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Mountain views surround US 97 as it descends toward Toppenish, Washington, the Yakama Nation Tribal Council headquarters. Construction of roundabouts on this busy route improved safety and inspired a resident—and TRB volunteer—to create an artistic concept of transportation's impact on Native American communities.

ransportation professionals measure their work in multiple ways. They track traffic volume, monitor pavement conditions, and collect data on everything from crash fatalities to bus ridership. When gauging how roads, rails, or runways affect the societies they run through, however, the numbers often paint an incomplete picture. To illuminate the impact of transportation on tribal communities, the TRB Standing Committee on Native American Transportation Issues<sup>1</sup> took an imaginative leap last year and announced a Call for Artwork. The competition reflected the committee's focus on highlighting and supporting transportation research that benefits people within tribal communities while balancing preservation

with improvements. With that in mind, the committee solicited artwork that innovatively portrayed the role of transportation in a community or culture or to communicate a need or good practice.

The winners—HollyAnna Littlebull, member of the Yakama Nation, assistant director of the Northwest Tribal Technical Assistance Program Center at the University of Washington, and TRB volunteer, as well as artist and educator Lyle Miller, Sr., of the Yankton Sioux tribe—merged art and transportation to depict the effects and benefits of a diverse and equitable transportation network. Both presented their submissions at the committee's meeting in January 2023 during the TRB Annual Meeting in Washington, DC. In interviews about their artwork, Littlebull and Miller discuss the themes of preservation and progress, healing and discomfort, and connectedness and teamwork on display in their compositions.

<sup>&</sup>lt;sup>1</sup> Learn more about the TRB Standing Committee on Native American Transportation Issues and how to get involved at https://sites.google.com/ view/trbame30.

# Roundabouts and Circles of Life

"Wheels represent health, spirituality, well-being, and life in general—not just transportation," Littlebull explains about her submission, *Circular Medicine Wheel*. "Tribal people are considered nomadic people who travel to get natural medicines and meet with family and friends."

The composition features an inner ring of black, red, white, and yellow bands representing the four cardinal directions and the alignment of life's spiritual, physical, and emotional forces. Colored dots under each feather represent land, air, water, and fire. "We rely on land for food and air to breathe and carry dreams. The water is sacred throughout the land," Littlebull notes, adding that "these also cover our routes of travel."

Littlebull, who in 2022 served

as the traffic safety coordinator in



Risdon Photography

HollyAnna Littlebull shares the inspiration behind her artwork, Circular Medicine Wheel, during the 2023 TRB Annual Meeting in Washington, DC. Her winning compositionsubmitted in response to the Standing Committee on Native American Transportation Issues' Call for Artwork—reflects lessons learned as a Yakama Nation traffic safety coordinator using research to guide leaders and transform dangerous roads.

that year by the Yakama Nation and the Washington State Department of Transportation, which transformed "the deadliest intersection on the reservation into one of the safest" (1).

Also represented is the disparity in transportation funding for tribal lands, depicted

as the thin, black
outer circle in
Littlebull's artwork. Yakama
Nation has

the state's

number of crash fatalities and pedestrian injuries (1), yet "funding goes to

highest

cities, where the most people are," she observes. "By the time it gets to the rural areas, there is not much left."

Littlebull calls on tribal communities to be proactive and use their strengths to control the future of transportation on their lands. "Reach out and put a story behind the data," she urges. "Tribal communities are good at telling stories and should be able to back it up with data, which we are getting better at. We have to be able to tell those stories to make sure that people don't overlook our communities."

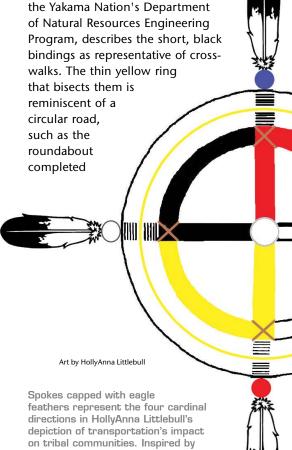
Littlebull also sees a vital role for researchers, highlighting lessons from the Yakama Nation's roundabout installation. "The tribe wasn't really willing to use the roundabout at first, but we used data that [showed that similar projects elsewhere] reduced fatalities and injuries," she recalls. "The research helps prove things that work and are

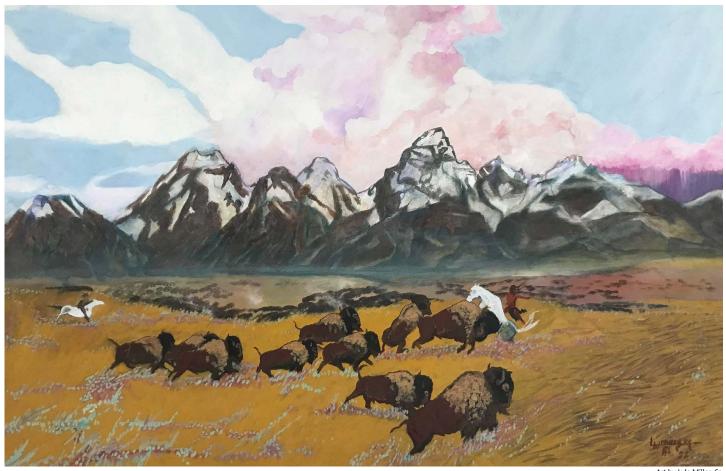
feasible." In this case, the process included looking at best practices, seeing what others were doing and what worked for similar communities, and then using that information to persuade the tribal council—which approved four more

roundabouts (2).

## Progress and Tradition

The other winning submission, *Riders Hunting Buffalo*, depicts hunters on white horses adorned with Native American symbols and chasing a herd through grassland. "The painting is the interpretation of what I have seen in a moment between sunup and sundown," explains artist Lyle Miller, Sr. "It is about progress, what goes on during the day, and what





Art by Lyle Miller, Sr.

A besieged herd thunders across the grasslands in Lyle Miller, Sr.'s Riders Hunting Buffalo. The Yankton Sioux artist welcomes progress but laments its toll.

is happening on the land and in the sky." Miller points out that before the horse, the Lakota Sioux relied on the dog for moving camp, carrying wood, and other aspects of daily existence. However, the mobility and speed of horses enabled them to hunt buffalo and cover great distances to gather resources.

Towering in the background of his piece are dark mountains and a vibrant pink, blue, and white sky. Miller remarks that viewers should see the cycle of movements captured in his work as reflecting how each day begins and ends. He considers buffalo and the sustenance they once provided as critical to progress, a chapter in history he sought to display. Despite the material advances derived from these buffalo hunts, however, Miller laments the impact of transportation on animals, people, and the environment. The buffalo hunt no longer exists, and progress came at the

cost of intense disturbance (3). He urges transportation researchers to "keep this image in your mind when creating things to try not to disturb any more of what nature is all about."

## **Enduring Themes**

The artists were asked about diversity, equity, and inclusion in their work and the importance of these concepts to tribal communities. Miller shared his appreciation for the committee's Call for Artwork and the honor of having Riders Hunting Buffalo selected. Littlebull praised the cooperative nature of solving transportation challenges, which invites people to "come to the table to fix problems," she notes. "We are working together. We know there is inequality but are working as a force" to improve matters. For example, Littlebull and her colleagues at the Northwestern Tribal Technical Assistance Program

Center are partnering with Eastern Washington University and the University of Washington to identify problems in Indian Country. They are also attending conferences and participating in training to learn what works and taking solutions back to the reservation.

Littlebull connects the group effort of finding transportation solutions to themes in her artwork. The brown cross-tie bindings, for example, represent teamwork. "You have to have a good team and work together. You can't solve all these issues by yourself. That's why we have the pilot project with STAR Lab," she says, referring to the Smart Transportation Applications and Research Lab at the University of Washington. The lab works in a formal partnership with the Yakama Nation to capture and visualize safety data, informing tribal decisions to direct transportation safety resources where they are most needed (4).



Contest winner artist Lyle Miller, Sr., demonstrates his detailed brushwork on another of his paintings. He is a frequent participant in Grand Teton National Park's annual American Indian Guest Artist Program.

BK Appleby, National Park Service

Littlebull acknowledges the legitimate concerns and hesitancy of tribal communities regarding transportation research and projects. The tribal council "has been slow in coming around to allowing research because they've been researched to death," she says. Past injustices—such as the forced assimilation of Native American children into U.S. government-funded boarding schoolscan make it "hard to get tribes to work with research," she adds. "But we have slowly been able to show that we get to help dictate how that research happens. It is important to show how tribes have positive outcomes and experiences" when they can determine what happens. Littlebull has worked with crash-trauma patients as an emergency medical technician, firefighter, and police officer. She credits her experiences with shaping her perspective on transportation research. "It is a big change to be proactive and get to make positive changes to those things that I used to see as a first responder," she reflects. "Others can do it, too. That is an important message of the circular wheel."

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