

Q&A with Ari Daniel

Interviewed by Joelle Seligson

Strange noises in a Connecticut backyard, love affairs between tiny copepods, and chemicals that exist in the clouds between stars: These are a few of the subjects that Ari Daniel (aridanielshapiro.wordpress.com) has turned into fascinating science stories. Daniel has united his lifelong passions for science and storytelling through his work as a freelance radio journalist (you may have heard him on (U.S.) National Public Radio) and digital associate producer at *NOVA* (www.pbs.org/wgbh/nova). He also hosts the Boston chapter of the Story Collider (storycollider.org), in which other narrators take the stage to relay their science-related tales. Here, Daniel reveals how—and why—to find and share great scientific anecdotes with the public.

So Ari, tell me what science-related story you're developing at the moment.

Well, I'm working on a fun one at the moment. It's about a group of physicists that are tying knots out of liquid. So they're using fluid like air and making a knot out of it in water. It's a group of physicists that are based out of the University of Chicago. I'm making a video out of it.

Very cool. How did you become interested in combining storytelling and science?

You know, I've always kind of—I think I come from a family of storytellers. I remember my grandmother telling me stories when I was a kid. I just grew up in that environment, where stories were a big part of the currency of how we interacted with each other. And then I've always had a really strong interest in science, and certainly when I was younger, in biology and the environment, and now as I get older it sort of spans more and more disciplines. I think that for a while, the storytelling interest, which I think—I was very involved in theater for a while, that sort of thing was one element of what I did, kind of as a hobby, and the science was what I did in terms of

my studies and professionally. And at the end of my Ph.D. I was interested in bringing those two things together, I think because at the time I just didn't feel like I wanted to stay in research. So I thought about what else might be out there, and journalism and specifically doing radio stories about science was what was particularly appealing to me.

Why do you think storytelling is an effective and important way to communicate about science?

I think stories are very universal types of vehicles for communicating ideas and information. And stories have a way of entering us and capturing our imaginations and our empathies and our ideas, our brains and our hearts. And so I feel like if you're able to enfold a science concept or a set of science ideas inside a story, which is very easily digestible and easily communicated—I think it's a powerful way of having people come to understand the science concept, but also the context for that science concept in someone's life or someone's experience.

How do you decide which stories to tell? And on a related but separate note, what do you think makes for a good science story?

I look for stories that are just kind of unique, it's hard to say. It's the sort of thing where I spend a lot of time looking. Sometimes I feel like a dog sniffing around for a treat, a really good treat, and you're never quite sure where it's going to be—actually, dogs probably have a better idea, looking for treats, than me looking for stories. But it's like that—you're sort of rooting around, uncovering rocks and things and seeing what's underneath it, and you're never sure. But when you find it—when you see this thing and it's kind of glittering or glowing in a way that you haven't witnessed before—I just have a sense that I want to show that glimmering and glittering thing to other people. So it's hard to say what that is, but I know it when I come across it.

Often I think science stories that I like to tell and elements that go into the type of science story that I think is a good one—that I like to be around and report on—are ones that have really strong stakes and characters in them, where there's a bigger, epic backdrop. And the epic backdrop—it can be a small epic backdrop, but there's some sense of a journey that the character,

maybe it's a scientist, has gone on in order to achieve something, or maybe they've explored it along the way, or maybe there's some political circumstance that they're in the midst of, or maybe there's some really powerful emotional or relationship experience. For me, those stories are—they're this bigger human story, and the science gets enveloped and it's an important piece of it and it's carried along for the ride. Sometimes the science is what motivates it. But I like that kind of staging for it. And I don't always find it; sometimes the stories are more modest and gentle. I like those, too. But I think if I find something surprising that I haven't come across before—that's what I like to cover.

Given all of those criteria, what's a favorite story you've told recently, or not so recently?

I was reporting on a kind of seagrass in the Mediterranean that's endangered, it's a *Posidonia* seagrass over there, and it's endangered for a variety of reasons. And I wrote up a draft of the story—it actually took me a while to report the story, I collected the tape one summer when I was in Spain and then for whatever reason I was gathering additional tape over the course of that year, not working on the story primarily, and so it ended up taking a year and a half before I had all the tape. And so I put together this storyline for my editor, I wrote up the script and presented it to him, and he kind of pushed back. He said, "I feel like I've heard that story before," because it's a story of a species that isn't faring well and there's a group of people that are trying to help it out. And he's like, "Is there a way where you can set it apart somehow?"

And so I went back to the script and rewrote a bunch of it, and eventually what I decided on using, which I hadn't used in the first round of the script, was that over the course of reporting that story, one of the characters had died. Actually, he died at sea, when he was recreationally in the same spot where he worked professionally rescuing the seagrass—that's what he did professionally. He was out one afternoon and he was in the water, and he must've fainted and he wasn't able to make it back up to the surface in time. So I actually then told the story about him, through Alex Lorente's view. I had the tape from the year prior where I'd interviewed him, and I admit right at the top of the piece that this is a story about a guy devoted to a cause who was lost all too early. And then we hear about the seagrass, but

it's contained within this larger idea of somebody's passion and a man that passed away in his mid-30s, and in the end I explain the circumstances for his death. So I don't know if I'd call that glitter, but I'd call it—there was an anchor or a substance to it, and I feel like the piece was stronger, and I still got to talk about the seagrass but I got to honor this man's work and his life, too.

Definitely an emotional angle on that one. What kind of work have you done with science centers and museums? I know you recently told a story for Liberty Science Center.

So, as a freelancer I do—I make radio and multimedia stories for a variety of different outlets. And one of the museum projects that I was most excited about participating in was—there was this group based out of the Woods Hole Oceanographic Institution and Rhode Island School of Design. There was one organizer from each school, both students, that put together a program called Synergy, which essentially brought very talented artists in the greater Boston area together with ocean scientists in Boston, in Woods Hole, in order to inspire the arts through ocean science. And all of those exhibits, all of the art that resulted went on a display in the Museum of Science in a special section for a few months. And a colleague and friend of mine, Amanda Kowalski, who's a videographer—she and I worked on making these short, 90-second portraits of the collaborating pairs. And it was a lot of fun for both of us because it was art, there was so much visual potential, and it was really beautiful to hear the kind of partnerships that had formed between these scientists and artists. We put together about eight of these mini-videos, mini-films, and those films were put on a loop in the exhibit. So we had our video work on display along with all of the other artwork, and it was just a lot of fun. That's one example of something I've done in that realm.

Very cool. For other science centers and museums that are looking to use storytelling and multimedia to communicate about science—what advice would you give to them?

There are so many wonderful examples of ways in which museums are tapping into their local communities. Sometimes they're going out into those communities and erecting their museums right there—they'll have

workshops or some activities that are taking place right in the community. I feel like local stories about science that can come from the geographic catchment area of the museum or science center make a lot of sense. Many museums are already doing this. But inviting scientists or science teachers or folks that work in the science center or in the museum to come and talk about what they do—but to do it maybe less as a lecture and more as a story or a series of stories—I think can be quite compelling.

That's great. Is there anything I didn't touch on that you'd want to share?

I think the only other thing I'd talk about is I've gotten involved with this group called Story Collider, which is—it started in New York, Ben Lillie and Brian Wecht started it there, and now it's growing to other areas, and I'm fortunate to run the Boston part of it. We hold quarterly shows. Basically we get scientists and nonscientists alike up on stage in order to tell 10-minute stories or so, personal stories that somehow explain how science connects to their lives. And it's great fun. I love doing it. Every time we host an event it's like a big party, a lot of people come to the theater, we've got a bar in the back and about 150 people that come and hear five stories, and it's such a positive setting for talking about science. So it's been great, and I might encourage science museums and science centers to maybe think about a style like that as well.

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