# Tom O'Grady Interview—Astronomy Assistant at Ohio University

Current professor of Astronomy at Ohio University, Tom O'Grady uses his expertise to give more insight into the history of Tecumseh's eclipse. O'Grady discusses his own personal experiences with eclipses and provides historical facts about the history of watching these phenomena. An in-depth conversation about Tecumseh, his brother, and how individuals may have reacted to the prediction creates an engaging topic. The interview concludes with conversations about traveling to see the upcoming solar eclipse, and what it can mean for larger cities.

Interviewee: Tom O'Grady (TO)

Interviewers: Nick Bowers (NB), Becky Brown (BB), Amílcar Challú (AC), Hope London (HL) Alex Eckhart AE)

Date: October 6, 2023, and October 25, 2023

Location: Zoom in Kuhlin Center, Bowling Green State University

[START OF INTERVIEW]

**TO:** [00:00:25] My name's Tom O'Grady, I work at the Southeast Ohio History Center in Athens, and I teach astronomy at Ohio University in the evenings for the last [inaudible] years.

**NB:** [00:00:46] Well, it's wonderful to meet you. Alright, so I'll start off with a question here. How did you become interested in Tecumseh's eclipse and eclipses in general?

**TO** [00:00:48] Well I, I saw my first total eclipse of the sun in October of 1977 in Columbia, South America and kind of got hooked. So I've been chasing the moon shadow now for 40 some years. I've seen 7 total eclipses of the sun 1 annular eclipse of the sun. And so it's hard not to be aware of Tecumseh's eclipse.

**NB:** [00:01:22] Why do you think the Tecumseh eclipse, in particular is so important in the narrative of Tecumseh's war?

**TO:** [00:01:33] Well, Tecumseh was trying to protect lands that he was inhabiting. He and his groups had been pushed repeatedly further and further from the East into Ohio, and and all the agreements that have been made in the past have been—all the agreements have been broken. And so, he was trying to organize a confederacy of Native American groups and that appeared to be a threat to William Henry Harrison, who was still working on trying to acquire land from native Americans. And so, I guess, by being able to call this eclipse ahead of time, he gained some street cred, as you might say, with the neighboring Native American tribes. That was important when trying to build that Confederacy, especially when he was challenged by William Henry Harison specifically to demonstrate some sort of power, some special ability.

**NB:** [00:02:54] Do you have any knowledge of something like this happening before where an eclipse is correctly predicted, and they drive a lot of power from it?

**TO:** [00:03:04] I wouldn't say I know of any examples of anybody manipulating an eclipse to gain an upper hand. There's a number of examples previously of people knowing about eclipses as early as around 1715 or so. Edmund Halley in England was charting out the paths of the Moon shadow. And in 1780, a fellow from Harvard, Samuel Williamson, plotted out a path of totality through Penobscot bay up around the main area and went up there with the equipment to observe the eclipse and that was during the American Revolution. And to get access to that space, it was being held by the British at the time, they had to ask for permission, and so John Hancock penned a letter to the leader of the British forces asking for safe passage for this group. Their argument was that what they might discover could possibly have positive benefits for all humanity. I guess you could say there was a little bit of manipulation there. So even during the American Revolution, the British authorized these colonists to go up there and set up shop, try to observe a total eclipse of the sun. Unfortunately, they mis either he miscalculated the path, or he claims that the people who made the maps he was using, made errors on their maps. Anyway, it wasn't, it wasn't a banner day in Harvard history, but it is a significant event. With, with the regard to eclipses, the 1806, Tecumseh wasn't the only one who was aware of it. John Quincy Adams and some folks over in Boston gathered together to watch that. There was a Spanish astronomer Jose Joaquin de Ferrer, who was in Kinderhook, New York. I don't know that he came here specifically to observe that eclipse. But he witnessed it, and when he saw it, Eve remarked about the outer atmosphere, that sun that became visible during totality, and he called it a Corona, Spanish for crown, and that has, that stuck. It's one of the few Spanish terms we use in science to to describe something instead of using Latin or Greek or English. So there were people who knew that these things happen. But actually, using it to gain power that might, that might have been a unique situation.

**NB:** [00:06:11] Fascinating, thank you. How do you reckon this eclipse tied back into spiritual beliefs of these different tribes. Why was it? Why was it so important to them in particular?

**TO:** [00:06:24] Well, I don't know what level of importance it was other than Tecumseh and his brother. predicting it ahead of time to gain and to sustain any level of credibility. I'm not aware of what native Americans thought previously about eclipses. I'm not sure how much information and they had about that.

**NB:** [00:06:58] Do we have any idea how Tecumseh and his brother were able to so accurately predict this eclipse?

[LOST CONNECTION, END OF FIRST INTERVIEW]

[START OF SECOND INTERVIEW WITH TOM O'GRADY]

**NB:** [00:02:06] Alright. Well, if you don't mind, I'll just pick up where we left off in terms of the questions. We were about halfway through. Some of these might be a little redundant, but just

covering the again, because it's been a couple of weeks obviously. Alright, so just to start off. Do we know how Tecumseh and his brother were able to make such an accurate prediction about the coming eclipse? Do we have any information about that.

**TO:** [00:02:32] You know, I looked into that. And I, I think that's a real sketchy area. He traveled a lot trying to put together his confederation of tribes to try and stop the continued loss of of native lands to settlement. And in doing so he met lots of people on the road. My understanding is, he got along quite well with with since this eclipse was occurring there had to be some people who were aware of it there. I don't know if I mentioned, but there was a fellow named Joaquin Ferrer, who was in Kinderhook, New York, and he was of Spaniard. and I don't know if he came over here specifically to observe the eclipse. but he was aware of the eclipse. He saw that eclipse, and when he, when he saw it when he saw the corona around the outside of the dark side of the moon. There he remarked, and called it the cor, the Corona, the outer atmosphere, the sun, and it it has continued to be identified by that word or that name ever since then. And John Quincy Adams. I, I don't know if I mentioned him either, but he he was somebody who observe that in in a a garden in in Boston, and quite a few people got together in Boston to watch that very same eclipse. John Quincy Adams took, went to Harvard, and when he was in Harvard. He took choruses by a fellow named Samuel Williams and Samuel Williams had gone to up into Maine, and cause the path of totality that in 1780, when across parts of Maine and Pennos, Scott Bay, and he wanted to go out and observe it, and that was held that territory was held by the British, so he had to get permission to go up there. And so John Hancock penned a letter to the leader of the British forces to obtain that permission. and his argument was that they may discover things by observing this that have benefits for all of humanity. So right during the American Revolution people worked out a deal for issues of peace. and he got up there, and he came up short on the path of to—either. He, he, of course, blames the Map Makers for making faulty maps. The map makers, of course, blame him for miscalculating his path of totality. But people have been calculating these things since. You know, Edmund Halley was doing it. Background 1715, in England. And and here's Williamson. He was doing it, and one of the things if you read John Quincy Adams diary. He has drawings in there of eclipses that he was required to predict the path of in his in his student work. So it's not something that was as strange, probably, to everyone as it was to William Henry Harrison, who challenged Tecumseh and his brother, and it wasn't probably as strange as was to the native Americans who. whether they had ever experienced this or not before. And it's it's unlikely they had to be able to call that some time in the future. You know. We don't know how he did it, but and I have not seen any particular information about says that, said ‘Tecumseh found it out here, and he told his brother’, and his brother, of course, is the one who hold in it, cause he was the prophet. He was. The open door is on. It, could foresee these things, so he didn't have the power of being a great warrior, but he certainly had the reputation of having visions. So no, II think that that question remains unanswered, at least in my experience. we don't know how we found it out.

**NB:** [00:06:45] Okay, so building off that a little bit you mentioned about the other native Americans? Maybe not experiencing something like this. Is there an idea of how other tribal leaders viewed him and viewed this prediction.

**TO:** [00:07:02] I'm a little hard of hearing. Could you run that one by me again?

**NB:** [00:07:05] Oh, you're good! Is there an idea of how other tribal leaders immediately reacted to this prediction coming true?

**TO:** [00:07:16] My understanding is that any sense of doubt they might have had about Tecumseh, and his brother was was way late at that moment. I mean, if you're not gonna hear about this thing on the 6 o'clock news, and then somebody calls it. And it actually happens. Why would you ever doubt anything that that person says again? And so and I see that a lot. I mean, I've looked into the earthworks in Ohio. And a lot of them are built in alignment with the 18.6 year cycle of the moon, which is a cycle, you need to understand, to be able to start to think about when eclipses might occur, when the paths of these objects might cross in the sky. And you know, if if if you think about how much earth they had to move to build these things like some of the earthworks in Newark, Ohio. Some of these walls are 15 feet high, 40 feet wide, and 500 feet long, and there's a lot of them that's a lot of baskets you lot gotta leave, and a lot of soil you have to move. But if if somebody said there was, the skies were going to darken at such and such a point between sunrise and midday. And that's not part of anybody's experience, and it's also involving what they might consider an important deity in their society. If that actually happens. you don't question probably people like that. You start weaving baskets and moving dirt. So I have to imagine. And I haven't really seen any descriptions of what, what particular tribal leader, or anybody, whoever did any particular thing. But I know that it left William Henry Harrison. you know, empty-handed for a while, and he wasn't expecting it either. So, but as far as what their reactions were, my my guess is. we could almost imagine what that was like, but I don't. I've never read any descriptions about who said what I haven't even seen, what, what William Henry Henderson's particular reaction was to the event, because he sent his letter at 1 point, and then the the event happened some 50 days, or longer, later. So and and nowadays you'd have somebody right there interviewing, ‘Well what do you think of that? You know Tecumseh and his brother, they called that one, didn’t they? What’s your reaction?’. And so unless some of these people wrote some of this stuff down, II think it's a little hard to track it down.

**NB:** [00:10:01] That makes sense. So final question here. Why do you feel it's important to teach the public about eclipses, and particularly Tecumseh’s eclipse? Why do you think that this is something that people should know?

**TO:** [00:10:14] Well I, I don't know how much I feel like they should know it. I think it's one of those things where I think people want to know this stuff, but they don't know they want to know it. Because I run into plenty of people who tell me they, they're not interested in history, or they even hate history, or they're not interested in science, or they hate science. And I believe I was one of those people once upon a time. But when you hear these stories, if if they're put together

properly, or if you find out these particular phenomena that occur in the world around you. If you actually experience it or work and find out abouth ow it happens and why, and and it's not put to you in some sort of technical fashion. People go, ‘Huh. That's interesting. I'm glad you told me I didn't know that’, and, that's what I believe I find out, especially with regard to history. But I think if it's the same in science, if you can, if you can share it with people, the right way that people love these stories. People watch movies about all kinds of historic eras and times and stories, and they love it. But then they don't like history, they say. And I believe it's, I believe it's how they feel that it's presented to them. And you know, I just think these there's so many amazing hero and heroic stories that that make up who we are as a society and and as a world of people, that if we can get at the people in a digestible form. They'll consume it,100%. But the challenge is to is to package it properly. And so I happen to be working in a history center, and I happened to have been teaching astronomy for the past 40 years. I've I've visited—I've stood in the moon shadow 7 times. So I know it's how exciting it is and to see that it's connected to some event in American history and in Ohio history. I just think the connections are great. You know I've, I've studied a lot about John Quincy Adams, and I was amazed to find Adam. So for me it was just putting pieces together that I knew I knew about the term Corona. I didn't know it was connected to this particular eclipse and I don't know what. For me, it's exciting to me, I guess that's it and so if I feel excited about it, I just want to believe other people want to know this stuff, and my challenge is to try and put it together in a story and and share it in a way that hopefully they'll be interested in it. And so far I've I've had some good luck with that matter of fact. That's how I teach astronomy. I'm not a scientist, I'm not an astronomer. But you know, when I learned that stuff I was, I thought it was stupid up to a point, and then once I learned it, I thought, well, it's not stupid anymore, It's really cool and that goes with certain aspects of history. Well, I thought history was stupid till I learned it, and then I thought, ‘Wow, that's fascinating’. Then I just wanna tell people about it, so I don't know. I think you know, as a historian you probably know that that old added people don't know where they've been. They'll have a hard time plot a path forward and and I think that's important. So I think the more we can learn about that, and the more we can connect it to other aspects of our life in a present. That's a good thing, I mean eclipses. This was Tecumseh's eclipse. It was at 200 and some year ago event. Yeah, well, here comes again. So it, you know, today is just tomorrow's history. So and I think there's opportunities to help get that kind of point across to people when events happen. It's still it's still months out in the future. But it's gonna have been part of history 6 months from now, and people be looking back at it, and they'll be in the books, and and there's an opportunity for people to participate in it and experience it. So I don't know if that answers your question, but it's all over the all over the table there.

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

[END OF SECOND INTERVIEW]