

HEART OF A HOOFBEAT

I

Heart of an Ancient Hoofbeat



How did ancient people value horses?

When did people first domesticate horses?

What was discovered in the dry riverbed of the St. Mary Reservoir in southern Alberta?

Why was a horse buried with a Saxon warrior?

“While horses made good eating, they made even better backpacks. With horses doing the carrying, families could move with greater ease from one campsite to another. Then came the day when someone, for whatever reason, climbed on the back of a horse. Personal mortality aside, the concept was a very progressive thought. If a horse could carry the baggage, why couldn't it carry a human? It was the ultimate Eneolithic extreme adventure providing a not-to-be-forgotten moment of entertainment for watchers near and far. That ride likely gave the rider a new appreciation for the impact of hooves, an aerodynamic understanding of vertical lift and a futuristic grasp on rapid transit atop 400 kilograms of attitude charging out of control across the grassland...”

From Ch. 1, p. 23, ©Earthways Media Ltd.

Chapter 1 explores people's ancient appreciation for horses around the world. The chapter opens with the alluring mystery of the discovery of rock art on cave walls in southern France. It documents the ancient carvings that have been found on ivory, on rock walls, and as huge etchings on hillsides. It tells the story of the discovery of a horse skeleton 11,300 years old lying by the spearheads that had been used to kill it. The chapter explores the archaeological work done in Kazakhstan in search of the animals' early domestication then follows the story of the horse through classical and historic times until it was brought to North America by Spanish explorers.

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2

The Horse and the Dawn of it All



Where did horses come from?

How did they evolve?

Why did they disappear from North America?

How many wild equine species are there in the world today?

“Despite all the inconveniences of forest dwelling, life for the little dawn horse was pretty good. The size of a modern-day beagle, it trotted through the early Cenozoic subtropical forests of what would be North America and Europe 55 million years ago. The huge, terrifying dinosaurs were gone, the climate was warm and food and water were abundant. There was ample shelter, plenty of company and, if they ran fast enough, places to hide from ill-tempered enemies like the two-metre Diatryma and others of the clawed, fanged and beaked variety.”

From Ch. 2, p. 37, ©Earthways Media Ltd.

Chapter 2 follows the evolution of the horse in North America from its origins 55 million years ago to their return to North America with the Spanish explorers and their wild dispersal into the grassland range of their heritage. The chapter not only documents the physical changes the horse went through (feet, leg length, body changes, teeth and jaw) but also the climate changes that brought about changes in the vegetation horses depended on. At one time there were many species and subspecies of horses but today there are only seven wild equid species, all of which are threatened to one degree or another.

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3

Getting Together



Why do horses band together?

Do they have a hierarchical structure?

Do they play or watch out for each other?

How do newcomers fit in?

“Friendship leads to play which is enjoyed by horses of all ages but mostly those in their younger years. Why animals play is rooted in the complex social structures of mammals and among horses the essence of play is bluffing and mock aggression leading to dominance. A day-old foal plays around its mother by cantering in circles, sometimes nickering to her each time it passes her. As they grow older and become more confident in the herd, they will play with others...”

From Ch. 3, p. 61, ©Earthways Media Ltd.

Chapter 3 explores how horses developed the herding instinct some 17 million years ago as the need to become gregarious grew with their expanding grassland landscape. But with it came the need for structure in a complex hierarchical band. The chapter follows Fari and Sunny, Dudley and Roanie, Blaze and Lucy, Rosie and Cammi as they respond to their natural instincts following trails, observing their surroundings, reading the wind, navigating terrain, growing and learning through play, enjoying the intimacy of grooming while assessing the perceived threat of a stranger. As explored in this chapter, “more frequently than we realize, the life of the domestic horse is played out in the psychological boundaries of a world where ancient rules of behaviour are deeply embedded in wild instinct.”

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4

Heart of a Stallion



Do young colts play with older horses?

Do domestic geldings behave like wild stallions?

Do stallions form alliances?

What is a bachelor band?

Does a gelding form an attachment to a special mare?

“Learning to be one of the guys starts just after birth and the first order of go for newborn colts is play. After the arduous task of being born, foals just love to have fun, kick up their heels, and do the stuff that is the universal code of behaviour for all mammals – playing, nursing and sleeping. Once they have the rudiments of leg co-ordination worked out, there is no end of mischief they can run into. And since mom is never far off and packs lunch wherever she goes, take-out is just a five-second sprint from a foal’s adventure playground.”

From ch. 4, p. 71. © Earthways Media Ltd

Chapter 4 explores the behaviour of foals, colts and geldings and how young male horses form strong bonds with other males as they learn to be part of the band. The chapter features the engaging stories of Duncan and Spike, Shadow and Chico, Socks, Jack, Bucky, Lazer and Khayo, and Handsome and Hero. Each of them through story and anecdote show how closely aligned the behaviour of geldings can be to their wild stallion ancestry.

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5

Heart of a Mare



What is a dominant mare?

How does a lead mare protect the band?

What is colostrum and why is it so important?

Do mares form special friendships?

Do broodmares use other herd members as babysitters?

“The foal moved again. Daisy stared, focusing more clearly. It was as though she was realizing for the first time that she had company.

“Maternal instincts flooded her mind and body. She made the softest whickering sound, barely a flutter, the tiniest whispered greeting. It must have been the same kind of sound that her wild cousins would use to greet a newborn without alerting predators. The foal nickered its response quick, sharp...”

From ch. 5, p. 89. © Earthways Media Ltd

Chapter 5 explores the behaviour and leadership qualities of mares in a band. Through the stories and anecdotes of Daisy, Maisie, Shaayla, Tauri and her foal Centabi, Pera, Sadie, Lucy and Fari, the chapter documents how mares raise their foals, how lead mares assert their dominance, how mares show interest in another during a heat cycle and how they support and protect each other in the face of perceived threats or challenging situations.

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6

The Dancing Horse



Do horses dance?

Why did they develop the need for speed?

What was discovered in the ancient lava beds in Laetoli, Tanzania?

What are symmetrical and asymmetrical gaits?

“All the movements of wild equines are the heritage of domestic horses. In the training arena and the show ring their actions are refined and polished through a regimen of conditioning and training to showcase the brilliance of their power, cadence, rhythm, energy, balance and agility.”

From ch.6, p. 105. © Earthways Media Ltd

Chapter 6 explores the biomechanics of horses. It looks at how perfectly proportioned horses are to being able to attain speed on long, slim legs and maintain speed over distance. It explores the way gaits developed throughout their evolution and why they developed the ability to move and adjust their speeds with the greatest efficiency of energy consumption. Horses moved constantly to seek shelter and food. They performed the dancing steps in the foreplay to breeding. They became as mentally dependent on movement as they were physically capable of it. Movement became their language and horse bands were orchestrated through the moving expressions of dominance and submission.

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7

Body Talk



What is body talk?

How expressive is a horse's face?

How do they communicate danger, irritation, or fear?

How do horses interpret their world?

“The way a horse carries its body imparts a great deal of information to others around it. When relaxed, a horse's profile is one in which the neck, back and hindquarters are in a gentle horizontal line, the tail is loosely hung and the head is held in a comfortable position in front of the chest. But once alarmed or under threat, the demeanor of the horse changes dramatically. Defense instincts transform the animal into a profile of hugeness....”

From ch. 7, p. 116. © Earthways Media Ltd

Chapter 7 examines the way a horse uses all the nuances and movements of its body to communicate with others. The flick of an ear, the flare of a nostril, the slant of an eye, the ripple of muscles, swing of a rump, toss of the head or a raised hind leg instantly let another horse know what one is thinking or feeling. Welcome or not, those slight movements are clear communication indicators. While they may convey moments of agitation between horses in a band, body language becomes an indicator of survival when a horse perceives a threat from beyond the safety of the herd. The chapter looks at their senses of smell and hearing and examines their wide range of vocal abilities, each sound imparting a different meaning to others.

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8

The Thinking Horse



Are horses smart?

Can they reason and associate one experience with another?

How good is a horse's memory?

Can they discriminate and categorize?

“Simon, a purebred Arab, was three years old when his training was about to begin. But just before starting, he was kicked by another horse and required recovery time. Meanwhile the owner started another horse, King, on long lines. Simon could clearly see the corral from his enclosure and he watched as King was put through his paces. When Simon started training, he moved around the corral doing King's entire routine as though he had been doing it himself all the time.”

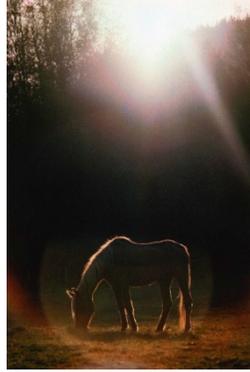
From ch. 8, p. 137. © Earthways Media Ltd

Chapter 8 explores how horses think, reason, categorize and sort their world in a way that makes sense to them. From OD's experience with the corn stalk, the chapter follows anecdotes and stories about the learning abilities of Shahsirr, Sam, Simon, Bucky and donkeys Dixie and Sunshine. The chapter looks at the learned abilities of other mammals then shows how horses also have some similar accomplishments such as tool use (practiced by chimpanzees) and the acquired benefits of shared knowledge (documented in elephant research).

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9

Ch'i of a Hoofbeat



Are horses sentient beings?

Can horses experience grieving, loss, sadness?

Are they able to sense sorrow in humans?

Do they say 'goodbye'?

“A warm peacefulness settled over me as she and I stood there together. Time stood still. She didn't move. Her head remained lightly pressed against me. I stroked her silky, smooth neck and whispered to her how sorry I was that she had lost her baby. Her body relaxed as I touched her. I could feel her pain. It emanated from her. There was no doubt that the mare was grieving. Her profound sadness touched me deeply. She needed comfort and wanted someone to understand her pain. In the short time she stayed with me, we bonded through mutual sorrow.”

From ch. 9, p. 148. © Earthways Media Ltd

Chapter 9 explores the rich sensitivities of horses and their ability to express emotion beyond the boundaries of the senses. This chapter shares anecdotal stories of animal emotions and their deep connections to companions. It tells the poignant stories of Sugar Lou, Zona and Penny, Laurie's experience with a Missouri fox trotter, and the story of Star. To honour all the horses that people have loved and lost, the Spirit of the Horse Memorial Garden is a sanctuary where people can go to think, to remember, and to wonder about their spirit. Poet Jim McGregor visited the garden and his inspired poem graces this chapter.

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10

Heart of a Future Hoofbeat



Are wild horses endangered?

How have captive breeding programs helped wild horse species?

What is the future of horses and why are they valued as grazing animals?

Are wild horses in North America ‘feral’ or a ‘reintroduced species’?

“The story of the Przewalski’s horse is testimony to people’s devotion to horses around the world. For thousands of years, horses have given so much to the history, culture and expansion of human civilization. Today, people are determined to give back with a resolve to save the last of the wild ones.”

From ch. 10, p. 162. © Earthways Media Ltd

Chapter 10 focuses on the status of the world’s wild horse species and their ancient cultural heritage. It looks at the conservation work that has been done to preserve and manage those at risk. In addition, the chapter looks at the recognition given horses as valuable grazers and how, in Europe, they have been used in recent years in conservation grazing projects to help restore damaged habitats. Horses not only consume a large bulk of food through constant grazing but they create mosaics of landscape such as patchworks of lawn among grasses of different heights thus engineering ecological niches that are preferred habitat for other species. The chapter explores the status of wild horses in North America and examines the scientific support for feral horses to be reclassified as reintroduced species.