The late Pitt med prof Lewis Etter (MD '27) donated this rare translucent Spalteholz skull to Pitt. Its origins and history have kept another prof pondering for a decade.
Dennis Ranalli needn’t look far to enliven a humdrum day. Behind his office chair is a translucent human skull; and though Ranalli is arguably the living expert on such rare Spalteholz skulls, when this DDS, MDS turns his gaze toward “the Pittsburgh specimen,” he’s reminded that his investigations throughout the past decade have yielded almost as many questions as answers.

His office mate has a complete, perfect set of teeth that must have served someone very well until she died at about 28 years old. For perhaps five decades, this skull has rested in an 11-inch Pyrex glass sphere that is held rigid by glass rods. The sphere sits upon roller bearings on top of a truncated nose cone from a guided missile.

Ranalli, who is a professor of pediatric dentistry and senior associate dean at the dental school, encourages inquirers to consider what such a skull meant to understanding internal anatomy before the age of x rays and CAT scans. “We can look at the nerve canals in 3-D. We can see how the various bones of the skull fit together,” he says.

The specimen had gathered dust in the dental school’s learning center until the early ’90s, when Ranalli, as chair of that school’s centennial committee, set out to understand its history.

This is not the first extracurricular mystery that has intrigued Ranalli. He is perhaps best known for his investigations on detecting child abuse through dental clues and preventing traumatic dental injury in athletes. But he also has written about topics such as cleft lips and palates in ancient art; the history and depiction in art of St. Apollonia (patron saint of dentistry); and famous American historical figures who were also dentists. (The list includes Paul Revere, Old West outlaw Doc Holliday, novelist of the Old West Zane Grey, and football legend Jock Sutherland.)

Ranalli didn’t have much to start with except a 1973 Pitt Alumni Times article, which said that Lewis E. Etter (who was awarded his undergrad degree from Pitt in ’24 and his MD in ’27), professor of radiology at the medical school, gave the skull to Pitt—he also placed it atop the missile nose. Etter received the skull from Gustav Becky, who invented the Becky x-ray grid and was an associate of Werner Spalteholz, the renowned German doctor and anatomist who prepared the skull. Spalteholz’s Hand Atlas of Human Anatomy, a classic text that is still highly regarded, is in its 14th edition.

The Times reported that two other such skulls existed—one in New Canaan, Conn., and one in Dresden, Germany, and that the Pittsburgh specimen had been appraised at $50,000. But there is no byline on the article (no writer to follow up with), and the appraisal company named in the article seems to be key. “It’s like I’m looking for A through D, and I have B and C,” Ranalli says of this puzzle.

Another breakthrough came in August 2002, when a colleague from the University of Bonn located the second skull. It was not in Dresden, as expected, but in the anatomy collection of the University of Leipzig.

In Ranalli’s office, nicknamed “The Tomb” for its temperature (he likes to keep it chilly) and its mysterious occupant, the professor considers the specimen he has rescued from obscurity. Although his sleuthing has yielded some satisfying answers, questions continue to haunt him: Whose skull was it, and where did Spalteholz get his specimens? Where are the other remaining pieces of Spalteholz’s collection? Why did Etter choose a truncated nose cone from a guided missile for mounting the Pittsburgh specimen?

He’s still looking for the third Spalteholz skull. He imagines a reunion of sorts.