Frank Dempsey—Astronomer Enthusiast and member of a First Nation

Frank Dempsey is an astronomer enthusiast that shares his personal experiences and knowledge throughout this interview. Belonging the Dokis First Nation, Dempsey discusses the relationships between astronomy, Indigenous knowledge, and Western knowledge. The interview concludes with talking about what ethnoastronomy means and the upcoming 2024 solar eclipse.
Interviewee: Frank Dempsey (FD)

Interviewers: Alannah Graves (AG), Hope London (HL), Trenton Nelson (TN)

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Location: Zoom in Kulin Center, Bowling Green State University

[Note: Some tangential discussion from the audio file has been omitted]

[START OF INTERVIEW]

AG: [00:16:53] Okay, okay. Well. Hi Frank, it's nice to meet you. I'm Alannah Graves. I am a second-year master student…Would you like to introduce yourself? Give us a little bit of your specialties before we get into the interview.

FD: [00:17:35] Well, sure let me tell you. Since we're talking about astronomy, so I'm I could mention that I'm I've been an amateur astronomer all my life. That's it. See past a half century, still very active with astronomy. So happens that my master's degree is in astronomy. But that implies some view degree of professionalism. But I'm not. I've never been working. Employed as a professional astronomer just for a bit further background. I'm a retired meteorologist and my job was in meteorology, air, quality, and chemistry. So that's a little bit about me. But I've been looking at skies [?] all my life. I think that's the main point that concerns you. And of course you are aware that I'm indigenous member of First Nation, which is in Ontario, basically on the east side of Georgian Bay, of Lake Huron. Of course you guys are close to Great Lakes. But anyway, yeah, I have some idea where I am in Ontario. So that's a little bit about a little bit about myself.

AG: [00:18:37] Oh, thank you. That's really interesting. So we happen to know that you've observed several eclipses. What took you into the path of eclipse chasing? And if you wanted to. How could you link that into your indigenous identity?

FD: [00:18:52] Well, it doesn't really connect with my indigenous identity, because the first eclipse I saw was just fairly well understood that for for anybody interested in astronomy and sky stargazing A total eclipse as a sun is a very rare, very special site. Try to see, if possible and the first one that I saw was in Baja, Mexico in 1991. Now was relatively nearby in terms of not requiring travel to other side of the world, or whatever was relatively easy. Because A local astronomy group in Toronto, near Toronto. Here, organized a 40, 48 hour long charter flight from Toronto to part of Mexico, and then a bus trip down to the spot in southern Baja Peninsula, where we saw the eclipse, then back. So the 48 hour trip made it relatively low cost and

affordable. So that's when I went. So that was my first eclipse as I said, was because of the astronomical interest, because it was renowned to be a very rare and special site for astronomers and stargazers to want to try to see sometime in their lifetime, so I took advantage of it. After that, had an opportunity to get it to a few more eclipses, but that was the first one. That was really nothing at all to do with. My indigenous, indigenous background. But the answer to the question is, I got involved in it just because it was known to be a special site for astronomers, and it was relatively affordable and easily possible to get to that eclipse.

AG: [00:20:26] Oh, thank you. Yeah. And the reason why I asked about the indigenous part is because I happen to read an article about you. Speaking on, on a reservation about meteorology. And so I was just wondering if it connected to that. But, anyways, how would you describe the experience of seeing an eclipse in person? Is it exciting? Is it awe inspiring? How would you say?

FD: [00:20:51] All inspiring has to describe it. It's not just an astronomical site of the sun disappearing and and various features of a on appearing only during a total eclipse. It's vastly more than that. It's it's practical when I view it in a natural outdoor environment. And the best example was one in 2,017 which I saw in Wyoming. But that was so viewed in a natural environment so very natural very unusual thing to to feel and see and watch an experience when all of nature is built into it. That is to say, temperature is dropping, sky is darkening all creatures, birds, crickets are quieting down so it's very surreal experience. So that's how I would describe it.

AG: [00:21:41] Thank you. It's really feeling it. Yeah, okay. No, thank you, I don't need to cut you off. I'm sorry. I think the connection might be fading in and out a little bit.

FD: [00:21:55] Yeah, I wouldn't be surprised if I'm getting a floppy signal. But if if if you lose me, just let me know, and I could repeat something if I if you missed something, I said.

AG: [00:22:06] Okay, thank you. So going off of that, do you happen to have a favorite eclipse story that you'd like to share with us.

FD: [00:22:13] Well, I think the, the funniest thing that happened was on the very first eclipse the the other few that I've seen in Caribbean Island and Sahara desert in Libya. About a decade ago. We're we're relatively straightforward because we're with a bunch of astronomers, and was a relatively straightforward event. But the one in Baja Mexico was funny retrospect wasn't so funny, but in the middle of eclipse should have been the rarest moment of A few moments of total eclipse. The Mexican navy had a big ship off the coast, and they started launching fireworks right in the middle of the eclipse, which we thought was pretty darn strange, pretty funny in retrospect. Wasn't so funny because the the cultural response has has been for people to go outside and make noise, to scare away the demons that are eating the sun in their mythology. And so you see a lot of native responses being to stay indoors. Don't look at the eclipse or go down the hilltop and make noise with banging pots, pens, shooting guns, etc., to scare away the creature that's eating the sun. So but that was I didn't realize any of that when I was there for the first time. So it was just a funny thing to to see that we're everyone's staring at all at the central part of eclipse, and then fireworks were going off. So that was rather funny.

AG: [00:23:43] Yeah, I'm sure that was a really unique experience. I don't know how I would handle that. I think at the beginning I would be like, 'Oh, my God! This is so cool!' And then, 'oh, my gosh! What is all this noise?'. So moving into our next question, have you talked to the past about indigenous knowledge of astronomy? And you identified belonging to the. I'm so sorry. If I mispronounce this, if you could correct me, I would, I would appreciate it. Is it docus first nation?

FD: [00:24:12] They pronounce it, Dokis.

AG: [00:24:14] Dokis. Okay, thank you. How have you learned about native traditions? I know you just touched on the ones at the last eclipse you saw in Mexico. But are there any other traditions?

FD: [00:24:26] Well, the the if you wanna know how I learned about traditions, I have to say, is totally or 99% by reading books, books and a few journal articles and archeology and other history documents, but mostly books. Is what I how I've gained knowledge. And I said, 99.9%. I could say that. I started off by hearing from several uncles when I went to visit the reserve. When I was a child or a young teenager, maybe, and they knew that I had some interest in astronomy. Those those uncles, mother took us to a visit back to her home to visit the her reserve, and other family, and so on. I'll tell you a couple of things that one of the uncles, for instance. We were looking at the stories, and he told me, one of one of the indigenous legends about the constellation or Star group that we call the Big Dipper, probably the best known Star group, but anyway, told me a legend about it. And then, later on, maybe the next night I was mentioning it to another uncle, and he said, 'No, no, no, don't listen to him. He doesn't know what he's talking about. I'll tell you what really happened', he told me a different legend. And so after that I became aware, years later, when I started to read about it, I started to realize that there are different legends across parts of Canada where I am. But North America in general, in fact, is a huge number of legends that are all based on the local geography and topography, and then local environment. And so I realized that that case that one of the uncles may have gone to. Of course they're long gone. I can't go back and ask them, but may have gone to say a lumber camp in Northern Quebec somewhere to work, and he heard these legends that were more based on the Eastern Canada indigenous interpretation of that particular constellation. Whereas others and other parts of Ontario were more in line with interpretation or creed. Northern creed interpretation. So I realize because of those uncles mentioning different versions of the same legend. There are quite a different lot of variations. And so I started to read about it. I realize they're quite a lot of books and and some journal articles about subject of indigenous astronomy, so that the answer to your question is, I've I've gained all my knowledge from reading.

AG: [00:26:44] Thank you. And then to follow up with some points you made in that question. What are the major differences between indigenous. Sorry, indigenous, and Western astronomical, astronomical knowledge?

FD: [00:26:57] Yeah. Some big syllables are, you know, so so in indigenous astronomy is precip particularly begins and ends with a visual observation of the sky. And Western astronomy is based on a lot of mathematical interpretations which date back as as far back to origins from the Babylonians in Middle Eastern history they eventually passed it on to what we call a Greek

astronomy, which was the foundation of so called Western astronomy. And so that's European astronomy. And that's fine, because it does a really good job of explaining the physical equations, mathematical equations that explain the motions of a celestial body bodies and other other things going on in the sky, and all of astrophysics. That's fine. There's a good job with all that. But indigenous astronomy is particular. Only for visual astronomy. So it goes to the limit of naked eye visibility, and some some features that can be seen by eye only. You know, might say, stars, planets, brighter planets, that is all of all of the phenomena of of the sun and moon's motions, meteors or stuff in the sky. That sort of thing, whereas western astronomy is vastly deeper, with much more and what we call astrophysics nowadays.

AG: [00:28:21] Thank you. And then in this podcast we have a strong interest in history of emotions and eclipses. Are there any particular emotions associated with eclipse event in native traditions? Or how does this influence your emotions of seeing a solar eclipse.

FD: [00:28:38] Yes, it's very interesting question, because especially in the last eclipse I saw in 2,017 in Wyoming. It was a very natural area, because first we had our first choice had traveled to a campground in Nebraska. I think it was Grand Island, Nebraska, and it was right on the central line of the eclipse, and it was a big Ka campground and Local Astronomy Club had publicize. This is a great place to be, and so the campground was full of people who had reserved this a year in advance, and so on, and so was like the other clips that I've gone to where it was a lot of astronomers all around place. But the the day before I decided better head to somewhere where the sky will be clear set of party. Cloudy so went westward to Wyoming, and what found the road that went northward and cut across eclipse paths. And coincidentally it was straight north of Denver, Colorado. So it looked like a lot of people. Population of Denver, Colorado, had heads done the same idea, drove straight north quite a few hours into Wyoming. Back onto this road probably found other roads, too. But so this road was out in the middle. Nowhere it was in a very natural environment. No, you know, tall skyscrapers around block the view of anything. And there are a lot of people seeing the clips for the very first time. They weren't astronomers. There were people who were decided travel travel for a few hours to see this rare event that was well publicized in 2,017. But back to the emotions. It was, really alive with emotions, because the natural environment was very clear, with cooling air temperature. The birds and all the natural creatures were quieting, quieting down, and the sky was darkening. It was very natural way to view and experience the clips, and so the emotions there were in full blast. And so I really really felt the the onset of the eclipse, and it really felt like the the many indigenous another worldwide cultural explanation for the for the clips with a creature eating the sun and causing it to disappear. And it was especially apparent when the clips first began. The the total phase began, and I was looking close to or through my telescope at the time, but I heard a huge cry of wow! From a good mile up the road all these people on the side of the road lined up on the side of the road, and they really responded to their natural instinct, saying, ‘Wow!’. Well, it made more of a sound. That's where I looked up, and I realized was a little bit early to look with with I needed eyes at the clips at that point, but it was a really natural feeling that I could see was affecting the many thousands of people up the road as well. So that was a really strong emotional eclipse. I'm looking forward to the next one in the next April, experiencing that same way, finding finding an environment that's really wide open to the natural breezes and trees and creatures all around, and not bothered by cities or other artificial interferences and experiencing same thing again. So I

think the main answer to your question is that it's a very can be a very strong emotional impact. And that's the best way to experience the clips.

AG: [00:32:05] Thank you. And actually, you answered my next question about what you're most looking forward to in the next eclipse. So I was going to move on to our last question, which is, what does ethnoastronomy mean to you?

FD: [00:32:17] Well, selecting astronomy? it means, it means to me the interpretation of astronomical phenomena in the cultural natural background of the people wherever they are in the world, wherever they are in North America, Great Lakes, Syria, or anywhere. The interpretation of phenomenal in in terms of a local cultural beliefs is vastly more interesting than just a celestial mechanics, physical laws, and mathematical equations that describe motions of celestial bodies or rainbows or thunderstorms. And so to me, ethno astronomy is the very interesting interpretation of astronomy observations in terms of the local beliefs. So that's it's a vastly different picture than Western astronomy.

AG: [00:33:07] Thank you. So yeah, that's that's pretty much all the questions we've sent to you and have. Is there anything else you'd like to touch on that? We didn't necessarily ask you throughout the interview.

FD: [00:33:18] No, I think I you've given me a good opportunity to to point out the major features of the eclipse that I think are important to to recognize and take forward that is to just repeat it, just to enjoy anybody. Any of you who decide to go to see the eclipse, and 20 24 or anybody listening. Please. Find a way to enjoy it naturally. So that's my main point. It's a vastly more valuable eclipse than say, watching it on television or whatever. So that's my only point. I wanted to be emphasized.

AG: [00:33:53] Thank you so much.

[Note: Some tangential discussion from the audio file has been omitted]

[END OF INTERVIEW]