

SCIENTIFIC
OCEAN
DRILLING

CREDIT: Maya Pincus & IODP



Digital Newsletter

the Drilling Dispatch

June 2023

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Introducing...

Tales from the Deep: Stories of Scientific Ocean Drilling

Welcome to the 5th issue of the Drilling Dispatch. If you've been with us from the start, thank you for your loyalty to our program. If this is your first time with us, welcome aboard! No matter where you are in your career, you're sure to find something that will pique your interest.

In celebration of the United Nations-designated World Oceans Day on June 8th, and National Oceans Month as an extension, we are excited to announce a new feature of U.S. Science Support Program education and outreach—[Tales from the Deep: Stories of Scientific Ocean Drilling](#). This project, spearheaded by Dr. Laura Guertin and supported by Maryalice Yakutchik and Maya Pincus (Onboard Outreach Officers, Expeditions 390, 392, and 391 respectively), is a collection of conversations published to the StoryCorps Archive. StoryCorps is a nonprofit organization that records, shares, and preserves stories to build connections between people. Because all interviews are preserved at the American Folklife Center at the Library of Congress in Washington, D.C., these records of scientific ocean drilling will be preserved long after our beloved *JOIDES Resolution* is retired. The objective of *Tales from the Deep* is to showcase how multifaceted our community is. Though we were brought together by the science, our experiences are so much more than that. Instead, this collection offers a glimpse into the most human elements of scientific ocean drilling: the little stories of everyday life that often get overlooked as we prioritize our data.

What's it like to sail on an ocean expedition with a food allergy? Which books are the best at the end of a long day in the lab? How did we even end up here? These are the questions that many people outside our community wonder, but have never had a chance to ask. By acknowledging the people behind our incredible work, we are offering non-traditional audiences an access point into scientific ocean drilling, and will hopefully engage groups that have been overlooked or excluded in the past.

The most important thing to know about *Tales from the Deep* is that we're just getting started! In the coming months, we will add many more narratives, as well as audiogram-style trailers, transcripts, relevant images and educational materials, and more. This project is evolving into a multi-media repository for stories about life at sea. For now, you can listen to the ever-growing library of audio narratives in the [StoryCorps archive](#). But you can look forward to a standalone website in the coming months, hosting a web of interconnected resources that bring scientific ocean drilling to life.

If you are as excited about this project as we are, there are ways you can get involved:

- Share your story and be featured in a recorded conversation about an experience on *Glomar Challenger*, *JOIDES Resolution*, *Chikyū*, a mission-specific platform, or as shore-based support
- Recommend a topic for a new conversation
- Suggest ideas for additional resources to supplement each audio narrative
- Provide feedback about the resources that are currently available

Let us hear your thoughts in [this survey](#), where you can also sign up to record your topic, and stay tuned for the next story! Laura is also happy to take questions and feedback directly, at guertin@psu.edu.

In the works...

Expedition 395: Reykjanes Mantle Convection and Climate

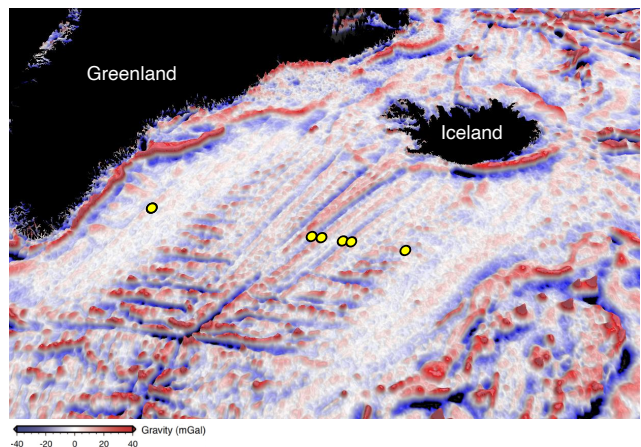
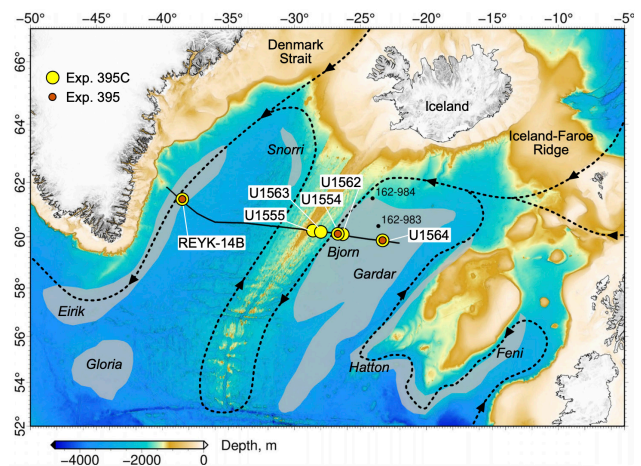
Anne Briaïs and Ross Parnell-Turner
Expedition 395 Co-Chief Scientists

*written by Jennifer Field
(Expedition 395 Onboard Outreach Officer)*

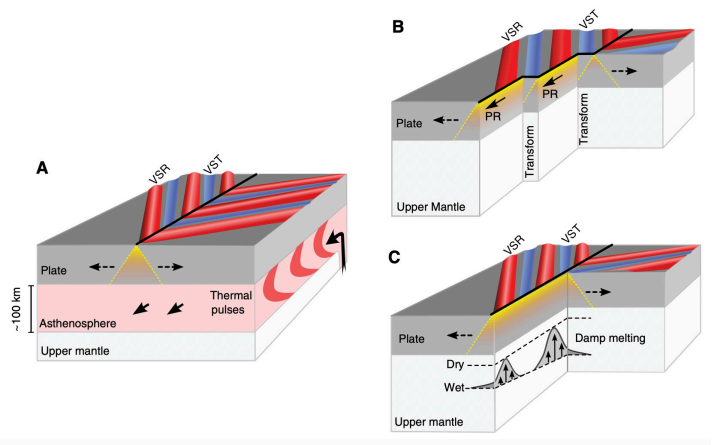
Have you ever looked at a bathymetric map and wondered at the V-shaped pattern surrounding the Mid-Atlantic Ridge just south of Iceland? You are not alone! The formation of these features has been a point of debate between scientists for decades and the scientists on board the JR's Expedition 395 are determined to solve this and other puzzles.

Expedition 395 scientists are embarking on a groundbreaking expedition to continue their study of the interaction between the Icelandic mantle plume and the Mid-Atlantic Ridge. Positioned over the mantle plume, the Reykjanes Ridge is an ideal location to explore mantle dynamics, crustal accretion, paleoceanography, and climate. The second of two expeditions, 395 has been years in the making. The cores from Expedition 395 will complement cores taken on Expedition 395C which embarked in 2021 (during the Covid-19 Pandemic) with only one scientist aboard!

Led by Co-Chief Scientists Anne Briaïs and Ross Parnell-Turner, the expedition plans to recover sedimentary and basaltic cores by penetrating ~130 m into igneous basement at sites adjacent to the Reykjanes Ridge. Expedition 395 has three primary objectives; (1) to determine the origin of the unusual but characteristic V-shaped ridges (VSR) and V-shaped troughs (VST) which are visible on bathymetric maps of the North Atlantic, (2) to test hypotheses about the hot mantle plume that exists under Iceland



TOP: Bathymetry, deepwater currents (dashed lines), contourite drifts (gray shading), Seismic Profile JC50-1 (solid line), and Expedition 395 and 395C sites (Credit: Parnell-Turner, R., Briaïs, A., and LeVay, L., 2023). BOTTOM: 3D perspective of the free-air gravity anomaly showing the VSRs and drilling sites (Credit: Ross Parnell-Turner).



LEFT: Green alteration along a crack in a basalt core collected during Expedition 395C (Credit: Sarah Kachovich & IODP JR50). RIGHT: Competing hypotheses for V-shaped ridge (VSR) formation (Parnell-Turner et al., 2017). VST = V-shaped trough. (A) Thermal pulsing hypothesis (Vogt, 1971). (B) Propagating rift hypothesis (Hey et al., 2010). (C) Buoyant mantle upwelling hypothesis (Martinez and Hey, 2017).

(much like the plume that exists under Hawaii) and how its changes through time are cyclical and affect crustal formation and the deep circulation of the North Atlantic Ocean, and (3) to gather data about how hydrothermal fluid chemistry varies with the age and the morphology of crustal rock as well as with the overlaying sediment thickness.

Core samples will provide clues to the expansion and contraction of the Icelandic plume which may influence how the deep ocean circulation in the North Atlantic has varied over the last 33 million years. The changes in plume behavior causes uplift and subsidence of the Iceland-Faroe Ridge and the Denmark Strait, which, in turn, control deep water circulation from the Arctic Ocean. In addition to oceanic circulation, it is possible that the hot pulses from this mantle plume also lead to the formation of VSRs and VSTs. The idea that this thermal pulsing of the Iceland plume causes the formation of the VSR's and VST's will be tested against alternative hypotheses involving propagating rifts and buoyant mantle upwelling. Four of the coring sites intersect VSR/VST pairs, one of which coincides with the Björn drift. A fifth site is located over 32.4 million year old oceanic crust that is devoid of V-shaped features. This site was chosen because it intersects Oligocene–Miocene sediments of Gardar drift. Finally, a sixth site will core deep into the Eirik Drift off the eastern coast of Greenland to recover sediments deposited by deep water currents.

The research team will use millennial-scale paleoclimate records contained in rapidly accumulated sediments of contourite drifts, such as the Björn and Gardar Drifts, in the region. The accumulation rate of these sediments is a proxy for current strength, which is moderated by dynamic support of oceanic gateways such as the Greenland-Scotland Ridge. These sediments will also provide fossil evidence for climatic events including Pliocene warmth, the onset of Northern Hemisphere glaciation, and abrupt Late Pleistocene climate change.

The recovered sediments and basalts from Expedition 395 will provide a major advance in the understanding of mantle dynamics and how it is linked to the changes in Earth's interior, oceans, and climate. By exploring the relationships between deep Earth processes, ocean circulation, and climate, the research team hopes to shed light on the complex interplay between these fundamental components of Earth.

From the field...

Volunteering at EarthFest'23

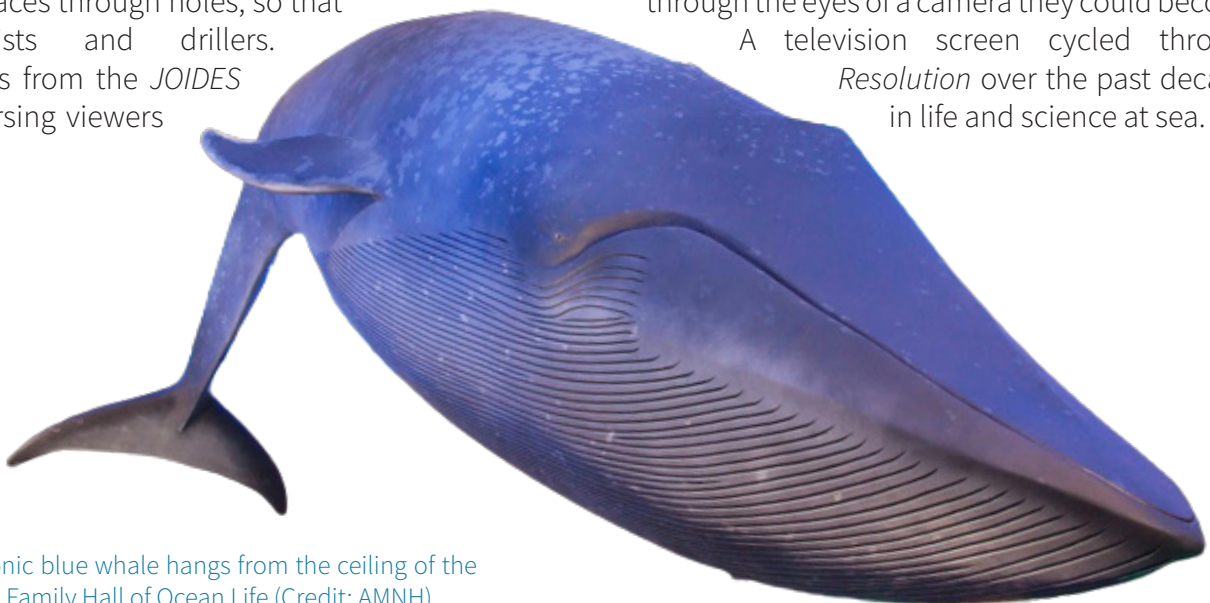
written by Maya Pincus (USSSP)

The room is huge, dimly lit. Children run around like ants forced out of their hives. Among them wander real ants, the size of humans wearing costumes, picking up stones made of pillows that they are using to build new homes. The scene is observed from above by a great blue whale, a cetacean sentinel that has presided over this hall for exactly as long as humans have been attempting to drill below the oceans' floors. It is EarthFest '23, an Earth Day celebration.

The American Museum of Natural History is a magical place for adults and children alike. Around each corner is another surprise, a new delight: a titanosaur skeleton peeking down at you through a doorway, light glinting and sparkling off infinite crystal facets, a butterfly artfully setting down on your sleeve before flitting away to grace another visitor with its delicate touch.

Those who visited the museum on April 22 were offered a special surprise, a unique delight. In addition to the usual collection of exhibits, visitors could immerse themselves in activity stations from local organizations and an agenda of presentations about our planet. The U.S. Science Support Program brought scientific ocean drilling to the masses through both of these media, inviting guests to engage with "the coolest science program no one's ever heard of," and leave knowing a little more about how we solve the Earth's mysteries.

In a back corner of the Milstein Family Hall of Ocean Life, an inflatable *JOIDES Resolution* the size of a compact car gently beckoned visitors. With each draft of air through the hall, the balloon derrick drifted a few inches to left and right, a big arm waving hello. Scenes painted on plywood invited guests to stick their faces through holes, so that through the eyes of a camera they could become scientists and drillers. A television screen cycled through images from the *JOIDES Resolution* over the past decade, immersing viewers in life and science at sea.



This iconic blue whale hangs from the ceiling of the Milstein Family Hall of Ocean Life (Credit: AMNH).



LEFT: Our activity station included an inflatable *JOIDES Resolution*, crocheted and 3D-printed microfossils, photo opportunities, core replicas, retired drill bits, and so many giveaways (Credit: Maya Pincus & USSSP). RIGHT: Children couldn't stay away from the inflatable ship, even after we deflated it at the end of the day (Credit: Maya Pincus & USSSP).

I was joined at the USSSP table by three volunteers from the recently completed School of Rock workshop, NYC public schools teachers Leslie Liang, Myrna Gatica, and Arthur William Funk. At no point during the day were we surrounded by fewer than twenty visitors. Toddlers jumped up to investigate bulbous 3D-printed models of foraminifera. Teenagers squealed over temporary tattoos. Caretakers of all ages asked questions so they could remind their kids what they learned as they filled out our coloring and connect-the-dots worksheets at home. We gave out stickers and pencils. So many stickers and pencils.

I can't decide if I was more impressed by the museum visitors, or by my own team. Leslie expertly connected the Earth Day theme to our own science, demonstrating over and over how integral the oceans are to all Earth systems. Myrna was a code-switching superstar, skilled at talking to visitors of every age and origin. If I do say so myself, though, she was our group's best infant ambassador. In her own words, *"I enjoyed talking to the little ones about the secrets of the ocean and their little faces filled with curiosity and wonder."* Arthur was the most animated I've seen, recreating the Chicxulub impact in families' imaginations through our replica cores and retired drill bits.

Visitors' questions pushed us to the limits of our knowledge and creativity. *What are the drill bits made of? Why do all these fossils look different? Does the drill ever get stuck? How many people sleep in each room? Do you get seasick? What's the coolest thing you've discovered? Why do you even bother to do something so difficult and expensive? What makes it worth it?*

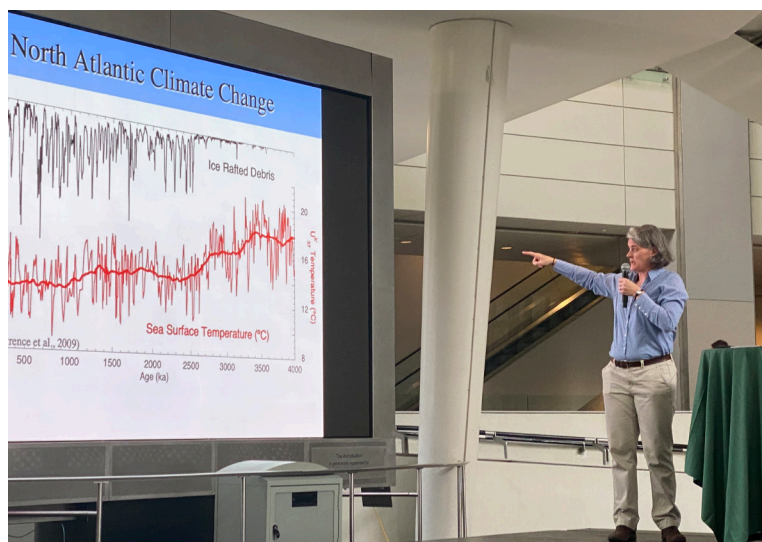
Though some parents engaged us just to be polite while their children pocketed freebies, so many groups were gen



Over the course of the day, Leslie perfected her ability to explain microfossils to visitors of all ages (Credit: Leslie Liang).

uinely fascinated by our program. “I can’t believe I never knew about this!” is a phrase we heard over and over, followed by “How can I get involved?”

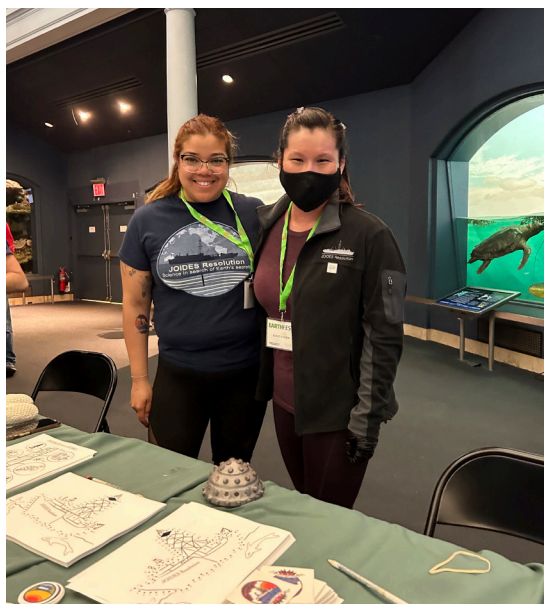
Just before 1:00 PM, I gathered as many people as I could and walked with them to the Cullman Hall of the Universe for a special lecture. IODP scientist Dr. Kira Lawrence presented “Back to the future: Insights into future climate change,” in which she explained to a diverse audience how her research into past climate conditions, and knowledge of the past in general, can help us better understand how Earth is reacting to current increased levels of atmospheric carbon dioxide. She was accompanied by an American Sign Language interpreter, and her mother and son watched proudly from the audience.



ABOVE: Dr. Kira Lawrence gave a talk about the connections between scientific ocean drilling and past and present climate change (Credit: Maya Pincus & USSSP). BOTTOM LEFT: Myrna and Leslie pose at the activity station (Credit: Leslie Liang). BOTTOM RIGHT: Maya and Myrna teach visitors about ocean cores (Credit: Leslie Liang).

After the talk, Kira was swarmed by listeners who did not get a chance to ask questions during the designated Q&A session. A large fraction of this group comprised pre-service teachers from the AMNH Master of Arts in Teaching Earth Science Residency Program, who were eager to find ways to capture what they learned from her and bring it to their own students.

Based on the number of pencils we handed out at the activity station, an estimated 400 families came away from EarthFest’23 knowing more about the International Ocean Discovery Program than they did when they entered the museum that morning. As we look to the future of scientific ocean drilling, we cannot forget that events like this are what captivate the imagination of the public, and inspire the next generation of Earth scientists.



How to...

Make a smear slide

written by Maya Pincus (USSSP)

Smear slides are an efficient way to analyze the fine particles that make up marine sediments in order to determine their composition. This knowledge is crucial to the process of interpreting the cores we collect because, by identifying the minerals, textures, and fossils that are present in a core, we are able to interpret the age and environment in which the sediments were deposited. By making multiple smear slides from a core, we can tell the story of how, and possibly why, ocean conditions changed over time.



A sedimentologist prepares a smear slide (Credit: Kelly Gibson & IODP).

- **Step 1:** Pick an interval. Look at the core and identify which area(s) you want to sample. If there is a visible change in lithology, it is a good idea to sample sediment from each distinct layer.
- **Step 2:** Use a toothpick to collect a small amount of sediment from your region of interest in the core. Transfer the material from the toothpick to a glass slide.
- **Step 3:** Carefully use a wash bottle to cover the sediment with water. Use the toothpick to create a slurry of the sediment in the water, evenly dispersing the sediment.
- **Step 4:** Place the slide on a hot plate and allow the water to dry.
- **Step 5:** Apply optical adhesive to a coverslip, and place the coverslip on the dry slide. Use a toothpick to push out any air bubbles.
- **Step 6:** Place the covered slide under a UV light to cure.
- **Step 7:** Observe the slide under a microscope to investigate the optical properties of the marine sediment, and determine the mineral composition and texture of the layer in the core.

In addition to this guide, [IODP Technical Notes 1 and 2](#) are digital references to aid with smear slide analysis, including interactive atlases and tutorials for interpreting different marine sediments. This [blog post](#), written by Expedition 382 sedimentologist Dr. Shubham Tripathi, provides additional details about the value of smear slides as a core description tool at sea.

FEATURED VIDEO

[A Guide to Smear Slides](#)

A smear slide is a quick and not-so-dirty method of determining the lithological and biological content of sedimentary layers within a core. In this video, IODP scientists describe the step-by-step process of how to make smear slides, and explain why they are crucial to ocean-drilling science.

For your calendar

- **Chikyu IODP Board Meeting**
(7-8 June 2023; Kobe, Japan)
- **Science Evaluation Panel Meeting**
(28-29 June 2023; Pavia, Italy)
- **Apply for IODP workshop, *Developing Strategies for the Scientific Investigation of Sediment Drifts on Campeche Bank***
(Deadline: 12 June 2023; [learn more here](#))
- **U.S Advisory Committee Meeting**
(19-21 July 2023; New York City, USA)
- **Submit an abstract to GSA Connects 2023 annual meeting**
(Deadline: 25 July 2023; [learn more here](#))
- **Apply for IODP workshop on *NanTroSEIZE Synthesis***
(Deadline: 31 July 2023; [learn more here](#))

SCI COMM RESOURCE OF THE MONTH

For IODP scientists, the rocks and sediment in the cores drilled by the JOIDES Resolution are like books that tell the story of the Earth. If you have wondered how scientists learn so much from something that was buried under the seafloor, then “How to Read a Rock” is the digital comic for you!

[How to Read a Rock](#)

Spotlight on...

Harm Nienhuis

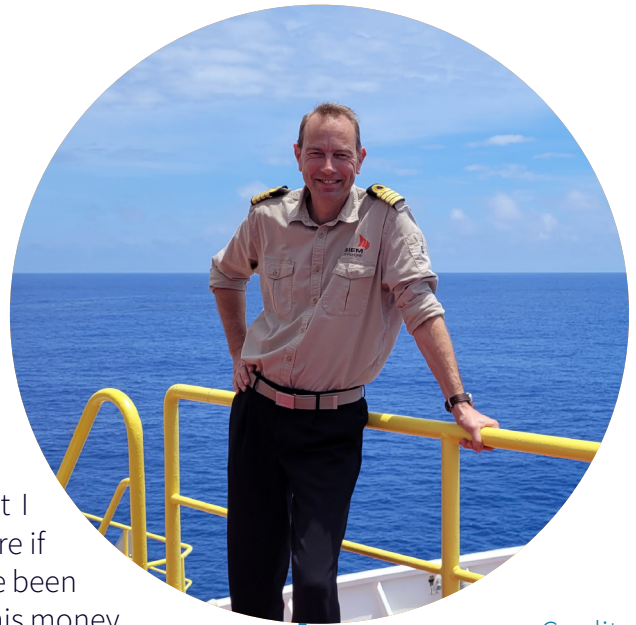
written by Captain Harm Nienhuis (Siem Offshore)

When I was a little boy, it was always clear to me that I eventually wanted to become a Captain. I just wasn't sure if I wanted to do this on a plane or on a vessel. It must have been in my genes, as my father was actually both. He earned his money sailing on commercial ocean liners and he then spend it at home, flying single handed acrobatic airplanes.

His career ended rather abruptly. After giving one of his stunt shows, he managed to crash his airplane right behind my grandmother's backyard, while she was watching (the crash was not his fault, by the way). It must have been quite a show!

The good thing about this crash, it is the reason I exist. They managed to find (most of) his body parts, including his sense of humor, stitch everything back together and after two years in the hospital, he was ready for a new part of his life. Together with the nurse that he met in the hospital and who supported him all that time.

Not much later, I came into this world. When growing up, I spent many summer holidays and weekends with my dad on his little sailing yacht, just the two of us, listening to his sailing stories over and over again. These stories never bored me, although after a while, the same stories kept coming back over and over again. And like so many little boys, I wanted to be exactly like my dad. Initially I wanted to be a navy pilot, flying from aircraft carriers in the ocean, combining both worlds. Unfortunately, the Dutch Navy does not have aircraft carriers and besides that, I turned out to be too tall to fly fighter jets.



Credit:
Franky Villafranca
& IODP.



So my path became clear; the ocean was calling. After four years in nautical college, I started working for Dock Express, a company that used semi-submersible vessels to carry extremely large cargos all over the world. Pretty much everything bigger than an entire apartment building, from fully erected

LEFT: Beautiful weather and smooth seas give Captain Harm an opportunity to step outside and survey the horizon (Credit: Franky Villafranca). RIGHT: The Captain takes the wheel (Credit: Franky Villafranca).

container handling cranes to drilling rigs and from Navy submarines to multi-million dollar superyachts for the rich and famous. Then my company teamed up with AT&T, who had a fleet of cable laying vessels and were installing submarine telecommunication cables all over the world. It was the late 80's, early 90's, and data communication and computer companies were booming. AT&T needed their own vessels as stand-by / repair vessels for their ever growing network of cables and were looking for other vessels that they could quickly convert to cable layers for the installation of even more cables to meet the rapidly increasing demand. That is how I got involved in what we call Dynamic Positioning.

Normal ships have one (or two) propellers on their stern and can only move in the forward (or stern) direction, not sideways. Obviously that does not work when you are operating with equipment on the seabed and you need to keep the vessel stable in one position. The waves, current and wind will constantly push your vessel off position, so you add more propellers (called thrusters) on the bow and on the stern that can push the vessel sideways. Place a computer on the ship to control all these thrusters and you have a Dynamic Positioning System. From the first moment I got involved in this, I was fascinated by it. It still never ceases to amaze me that you can keep a huge 600 foot vessel in high waves, strong currents and wind in pretty much the same position for as long as you like. What I did not know at the time was that this entire invention of dynamic positioning now used in the entire offshore industry actually originated from the first true deep water scientific drilling project, called Project Mohole. But that is a whole other story...

Anyway, I had great times providing the entire world with the so much needed Gigabits for data transport, all the way up until the big bang of the internet bubble, just after the Millennium. Suddenly the demand for data cables plummeted and I found myself babysitting a laid-up cable layer. Time to move on, I entered the wonderful world of offshore diving. For about 10 years I had the privilege to command several diving vessels. Initially most of the work involved underwater installation and maintenance



FROM TOP: Captain Harm visits the core lab to learn about the Walvis Ridge from Expedition 397T core describers (Credit: Maya Pincus & IODP). Captain Harm congratulates geochemistry technician Oscar Cavazos on his new shellback status at the EXP397T Equator-crossing ceremony (Credit: Maya Pincus & IODP). EXP397T scientists receive a tour of the bridge deck (Credit: Maya Pincus & IODP).

in the oil and gas industry. But over the years, the demand for oil came down and the renewable energy market came up, so more and more of the work we were doing involved offshore windfarm installation. And to be honest, that felt pretty good, working for a better environment. So when I heard that Siem Offshore (the company that owns the *JOIDES Resolution*) was looking for a captain to help them build and operate a brand new cable installation vessel (to install windfarm power cables), I knew I had found my next goal in life. I spent the next three years in Poland, building the Siem Aimery. Unfortunately, the management of that vessel was transferred to another company, so after we completed the building, I continued my career elsewhere, to build yet another new cable layer.

It was while working for Siem Offshore that I first heard about the *JOIDES Resolution* and the fantastic program they were doing. Although I had never seen the vessel, just knowing of its existence was enough for me to try and get involved. At the time, my services were not needed, but I did make sure my boss knew I was interested. So when he actually contacted me a few years later and offered me a Captain's position on the *JOIDES*, it did not take me long to accept. And I have never regretted it for one second. The crew, the IODP staff, the scientists, the entire program, it is fantastic, mind boggling. Being part of something so important is an experience I will treasure the rest of my life.

It saddens my heart that this program is coming to an end after 40 fantastic years. Not so much for myself, I have no doubt another exiting job will find me again and I am just proud and honored that I have been part of this. But sad for the huge loss to the science community and to the entire world. In times like these, with global warming picking up the pace, what could be more important than continuing exploring our knowledge of our own planet?

But who am I to raise these questions? I am but a simple sailor, loving every minute that I am out here.



Siem Offshore carolers visit the captains during Expedition 368T (Credit: Chieh Peng & IODP JRSO).

Spotlight on... Laura Guertin

written by Maya Pincus (USSSP)



Credit:
Laura Guertin.

Dr. Laura Guertin is the kind of person who can't be stopped, not even by a hurricane. This literally happened when she left the northeast United States for graduate school at the University of Miami, Florida. With Hurricane Andrew quickly approaching Virginia Key, where the Rosenstiel School of Marine, Atmospheric and Earth Science is located in Biscayne Bay, "My first day of graduate school orientation was the evacuation notice to get out of the city."

"But that didn't stop me. I still completed my degree in marine geology and geophysics."

So what is it that led Laura to this dedication to the ocean, and to the geosciences? Like many of us in the scientific ocean drilling community, her involvement spurred from a love of the sea that was nurtured early on. As a young child, she and her family spent summers on coastal Maine, where she had the opportunity to explore to her heart's content. The highlights that she mentioned to me were the rocky outcrops begging to be played on, the endless sandcastles she constructed, and—I've never met another person who can say this—the lighthouses up and down U.S. Route 1 along the coast of Maine, of which she has visited every single one.



But this isn't exactly where her story began. Like many, her path to the geosciences was not entirely straightforward. She went off to college at Bucknell University with the plan to get her degree in chemical engineering. It didn't work out. What changed her mind? "One organic chemistry class. That's what did it." After that she was feeling a little lost (and who hasn't at this stage in their life?). The only guidance she had was the knowledge that she wanted to pursue some kind of science. As soon as she took her first geology class, she was hooked.

Drawn by her love for the ocean (and the requirement to complete a field course for credit), she enrolled in a summer field camp that focused on oceanography, giving her the opportunity to go out on

As an Onboard Outreach Officer during Expedition 390, Laura poses in front of the JOIDES Resolution derrick (Credit: Sandra Herrmann & IODP JRSO).

the water every day, just like the vacations of her youth. It turns out that one summer wasn't enough for Laura. During her junior year, she enrolled in an exchange program that allowed her to complete a semester at the Marine Biological Laboratory in Woods Hole, Massachusetts, engaging in marine geology coursework and field work. Between the summer field course, this semester "abroad," then two summer internship experiences with the National Oceanic and Atmospheric Administration, it was solidified for Laura. This is what she wanted to do.

Now, Laura is the sole geoscientist at the entire Brandywine campus of Pennsylvania State University. She offers introductory-level courses to people who do not plan to major in geology, or even in science at all. Some people would find this frustrating, discouraged that they were forced to exercise their talents in a place where they could only go unappreciated, but to Laura, this is an opportunity to change how her students see the world. For one, "My courses are really popular with students because there's no math prerequisite, and it's not chemistry or physics, which they're afraid of." But it's more than that. When she describes the classes she teaches, she speaks proudly: "In all my courses I emphasize Earth systems science. That's the main point of every single course I teach. There's the atmosphere, hydrosphere, biosphere, lithosphere... All of those connect and interact and react to one another, and even if you're in the middle of a continent, away from the ocean, you're actually not that far away from it. The ocean does connect back to you."

This is the motivation behind what most of us in the scientific ocean drilling community know Laura for: her seemingly endless supply of creativity with regards to science communication projects.

First it was Twitter and blogging. As part of a Teaching with Technology certificate in 2010, Laura began writing blog posts about geoscience pedagogy, educational technology, and science communication for Penn State. These posts were so successful that the American Geophysical Union (AGU) requested that she transfer her blog to their site, where she [still blogs today](#).

With each new school year, each new cohort of students, Laura asks herself, "What are different

TOP: Laura crafted "The Legacy Continues" to connect the history of DSDP Leg 3 with Expedition 390 (Credit: Laura Guertin). BOTTOM: Laura poses next to her "Cloud Cover" data visualization quilt (Credit: Laura Guertin).



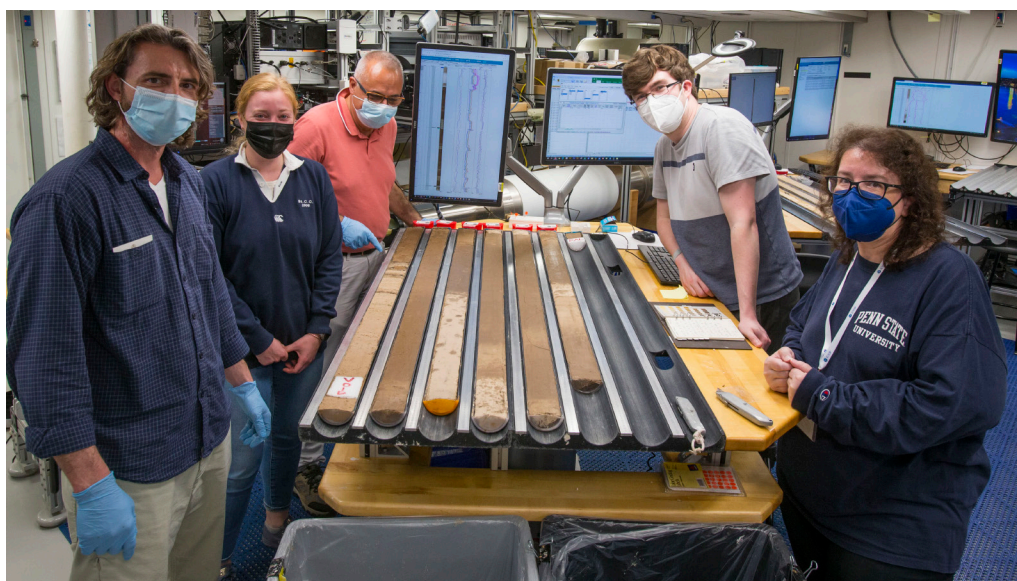
ways I can connect, not only with my own students, but to audiences outside the university?” This is so important to her “because Earth science matters to everyone,” driving her to move beyond words as her medium for scientific expression. She was already crocheting avidly, because it was a hobby in common she could use to stay close to her grandmother. Why not use her stitches to speak about science? One of her first projects illustrated temperature data from Philadelphia at intervals going back one hundred years. The death of her grandmother, and subsequent bequeathment of her grandmother’s sewing machine, inspired another shift, this time to quilting. Laura is now active in the quilting community, and adroitly uses fabric to visualize data and tell science stories.

Notable in her collection are the quilts inspired by her time aboard the JOIDES Resolution as an Onboard Outreach Officer for Expedition 390: South Atlantic Transect I. To learn about the history, science, and life at sea during the expedition (and how all that can be conveyed through cloth), check out Laura’s [quilting website](#), which she continues to update as she completes new quilts.



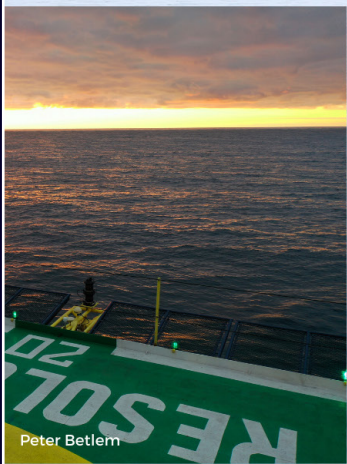
As if teaching, blogging, crocheting, and quilting isn’t enough, Laura is now focusing on another project: a community in the StoryCorps archives dedicated to stories of scientific ocean drilling. Rather than focusing on the science behind the expeditions, which is broadcast so well through peer-reviewed papers, blogs, social media, and more, Laura wants to emphasize the humanity behind ocean expeditions through audio narratives. As she adds new conversations to the collection, they will become a regular feature of the Drilling Dispatch, so stay tuned.

When you have a moment, make sure to browse through her many projects that synthesize science, communication, and art in a way that makes all three accessible to so many audiences. Who knows? Maybe you’ll be inspired to pick up a new hobby and tool for science communication, too.



TOP: Laura interviews an Expedition 390 micropaleontologist in the core lab for a broadcast outreach event. (Credit: Sandra Herrmann & IODP JRSO). BOTTOM: The Expedition 390 science party analyzes cores that were recovered during Expeditions 390C and 390E (Credit: Sandra Herrmann & IODP JRSO).

Photo montage... WORLD OCEANS



Expedition Update



More than 60 years after Project Mohole, the *JOIDES Resolution* has successfully drilled and collected more than one kilometer of mantle rock! LEFT: Sunrise view from the catwalk, along with sections of core recently brought on deck (Credit: William Brazelton & IODP). RIGHT: Gordon Southam (Microbiologist, The University of Queensland, Australia), left, and Johannes Lissenberg (Igneous Petrologist, Cardiff University, UK) take samples of a recent core on deck for analyses (Credit: Erick Bravo & IODP JRSO).

Find us on the web!



You don't need to wait for next month's newsletter to keep up-to-date with our adventures in science! We update our blog and social media regularly. Get involved, and stay in touch!

Twitter: [TheJR](#)

Facebook: [JOIDES Resolution](#)

Instagram: [joides_resolution](#)

Web: <https://joidesresolution.org>

Call for contributions

If there's one thing that can be said about the International Ocean Discovery Program (and the Integrated Ocean Drilling Program, and the Ocean Drilling Program, and the Deep Sea Drilling Program), it's that we are a tight-knit community. Just as much as this newsletter is for you, we want it to be from you, too! In future editions we will highlight our readers by featuring the following community contributions:

- **From the Field** - Have you had an experience with scientific ocean drilling that you want to share? Write a piece to tell us your perspective “from the field” for our next edition. Bonus points if you include some pictures!
- **Scientist Spotlight** - Do you know someone who's making waves in the ocean drilling scene, whether it's a grad student or accomplished scientist? Send us a nomination! Briefly tell us why this person deserves a shout-out, and ideally how to get in touch with them. Self-nominations are also accepted.
- **Photo Montage** - Thanks to everyone who submitted photos for past themes! For the next issue please send in your photos that illustrate the theme **Selfies at Sea**.
- **Creative COREner** - Scientists are creators too! Send in your paintings, drawings, digital designs, poems, short stories, sculptures, or any other ocean science art you've made.

Send your contributions (and questions and concerns) to mpincus@ldeo.columbia.edu no later than June 20, 2023 to be featured in next month's newsletter.

See you next month!