

## THE BODY FASCINATING

**Dissecting carcasses, and even human cadavers, gets my students hooked on learning.** BY HARRY HITCHCOCK

"IT'S AN ELECTIVE—MAYBE some will drop out." That's what I thought the first day, looking out at 29 students in an anatomy lab designed for 24.

So I pulled a deer head from the freezer and put it out to thaw.

The next day, Leslie took a bone saw and cut through the skull while all the kids gathered around, several deep, cell phone cameras in hand. A few moments later, the brain plopped out, Hayden passed out, but nobody dropped out. (Hayden was good to go the next morning.)

Leslie is a third-year student in my high school anatomy and physiology sequence. She has built clay models of the human musculature, dissected mammal carcasses, skinned a mammal for tanning, rebuilt its intact skeleton, and dissected human cadavers—twice!

Over 100 students—20 percent of my school's juniors and seniors—take anatomy. They learn about the musculoskeletal system using models, disease-free carcasses I get from trappers, and body parts from game processors.

“Elyssa took the lens from a deer's eye and used it to read fine print.”

About one quarter go on to physiology, where most of them work on a human cadaver. That requires parental permission and is entirely optional.

It all started five years ago, when I became enamored of dermestid beetles and bought a small colony. These insects are used to clean meat off small, fragile bones. My class and I used them to clean a dead hummingbird that a student had found. They were amazed at its delicate skeleton. We did a squirrel next, a snake,

and a bullfrog that died while trying to swallow a squirrel.

Soon, I had old freezers full of beetles, and we were cleaning all manner of bones. Often, I would come to work and find a fresh road kill bagged and on my desk—courtesy of colleagues. Then I met a trapper who still gives me disease-free carcasses. Three years ago, we began working with larger carcasses and the kids built museum-quality skeletons such as coyote, bobcat, otter, and fox. They researched the natural history and the relationship of form and function via comparative anatomy.

We do the cadaver dissections twice a year in a friend's lab at Pellissippi State Technical Community College.

All this takes money. We have raised over \$40,000 for models, skeletons, carcasses, probes, and computer technology. Our community and administration and Oak Ridge Associated Universities have been extremely supportive.

When people hear about my work, "cadaver" grabs their attention, but that's not the essence of it. The essence is a safe room of active individuals learning what they are truly interested in—something they relate to in a deeply personal way. I tell them, "You have experienced all you see here. You eat, see, breathe, jump, your heart beats, your skin grows—here you can try to understand what makes it tick."



Whitey Hitchcock and student Austin Leedy dissect a beaver carcass.

I hear: "What's this—the liver?" "The ovaries are so small!" "Look how these bones connect." No one sleeps.

I have watched Austin measuring the intestines from different animals to see whose is longest. Elyssa took the lens from a deer's eye and used it to read fine print. Erin and Austin removed an amniotic sac with beaver fetuses, and then "broke the water" themselves. The baby beavers went home with them in a jar. Another time, a local vet helped the kids "neuter" a coyote carcass on one side, and then do a vasectomy on the other.

Every stomach's content is examined.

What's the result? A thirst for knowledge, and the start of a lifetime of learning for my students. I have an enormous stack of letters saying, "I learned how to learn."

The secret formula for true learning is friends sharing a passion. I believe I will leave this life with many friends. I will also leave them my own gift as a cadaver.

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