**Pam Ferris-Olson** (00:00): Today on the Women Mind the Water Artivist Series, I am speaking with Marie Maltais. Marie is the director of the art center at the University of New Brunswick in Fredericton. In addition to overseeing the center's collection, she pre notes that role of art in understanding the contemporary world and its role in the exchange of ideas and knowledge. The Woman Mind the Water podcast series engages artists in conversation about their work and explores her connection with the ocean. Through their stories, Women Mind the Water hopes to inspire and encourage action to protect the ocean and her creatures. I am pleased to welcome Marie Maltais to the Artivist Series podcast. In the last decade, Marie has been raising awareness about environmental issues through art. Her first project H2O: Liquid Measure was a maze of 6,500 plastic water bottles. The installation called attention to our disposable culture and its contribution to plastic pollution.

**Pam Ferris-Olson** (01:04): In 2019, she oversaw an exhibition entitled, Cascade: Our Plastic; Our Planet; Our Choice. This multifaceted project featured a floor to ceiling waterfall made from plastic. The art center just launched H2O: an Ocean of Science, it's an interactive app developed in collaboration with Spandrel Interactive, a New Brunswick based game and digital media developer. The app was designed for use with a smartphone or tablet, users can interact by contributing their own observations and thereby becoming part of a global conversation about climate change. Welcome Marie, thank you for joining me on the Women Mind The Water Artivist Series podcast. It is wonderful to meet another woman who is actively engaged in conversations with artists and audiences about the environmental impact humans have on the planet, and more specifically the ocean. Marie, your resume lists a degree in fine art history, as well as a diploma in experiential arts. What it doesn't tell me is where you grew up or what led you to follow the path that you did.

**Marie Maltais** (02:23): That's a good question. I've always been interested in art, I've always painted and drawn and I was taken to art galleries and I saw architecture at a very early age. So, it was always a part of the culture that I grew up in. So that was a struggle I had as a student at school, which direction to go in, there were so many interests that it was quite difficult. So I started at the University of Toronto with a degree in English and then ended up in the fine art history for a master's in fine art, but went to the Ontario College of Art & Design in between those times. So I think art has just always been a presence.

**Pam Ferris-Olson** (03:15): So it seems your leadership style has always been about experiential learning, under your guidance, the center has held exhibitions on such things as body art and the exploration of Mars, what motivated you to pivot towards exhibitions focused on environmental issues?

**Marie Maltais** (03:34): I wouldn't call it a pivot, it's been something that's been, again, part of something I grew up with, my father was a science teacher and exposed me to all kinds of biology, experiments, and crazy things that he would build, but he was one of the first people I knew who actually recycled and composted, this was way before it was popular. So it's just something, again, that was just part of my growing up, part of my environment. I've always been interested in explorers, so the Mars exploration is still something that fascinates me, interstellar travel, all of that is something that I find the pushing the limits of the world that we know. So with the water project that I started 11 years ago now with World Water Day, that actually came from a very personal experience that I had.

**Marie Maltais** (04:33): When I moved to Fredericton, New Brunswick, I bought a house on a hill outside of town, not knowing that it was an extinct volcano and that the geography of the area, it didn't function, the land didn't function the way that other land does, because of this volcano. And so what happened is, when that area was developed, all the wells drilled into the same pocket of water and depleted that resource.

**Marie Maltais** (05:03): So I was left without water with two small children. I melted snow to do my dishes, I had a friend who helped me rig a cistern up, collecting rain water from the roof, I had a tank put into the basement where I had a fellow come with a truck who filled that up periodically. So I learned to be very conservative with water, and it just brought to mind how precious that resource is and thinking, I live in a place where I have access to all of those things I described, what about people who don't have access? What about people who just, there's no snow to melt? There's no water to be had, they can't turn a tap on and get clean drinking water. So, that is what really sparked this water project.

**Pam Ferris-Olson** (05:53): Okay. Very good insight. So in my podcast, I've had a number of occasions to speak with artivists, who are focused on plastic pollution, artists like Pam Longobardi, and her Drifters Project, and Suzanne Turaganiwai in Fiji with her Benu\_ni\_waitui. You are the first guest, for me, to speak to who has been involved in developing an app. How did you come to develop an app merging art, science and technology?

**Marie Maltais** (06:23): Yes. Well, that's interesting. I had a friend who was staying with me and he was working on virtual reality projects for industry, and as he was progressing and he would show me his experiments and make me wear the goggles, and that was fascinating. It was a visual door that opened for me that I never really had experienced before. So I thought, "wow, that would be really interesting", because it's such an immersive approach. So I thought it'd be really interesting to do a project like that where the water world was explored. That's a next step for me, but for this particular app, I had the idea of what I wanted to do, but I didn't know how to go about it, I didn't know who to talk to, and finally, I spoke with Jeff Mundee, the CEO of Spandrel Interactive, and we chatted and he said, "oh, we can do that."

**Marie Maltais** (07:28): So we talked, I tried to explain what I was looking for, what I wanted this app to do, and we worked on it, we launched it actually last year, the first version of it last year. So we worked for three months solid on getting exactly what it is that I had in my mind out there, because I'm not a coder, I don't know how to do that stuff, so I was very reliant on Spandrel Interactive to go through those processes. And there's a lot of regulations and a lot of that backend stuff that I didn't even know about that has to go on with Google and the Apple people and all that with apps, you can't just put something up, it has to go through a rigorous process.

**Pam Ferris-Olson** (08:15): Okay. Can you describe the app? What does it do?

**Marie Maltais** (08:19): Okay. So when you launch the app, you see a globe, it comes out of a jet of water, which is quite fascinating with sound effects and music, and you get a globe that spins, and the globe eventually slows down and you can actually make it a bit larger, and there's little markers all over the globe that are trouble spots in the world where water is an issue. So you click on one of these markers and it takes you to a photograph, an image, and a card with some text, and then there's a link, if you want to explore more, you can explore more through other sources. So that's the basis of it, that's the standard version. There's an augmented reality version where you point your phone at the floor, and actually this waterfall, this water jet and globe come into your living room and you can manage it that way through touching it in this augmented reality sense. So the one version is on your phone, the other one is actually in the space that you're occupying.

**Pam Ferris-Olson** (09:33): So do you know of plans to use the data from the app for artistic or scientific projects?

**Marie Maltais** (09:40): I'm not sure yet. I don't know if there's any plans out there of people, I'm not planning to do anything more beyond what we've done with this in terms of developing an art project from this, but I'm hoping there are people who do.

**Pam Ferris-Olson** (09:59): Okay. So, how do you view the app? Is it a form of art?

**Marie Maltais** (10:04): It's a hybrid, I would say. We invited Colonel Chris Hadfield to the art center in 2015, and he gave a great presentation, in it he said, "science is how we understand things, engineering is how we make things work, but when we want to communicate, we use art." And I think that is the underpinning of this. I wouldn't call it an art project per se, I think it's a hybrid of all these different things.

**Pam Ferris-Olson** (10:42): So what new ways do you see for artists to engage with audiences?

**Marie Maltais** (10:48): Oh, I think technology has opened up a huge platform for exploration, I don't think we've even scratched the surface yet of how technology, how sound, how visuals, how all these things can be manipulated, there's a lot of artists working right now with various technologies, with video, with all kinds of different approaches, as well as traditional art making media.

**Pam Ferris-Olson** (11:18): Right. So, do you think that this technology makes it increasingly possible for the audiences to be interactively engaged with art, that they will be less interested in engaging in art that isn't presented in a technological way?

**Marie Maltais** (11:34): I don't think so. I think as humans, we respond on a visceral level to art. It's essential experience, whether you see a painting or a sculpture, or whether you see a virtual reality environment, I think the technological platforms help, it makes it easy, it's on our phone, we have these phones with us all the time. So I think that makes it somewhat accessible, you don't have to go to an art gallery, but I think with social media and our online world, especially after COVID, I think, we are more attuned to using technology to further our communication, to further our creative processes.

**Pam Ferris-Olson** (12:25): Okay. So, what challenges do you think that artists face in engaging audiences in the conversation about the environment?

**Marie Maltais** (12:34): I think one of the things that challenged me, especially when I was beginning to work on H2O: Liquid Measure or the Cascade Project or the Heavy Metal Project was, how do you visualize quantities that we can't even really fathom? 91 billion or 6,500 or 10,000 meters, those kinds of things. So I think the challenge for me has been, how do you take these quantities and make them real and make them so that people can understand them? Because I think when we hear statistics or we hear doom and gloom, we just turn off, we don't hear anything more, we're like, "oh, that problem is too big, we can't solve it", but I do believe we can, I believe we have the ingenuity, we have the brain power, we are developing technology all the time and we are always looking for solutions to some of these things.

**Marie Maltais** (13:34): So I think that, we have to not necessarily look at the positive side, because that's difficult too, but I think we have to find pathways where we can meet each other one on one, where we can communicate, where we can talk about these things, where we can see things that spark our imagination, that assist us in making decisions that help the planet rather than hurt the planet. So something as small as an individual being aware of how much plastic they consume with, like I said, with the H2O: Liquid Measure with the water bottles, just having that awareness. Once you have the awareness, once those blinders are taken off, you can't see the world the same way, and I think that's the power of art right there.

**Pam Ferris-Olson** (14:30): An interesting question that came to mind is, one of the last artists that I interviewed was Mariah Reading, and she picks up trash that she finds, and then she's a landscape artist, so she paints that landscape where the item was found on the object, and so it both calls attention to the object, but hides it in the landscape, and what she said was that she was aware as an art student about all the art projects that people create, then they trash it, or the materials that you use that also contribute to pollution. So that is an issue in creating some of this art that I don't know if artists... Do you think that artists are aware of their contribution to the problem in calling attention to the problem?

**Marie Maltais** (15:33): I think so. I think that's part of it, I think art galleries are becoming more aware of sustainable management issues as well, but art is about material, generally, and so what do you do with that material? For me, with the H2O: Liquid Measure, I took bottles from a recycling company, and then I gave them back to them, so there was no superfluous material. With the Heavy Metal Project, it was a community invitation to bring their e-waste, their electronic gadgets and things that were no longer functional, bring that e-waste into the gallery, and we collected six tons of that, which was incredible, for recycling. So it was, in a way, a pathway to providing awareness and in the community about e-cycling and the problem with e-waste. So, I think there are ways to do that as well.

**Pam Ferris-Olson** (16:32): Okay. So finally, do you think we can effectively engage in conversations about making the ocean a less pollutive, more sustainable place? And how do we do that?

**Marie Maltais** (16:44): I think there's a lot of people looking at a lot of the different problems, and some of the solutions cause problems too, and I think that's a problematic situation. So for example, when the Deepwater Horizon in 2010, when the Deepwater Horizon created that incredible oil spill in the Gulf of Mexico, one of the ways that they looked at trying to clean up that oil was using chemical dispersants, which actually made the matter worse, but I think, we have to try, we have to look at different ways we can manage these things.

**Marie Maltais** (17:24): Right now, they're developing LED nets to prevent sea turtles and other Marine animals from going into those nets, there's a rope, this consortium that is looking at reducing the number of ropes that are holding nets and crab traps and all that kind of stuff, they're looking at tracking the North Atlantic right whale so that when they know that they're in the shipping lanes, they're reducing their speeds or they're preventing ships from going in there, which there's always two sides to a thing, every problem has solutions and problems with those solutions sometimes, but I think, we have to keep working at it, we have to keep trying, we have to keep finding a way to help preserve this beautiful planet that we have

**Pam Ferris-Olson** (18:14): Well said. Thank you, Marie, for being on the Woman Mind The Water podcast. I hope listeners have gotten new perspectives on the relationship between art, technology and the environment. I'd like to remind listeners that I have been speaking with Marine Maltais for the Women Mind The Water podcast series. The series can be viewed on womenmindthewater.com and audio only version of this podcast is available on the Women Mind The Water website on iTunes and other sites. Women Mind The Water is grateful to Jane Rice for the use of her song, Women of Water. All rights for the Women Mind The Water name and logo belong to Pam Ferris-Olson. This is Pam Ferris-Olson