard voices worldwide. Kyndel has been performing

dance works for over 15 years, ranging from seven years of drill team and studio training to dancing in the Collin Dance Ensemble, a contemporary modern dance company under the direction of Tiffaniee Arnolds, from 2018–2020. She has a BA in dance from Texas Woman's University.



Dr. Richard D. Sheardy is Cornaro Professor of Chemistry and Biochemistry at Texas Woman's University. He teaches freshman and biophysical chemistry and continues his research focusing on the structure, stability, and ligand

binding properties of unusual DNA conformations to learn more about the molecular basis of cancer. He has mentored multiple faculty, graduate, and undergraduate students at TWU. Sheardy is Conference Chair for the North American Calorimetry Conference and is a SENCER Ambassador. He has organized many symposia at regional and national conferences on nucleic acid biophysics and science education reform.