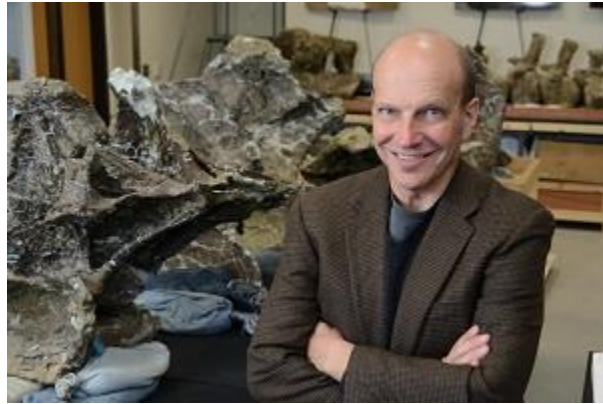


Dr. Kenneth Lacovara, Class of 1984, Rowan University

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Rowan University alumnus Dr. Kenneth Lacovara likes to look old – more accurately, likes to look *at* old, decrepit, and sedentary life. His old goes beyond the AARP old – he is into 65 to 77 million years old.



The world-renowned paleontologist Dr. Lacovara joined Rowan's faculty in 2015 ago to become the founding dean of Rowan's School of Earth and Environment. He also serves as director of the Jean & Ric Edelman Fossil Park of Rowan University, where he has conducted globally significant scientific research at the location – a former sand-mining pit only four miles from Rowan's main campus.

Earning his bachelor's degree in geography (with minors in biology and anthropology) from Rowan University (then called Glassboro State College) in 1984, Dr. Lacovara's international fame stems from his discovery of the giant plant-eating dinosaur *Dreadnoughtus schrani*. His local rock-star status is due to his unearthing scientifically significant Cretaceous-age fossils at the quarry in Mantua Township.

Growing up in South Jersey – the land of “sand and, mud and no rocks” – Dr. Lacovara said he “was turned onto rocks and fossils at a very young age ... at a Cub Scout meeting. I was exposed to sedentary rocks that contained fossil treasures. It blew my mind, and right then and there I decided I wanted to be a geologist. My education at Rowan sealed the deal,” he said.

His options for college were limited by lack of money. From a family trying to make ends meet on his dad's salary as a carpenter, he knew that he had to go to a school that was close to home and very affordable.

“I got really lucky with Rowan,” he said. It met his financial criteria and offered the geology courses within the geography department that propelled him into an extraordinary future career of looking back billions of years. Professor Jerry Lint was the first professor to get him out into the field to start digging. “The Rowan Geography Department was a very nurturing environment – perfect for an awestruck kid, raised in a blue-collar family with big dreams.”

After graduating from Rowan, he went onto a master's program in coastal geology at the University of Maryland and then a doctoral program at the University of Delaware, in coastal geology and molecular paleontology. He was teaching as an adjunct professor at Drexel University, where a cancelled class enabled him to attend a lecture by Dr. Peter Dodson, a famous paleontologist and author of many publications about dinosaurs. Dr. Dodson, impressed by Dr. Lacovara's passion and

knowledge, invited him to be part of an expedition in Egypt – a trip that ignited Dr. Lacovara's career.

Following several expeditions to Egypt, Lacovara put together his own team to explore the ancient past of southern Patagonia, Argentina, in 2004. They found promising remains that year. Upon returning, the following year, Lacovara discovered *Dreadnoughtus schrani*, in 2005. The massive plant-eater – belonging to a group of dinosaurs known as the titanosaurs – was 85 feet long, weighed about 65 tons – 10 tons heavier than a Boeing 737, heavier than 9 *T. Rex*! *Dreadnoughtus* roamed the southern tip of South America approximately 77 million years ago.

“It is the most massive land animal for which we can reliably calculate a weight,” Dr. Lacovara said. Seventy percent of the dinosaur's skeleton was recovered from 2005-2009 by Dr. Lacovara and his team, making *Dreadnoughtus* the most complete skeleton of its type ever found. The extraordinary discovery, reported in the journal *Scientific Reports*,” is by far the best example we have of any of the largest creatures ever to walk the planet,” Dr. Lacovara noted.

Rivaling his enthusiasm for the *Dreadnoughtus* discovery is his excitement about his work at the Edelman Fossil Park, which he considers to be a world-class site. The 65-acre property, a former sand-mining pit once owned by the Inversand Company, was a sea floor during the Cretaceous age (65 million years ago). It contains very well-preserved fossils of marine animals from the heyday of the dinosaurs. Dr. Lacovara and his post-docs and students have uncovered numerous articulated skeletons, leading the team to hypothesize that the animals were part of a mass die-off – linked perhaps to the asteroid-induced calamity that ended the reign of the dinosaurs 65 million years ago.

“It's a great story that evidence pertaining to one of the enduring mysteries of science – the extinction of dinosaurs – might be found in a quarry behind a Lowe's in southern New Jersey,” he said. The complex and difficult work of discovery is only one element of the gratification for the paleontologist. Equally thrilling is simply telling the story, inspiring the young – and the old – to embrace science, not only as a career but also as a way of life. He has lectured throughout the world and in February of 2016, he gave a [TED Talk](#) in which he detailed his unearthing of *Dreadnoughtus*. On TED.com, his talk is listed as one of the Top TED Talk of 2016, and as of October, 2016, has attracted over 1.23 million views. In it, he celebrates the Earth's geological history and contemplates a human's place in “deep” time.

In addition, the Edelman Fossil Park has generated “an enormous amount of enthusiasm for ‘citizen science.’” Dr. Lacovara hosts community dig days at the quarry in partnership with Mantua Township's Economic Development Office. The events give citizens' the opportunity to search for fossils at the site – and for Dr. Lacovara and his researchers to bring the excitement of science to citizens of all ages. Thus far, nearly 15,000 visitors have searched for fossils in the park.



“We get thousands of people signing up to participate in these dig days – indicating the incredible thirst people have for hands-on discovery. It’s important to show kids that science is a process, done by regular people. Demystifying that process is the best way to encourage young explorers to follow a pathway into the STEM (Science, Technology, Engineering, and Math) disciplines.”

In October, 2016, Rowan alumni Jean and Ric Edelman stepped up with a historic \$25 million donation to the fossil park. Their historic gift, the second largest in Rowan’s history, will support the construction of world-class visitor center and museum, that Lacovara says will feature the prehistoric creatures that inhabited ancient South Jersey. “The Edelman Fossil Park will be embedded in the community with nature trails, a paleontology themed playground and social and meeting spaces. It will draw people from all over the planet, on a voyage of discovery, and will help drive the economy of the region,” he says. (See press release below.)

“The Edelman Fossil Park will live on for centuries. It’s going to become globally treasured – and it’s going to do unimaginable good,” Dr. Lacovara said. Fossils are the “gateway drug for science. You get hooked and develop a scientific way for thinking and problem solving,” said Dr. Lacovara, thankful for the gateway that Rowan provided for him – as a student, as a professional paleontologist, and as a citizen of the universe.”

The Edelman’s gift will help Rowan create a vibrant Fossil Park and educational opportunities of international caliber, says Rowan President Ali A. Houshmand.

“The Edelmanns’ passion for sharing discovery and science will transform and expand Rowan’s capacity to educate for generations to come,” says Houshmand.

“Their vision and generosity will make it possible for tens of thousands of students, families and researchers to explore a range of hands-on sciences at a globally significant site – paleontology, of course, but also geology, biology, environmental science, and more. Visitors will be able to dig up the past and learn about the future of our world through many disciplines. The Edelman Fossil Park will be an international science center and a premier destination for our region.”