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Oceans of Discovery

When famed ocean explorer Robert Ballard and his research team were exploring the complex seamounts off the British Virgin Islands earlier this month from their ship, E/V Nautilus, a group of Santa Barbara elementary school students was right there with them. Virtually.

Thanks to a 24/7 satellite feed from the Nautilus to the auditorium at UC Santa Barbara's Marine Science Institute (MSI), some 100 fourth-, fifth- and sixth-graders from Adelante Charter School got a peek into Titanic discoverer Ballard's current expedition — and the chance to chat with experts on board.

The program co-hosted by MSI and the Channel Islands National Marine Sanctuary (CINMS) was a pilot event of what UCSB and Ballard, a 1965 alumnus, say will ultimately become a standing feature of the campus's new Outreach Center for Teaching Ocean Science (OCTOS).

"Fishies!" went the cry the moment the stream was live, transmitting real-time underwater action from Hercules, one of Nautilus' remote-operated vehicles (ROV), as it cruised the Anegada Passage. "Good morning, UC Santa Barbara! Hi from E/V Nautilus," came the reply from Ballard team members Kelly Moran and Art Borja.

Over the course of an hour, as they enjoyed a lively Q-and-A session with Moran and Borja, the students caught sight of a host of creatures, including a bobtail squid, a swimming sea cucumber and an octopus, thanks to Hercules. The ROV also found and retrieved a sample from an unidentified rock during the live broadcast.

“We’ve been diving on underwater volcanoes, exploring them for the very first time,” Borja told the kids. “We’re seeing what’s there, looking at the biology and geology. And we’re constantly on the lookout for new forms of life.”

Before fate brought Ballard to UCSB, where he majored in chemistry and geology and completed the U.S. Army’s ROTC program, he grew up in San Diego. He lived near the ocean, at Pacific Beach, next to the renowned Scripps Institution of Oceanography. Early on, Ballard said, he had his sights set on a marine life.

“As a kid, I wrote a Dear Santa letter to Scripps,” he recalled. “‘Dear Scripps, I want to be an oceanographer.’ They wrote back to me and said they had a program for kids. I was in junior high. That changed my life. I ended up meeting Bob Norris, who was teaching marine geology at UCSB. He invited me to Santa Barbara, I came, and the rest is history. But I saw how important that was — that they had answered my letter.

“When I found the Titanic, I got 16,000 letters from children the first week, asking ‘Can I do what you do?’ and ‘How can I be you? What do I have to do?’” Ballard continued. “That’s what led me to doing these live broadcasts. It’s hard to ignore 16,000 letters when I wrote one of those myself as a kid. And I really enjoy sharing my experiences.”

Which is why Ballard is teaming with his alma mater and the National Oceanic and Atmospheric Administration’s CINMS to bring his education-aimed broadcast program — Nautilus Live, as it’s known — to campus as a regular offering of OCTOS, once the center is up and running. UCSB is leading an ongoing $10 million capital campaign to design and complete state-of-the-art educational exhibits, such as an interactive virtual dive display and an immersive theater, planned at OCTOS.

“We want Santa Barbara to think of the Nautilus as theirs, because it is,” said Ballard, a newly elected trustee of the UC Santa Barbara Foundation. “We want people from UCSB and the Santa Barbara community — students, teachers, educators, scientists — all to say, ‘That’s my ship.’”

UCSB wants its campus and greater communities alike to feel the same way about OCTOS, which will serve as an extension and expansion of current outreach efforts, according to MSI’s Scott Simon.

“OCTOS will leverage the collective resources of MSI and the National Marine Sanctuary to build a more robust program, including our touch tanks, lab experiences, and the telepresence experience with Bob Ballard’s Nautilus Live,” Simon said. “This dovetails very nicely with what we’re already doing. And how cool is it for local kids to come to college for a day and get that experience right here at UCSB?”

Very cool indeed, by all indications.

The recent Nautilus Live session with Adelante Charter School — kids asked the scientists about everything from what they eat on board to how it feels to find a shipwreck — culminated with some parting words for the students from Ballard himself.

“Deep ocean exploration is important for our planet’s future,” Ballard said. “I can’t think of anything better than having you come with me and letting you experience it. [With Nautilus Live], you can come aboard the ship and see it as it’s happening. You can say, ‘I was there.’”

When the program concluded, emcee Simon asked his young crowd, “So does anybody want to be a marine biologist now?”

“Me!” shouted several voices.

“I want to be an ROV pilot!” said another, just before someone else declared, “I want to be everything!”

And there’s the payoff. In addition to witnessing potential new discoveries underwater, the students may also have found something unexpected in themselves, according to teacher Paula Sevilla.

“Anytime we can get the kids — either literally or through technology — out of their own worlds to see other things, I think we allow them to dream about something they didn’t know was possible, and I think that’s incredibly valuable,” said Sevilla, who heads a fourth-and-fifth-grade combination class at the Spanish-English immersion school. “I think they’ll take this with them. I think it will help them push through barriers and obstacles. And I think it will not only help their current learning about ecosystems but also to continue on and fight for their futures.”

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.