

Department of Physics & Astronomy



Traveling with the stars: Extending our reach with the new portable planetarium

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The William J. McCallion Planetarium:

The McCallion planetarium at McMaster was established in 1949. McMaster and the McCallion are situated on the traditional territories of the Mississauga, Haudenosaunee, and Anishinaabe Nations, and within the lands protected by the Dish with One Spoon Wampum belt. That wampum uses the symbolism of a dish to represent the territory, and one spoon to represent that the people are to share the resources of the land and only take what they need. We are privileged to have our planetarium on these traditional lands and to be welcomed into communities with our portable planetarium. As part of our responsibility to reconciliation and decolonization, we appreciate the opportunities to collaborate with Indigenous scholars and communities.

Successes

We have:

- taken the beauty of astronomy to communities who normally would not have access to it
- used our equipment
 as a vessel through
 which Indigenous
 communities can
 share their night sky
 culture
- grown the network of people interested in the planetarium
- modeled increased astronomy outreach in underserved communities

Challenges	Common questions
 Some challenges are: the technical capabilities of the software at times being overwhelming extensive time and financial investments for each trip ensuring people don't touch the dome finding space large enough to house the dome physical demands to move and set up/take down the equipment the booking process of trips with the planetarium 	 What is the dome? Is it a bouncy castle? How much does it cost? Who can we contact for more information? Can we plan a visit to our space or event? How long does it take to set up? Can we watch you deflate it? How long have you had this? How many shows have you done? What astronomical phenomena can we see in the software?

Co-creation of *Celestial Bear* shows:

We started collaborating with Indigenous scholars Tom Deer, David Moses, and Dr Rick Monture in 2014, with the launch of the *Celestial Bear: The Six Nation's Night Sky* show at the end of 2015. An important point for all at the beginning of the project was to establish co-authorship of the project. TD and DM retain copyright of their materials, and McMaster owns the electronic files and rights to use them in planetarium shows. Six Nations community members have commented how the show validates their sky lore; feedback from members of the general public have appreciated learning about both the sky lore and the Six Nations' languages.

Co-creation of portable shows:

Planetarium presenters operate the software while Elders/Knowledge Keepers share information and stories - which can either happen spontaneously or can be formatted and rehearsed in advance.

Number of shows (July 2022-April 2023)

Total shows

Celestial Bear shows



)	McCallion	Portable
	290	43
	36	10



McMaster University's portable planetarium is committed to bringing the magic of the universe to underserved and underrepresented communities