

UNIVERSITY OF CHICAGO

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BIOLOGICAL SCIENCES DIVISION

# Medicine

ON THE MIDWAY

AN ENEMY IN OUR MIDST



## Modeling monsters

To bring dinosaurs back to life, paleoartist Tyler Keillor first spreads his paints, clay and tools across tables in a high-ceilinged warehouse laboratory. Here, in the basement of the University of Chicago Enrico Fermi Institute, he reconstructs versions of the creatures that will go on display in museums, libraries and traveling exhibits.

Keillor bases his creations on the fossils that Chicago paleontologist Paul Sereno, PhD, discovers on his digs. These are often just pieces of bones that time has eroded. From them, Keillor uses clay to sculpt mirror images and build full figures, consulting Sereno throughout the process.

To most people, the actual fossils that paleontologists find might look “just like scraps,” Keillor said. However, he takes “the extra step to make everything gel.”

“I look at anything alive today with similar bone structures,” Keillor said. As an example, he points to a re-creation of *Rugops primus*, or “wrinkled face,” which he created by studying the weathered crest of a modern-day hornbill.

Keillor studied film, make-up and animation at Columbia College with notions of designing special effects in the entertainment industry. After several make-up projects throughout Chicago, Keillor realized he wasn't satisfied with his initial plans.

“I really wasn't contributing anything for all the effort that goes into creating illusions,” he said.

While working at a dental laboratory forming porcelain teeth, Keillor re-discovered his childhood fascination with dinosaurs and spent his free time sculpting miniature figurines out of clay and reading all he could find on the creatures. He then took a job maintaining exhibits at the Field Museum and attended a Sereno lecture, after which he approached the paleontologist about working on the fossils. Six years later, he is one of three preparators in Sereno's lab.

Keillor pulled together all his experience to help build “SuperCroc,” a six-foot long ancient crocodile skull. He developed removable teeth for the crocodile so that researchers could view how the skull was found (without the teeth) or how its intact skeleton would have looked.

“By now I have to remind myself how cool it is to work on these creatures that no one knows about yet, that I've only read about,” he said. “It feels great to contribute to the [public's] knowledge.”

—Katie Brandt





*On these pages: Animal models by Tyler Keillor; the artist with an archival casted head of "SuperCroc" (below). Photos by Dan Dry*