

Secrets of the Bones

Hands-on Learning in the Bone Museum

STORY BY PAM GLEASON, PHOTOS BY PAM GLEASON & PAM ECKELBARGER

Pamela Eckelbarger and Diane Dzingle have an unusual obsession: bones, specifically the bones of horses. Both women are Aiken County residents who practice bodywork – Pam’s business is called Equus-Soma and Diane’s is Back in Balance – and they met while studying the Masterson Method, a form of equine bodywork. Both have clients in Aiken and are dedicated to helping horses perform at their

direction, and soon Edge joined Petey and his friends at Pam’s farm.

As the bone collection grew, space for it became tighter, and so Pam and her husband converted a three-bay garage on their farm into an equine osteology museum and education center. The Equus-Soma Equine Osteology Learning Center now has about 25 horse skeletons, not all of them complete. Most of the skeletons are essentially collections of separate bones, but Diane is in the process of piecing Edge together as a complete, standing articulated skeleton, which will help demonstrate exactly how the system works and how a horse moves.

“We have a lot of bones,” says Pam with a laugh. “There are bones in the barn, bones in the tack room, bones in the wash stall . . . we need to expand.”

Pam and Diane say that the learning center has two primary goals. The first is to learn and the second is to teach.

“For me, the priority is researching, learning and studying, and then passing that knowledge on through education,” says Pam

As far as the educational component goes, Pam and Diane give guided tours by appointment to groups and individuals. They have also given talks and full day seminars, demonstrating various aspects of equine anatomy that the average horseperson does not understand very well.

The research component of the project involves examining the bones and the skeletal systems of individual horses for abnormalities, especially



Pam Eckelbarger and Diane Dzingle in the museum



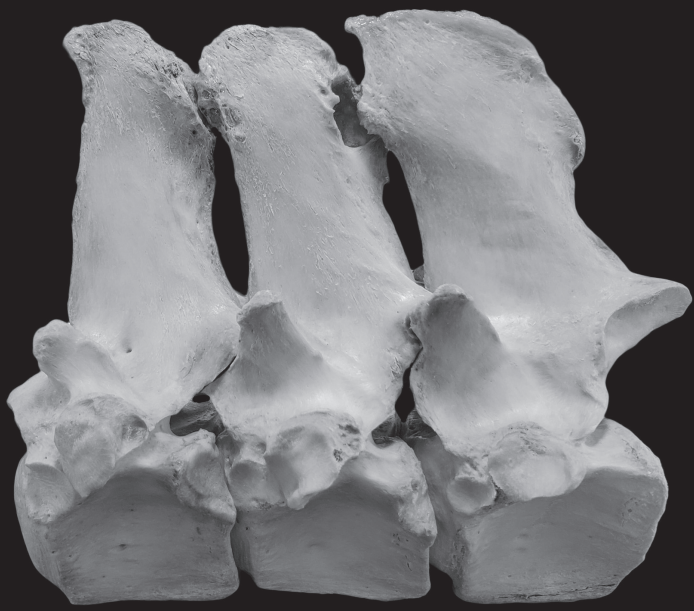
best through various therapies.

Several years ago, Pam started down a new avenue of her equestrian education when she took a three-day course on equine dissection. After this she decided that she wanted to have her own horse skeleton so that she could better explain anatomical issues to her clients. Buying a horse skeleton was prohibitively expensive, so instead, she dug up the bones of Petey, her old event horse, who was buried on her farm in Maine. She brought the bones back to Aiken in plastic tubs and started to examine them more closely.

Studying Petey’s anatomy, she soon discovered the evidence in his bones of traumas and injuries that had gone unnoticed when he was alive. This led her to wonder about other horses. How many of them had secrets in their bones? It was not long before she ended up with another skeleton, and then another. She started showing her horse bones to other interested people – horse owners, equine therapists, saddle-fitters, pony-clubbers – and discovered that other people were almost as fascinated as she was. One of those people was Diane Dzingle. Diane wanted to have her own skeleton, and soon got permission to dig up the bones of one of her client’s horses, a 28-year-old Quarter Horse named Edge. She unearthed and cleaned the skeleton under Pam’s

the skeletons of horses that were known to have performance, behavior and physical problems when they were alive. Diane and Pam stress that neither is a veterinarian, and they are not able to diagnose any disease or syndrome. However, they can look at the bones and identify things that are not normal, some of which have already been associated with specific syndromes, and some of which have not. Although there are a handful of equine osteopaths around the world who make scientific studies of equine skeletons, this is a small group, and the bone collection in Aiken has the potential to make significant contributions to the field, especially since, in the majority of cases, Pam and Diane have full histories of the horses’ lives.

Interest in the Equus-Soma bone project really took off in 2019, after Pam agreed to examine the bones of Apollo, a Thoroughbred gelding owned by a friend of hers from Maine. Apollo, a beautiful and seemingly talented gelding, had exhibited erratic behavior during the few years that his owner had him, and, in his eighth year had become aggressive and dangerous. After efforts to find out what was wrong and implement a cure proved fruitless, his owner reluctantly euthanized him in 2018. He seemed to have bouts of terrible and intractable



Apollo: a severe case of kissing spine. One bone has worn a hole in its neighbor.

pain and was a danger to himself and to the people around him. After he was euthanized, his body was sent to a company in Maine called Compassionate Composting. About a year later, when the composting was complete, Pam collected his bones and brought them back to Aiken.

Right away, she discovered an abnormality in his spinal column, something that he was born with. In addition to this congenital malformation, he also had other problems that may have been the result of compensating for the original abnormality and could well have caused him significant discomfort. One of his problems included kissing spines. Horses have long thin bones in their backs that stick up from each vertebra to provide additional protection to the spinal column. Normally, these “spinous processes” are evenly spaced and do not touch. Kissing spine is a syndrome in which the ends of the spinous processes touch or rub on one another. Apollo’s kissing spine was so severe, one of his vertebra actually wore a hole in its neighbor.

How much pain would that have caused?

“A whole lot!” says Pam.

Apollo’s story was posted online and soon went viral, eliciting interest and responses from all over the world. Veterinarians and equine body workers were curious about Apollo’s bones, but so were people who also had horses with unexplained aggressive behavior or neurological symptoms. Many of these people had tried multiple different therapies and training techniques with their horses, none of which had worked. For many people, Apollo’s story was the beginning of an awareness that “bad” behavior in horses might have causes that go deeper than training issues or injuries and may have nothing at all to do with the horse’s attitude. Some horses might be in pain because there is something fundamentally wrong with their skeletons.

In fact, Pam and Diane say that they have found malformations in many horse skeletons, some of which can be associated with known problems in the horse’s life, and some of which can’t. The serious spinal malformations they have encountered, however, have always been associated with specific behavioral or performance problems. And these spinal malformations, which are present at birth, are surprisingly common.

“We want people to be aware that when they have a horse that they feel is naughty, that pretty much every time there is an underlying reason,” says Diane. “Unfortunately, we can’t always get right to it or find out what it is, but we want people to realize that it isn’t necessarily that you have a bad trainer or a bad horse. There is a reason for it.”

“You can’t always find these things in an x-ray,” adds Pam. “So that means we have to listen to the horses a little closer. When they tell you that something is wrong, you have to believe them. And if you try different things and none of them work, the answer might be in the bones.”

Pam and Diane say that there may be another place that has

collections of equine bones similar to Equus-Soma where horsemen are invited to come and learn, but they are not aware of one anywhere in the world. In addition to skeletons with abnormalities, the learning center also has normal skeletons, including a particularly instructive series showing the maturation of the skeleton. One thing that this series demonstrates is that 2- and 3-year old horses have bones that are nowhere close to mature, and that starting them under saddle at such a young age is probably a very bad idea, especially for high stress sports such as racing.

Being able to see, touch and hold the bones in the little museum is an education in itself – they are clean, odorless, and surprisingly beautiful. Both women are passionate about the project, eager to share what they have learned, and have an enthusiasm for their subject that is contagious.

“The big thing we want to do is just bring awareness, and if people want to be educated, we’re more than happy to have them come for a tour,” says Pam, explaining that private tours and seminars can be scheduled on the Equus-Soma website for a nominal fee.

“We’re always discovering something new,” adds Diane, who laughs along with Pam as they acknowledge that their deep interest in the equine skeleton is unusual. In addition to whole horses, they have also taken some donations of individual legs. To reduce these to just the bones, they compost them in manure, using the methods perfected by Compassionate Composting in Maine.

To the outsider, this all may seem a bit strange, and even macabre. But they say they have found a small international group of people who share their passion: Pam is even on her way to England later in the year to attend a standing horse dissection, which provides a rare opportunity



to see how all the bones, joints, ligaments, tendons, fascia and muscles work together.

Are more people getting interested in this kind of in depth study of anatomy?

“In our world, yes!” says Pam laughing again.

“But we know we are a little strange,” admits Diane. “We’ve talked about having a reality show.” 🐾

For more information or to schedule a tour, visit equus-soma.com