

Ocean Gazing: Episode 50
The poetry of our planet

<intro music>

Ari: This is Ocean Gazing. It's the podcast where we float amongst the frothing, teeming seas...that pulsing, rippling world of water. I'm Ari Daniel Shapiro.

Delaney: It's important to realize, I think, that culturally – not just scientifically, but culturally – the oceans touch human beings in deep and important ways.

Ari: That voice might sound familiar. John Delaney – a professor of oceanography at the University of Washington – appeared on our very first episode of Ocean Gazing nearly two years ago. In this 50th episode of our series, we check back in with Delaney on how he blends science and poetry to achieve a deeper understanding of our planet. Stay tuned.

<fade up music to full and sustain; cross-fade reception ambient>

Ari: Last year at a workshop for the Ocean Observatories Initiative in Baltimore, John Delaney huddled with Susumu Honjo during an evening reception. Honjo is an oceanographer at the Woods Hole Oceanographic Institution. He and Delaney were discussing a haiku written by Matsuo Basho, a 17th-century Japanese poet.

Honjo: But let's go with it, ok? *Araumiya*.

Delaney: *Araumiya*.

Honjo: Ok, there are two things: intonation, which is go up and down very slightly...

Ari: This is one of Delaney's favorite haikus.

Honjo: And also important thing is a pause. If you go without a pause, it doesn't mean too much. If you leave the pause too long, it looks like you are hesitating. <Delaney laughs> You generally learn it...

Delaney: ...by doing it.

Honjo: By doing it. Ok:

Araumiya
Sado ni yokotau
Amanogawa

Delaney:

Araumiya
Sado ni yokotau
Amanogawa

Honjo: Good! Perfect, perfect, perfect, perfect.

Delaney: Oh, excellent. I have to practice. A lot of practice.

Ari: The haiku, it means:
*Turbulent the sea
Stretching across to Sado Island,
The milky way.*

Honjo: For us, for many people, that really symbolized not only the Earth, not only the water, not only the dark sky, but it's a whole universe!

Delaney: Absolutely. And another way of thinking about it: "Turbulent the sea" means the ocean is very disturbed. Big waves. Breaking on the beach. And yet, referring to the Milky Way stretching across to Sado, it's quite clear that the clouds have passed away, so there's no storm at the moment. And yet the sea has a memory and it's still turbulent. And so in 17 syllables in Japanese, Basho captured the absolute essence of the moment. <fade out reception ambient>

Ari: For Delaney, the ocean is both a source of intellectual curiosity and emotional possibility. Science speaks to the intellect, he says, whereas poetry speaks to both the intellect and the emotion.

Michael Collier is a professor of English and creative writing at the University of Maryland College Park. He's a poet too, and back in 1991, Delaney invited Collier to join him aboard the *Atlantis II* on one of his research cruises.

Collier: John just had this sense that having a poet onboard would bring another kind of element, a different kind of way of looking at the world.

Ari: Collier's time aboard inspired him to write two poems later – one called "Fathom and league" and the other "Pax geologica." He also read his poetry during the cruise, and it was the beginning of a tradition. On every research cruise since, one night has been devoted to poetry. Scientists, students and crew gather in the library to read aloud their own poetry or the poems of others. It's become one of the best-attended and most eagerly anticipated events of every cruise.

Naturally, there's also a lot of science happening onboard these cruises. For almost two decades, Delaney's been pushing for a new kind of ocean science – a way of being there in the volume of the ocean without actually being there. It involves lighting up the ocean with an extensive network of sensors and semi-autonomous robots that can be reprogrammed from shore via high speed optical networks.

Delaney: This Ocean Observatory Initiative...will have thousands of sensors distributed through the volume of the ocean that will ever be on guard. I mean, 24/7/365 for decades, we'll be measuring the ocean from the inside out all the time.

Ari: This vision...it received funding from the National Science Foundation in September 2009. And it's only three years away from becoming a reality where these sensors monitor

the physics, chemistry and biology of the ocean and seafloor in many locations across the world.

Delaney: We will have the capacity to detect and track major events like a gigantic storm, or an erupting volcano, or migrating blue whales, or fish stock migration patterns, or for that matter – it could easily be big earthquakes and the tsunamis they generate. It's across the board the many, many things that the ocean represents, both in terms of threats – potential hazards – and in terms of both opportunities and resources. The more we know, the more wisely we can use and protect ourselves from the ocean.

And the program we're talking about is scheduled to last something like 30 years. But the truth of the matter is, it'll be replaced by even more sophisticated techniques. And humans will be intimately involved and tied to the oceans on a routine, regular basis in ways we can't even imagine right now.

Ari: This vision, it represents a democratization of science since these observatories will relay their data about the world's ocean to anyone with an Internet connection. To scientists and, for that matter, poets too.

On that research cruise almost 20 years ago, poet Michael Collier came to realize the connections between science and poetry.

Collier: One of the big connections is just experimenting. Poetry is experimenting with language, and science is experimenting with concepts. And then, also, they're both very powerful forms of human inquiry and they both lead to different kinds of truth.

Ari: Delaney shares his love of poetry with other scientists too. Take Margaret Leinen. In February, she'll be the associate provost at Florida Atlantic University. She met Delaney on a research cruise back in the early 80s, and they've stayed in touch ever since.

Leinen: Whenever he is in town, I've often got something new that I *have* to read to him.

Ari: For example...

Leinen: This is a poem by Ted Koozer who won the Pulitzer Prize for poetry. This poem is called "A Jar of Buttons." And the first line is: "This is a core sample from the floor of the sea of mending." So already you see that relationship to what I do – I take cores of the ocean floor. So:

*This is a core sample
from the floor of the Sea of Mending,*

*a cylinder packed with shells
that over many years*

*sank through fathoms of shirts –
pearl buttons, blue buttons –*

*and settled together
beneath waves of perseverance,*

*an ocean upon which
generations of women set forth,*

*under the sails of gingham curtains,
and, seated side by side*

*on decks sometimes salted by tears,
made small but important repairs.*

Ari: For John Delaney, the ocean is full of mystery. And ocean observatories are a powerful way of weaving together the scientific and aesthetic threads that make up the fabric of our global ocean, and then streaming it all to shore for everyone to absorb, read, pore over, and find meaning...whatever their specific focus may be.

Delaney: It gives us all the opportunity to experiment, to innovate, to develop novel approaches to studying the global ocean, which is really our life support system on the planet. It's nothing more and nothing less.

You would never imagine leaving our planet and going to another star system in a spaceship – with your family and all your friends – without taking with you a very dependable and well understood life support system on that spaceship. No one would dream of doing that.

Well, we're on a spaceship, we have our families onboard, and we have a life support system and we really don't understand it very well. It's called the ocean. And that is the passion that many of us have...is the complexity. It's the complexity that is going to be the biggest nut for us to crack. And it's not gonna yield easily to casual effort. It's gonna be a major, major challenge for us to get there.

<fade up transition music>

Ari: For the last two years, there's been a new episode of Ocean Gazing every two weeks. This episode – number 50 – is the last in that streak. We'll still have an occasional new episode, but we're shifting our efforts towards getting these first 50 episodes into the ears of lots more people. In K-12 and college classrooms, on public radio stations, into other podcasts. We're also revamping the Ocean Gazing website in the months to come to make it easier to search for episodes according to subject and geography, and to find accompanying lesson plans.

Thanks for being along on the ride so far. Stay connected with where we're heading by visiting oceangazing.org regularly. If you go there now, you'll find a couple more poems read by John Delaney and Michael Collier.

Ocean Gazing, it's a product of COSEE, and we get our financial support from the National Science Foundation.