A trot through time

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Horse Power: A History of the Horse and the Donkey in Human Societies. By Juliet Clutton-Brock. Harvard University Press/Natural History Museum: 1992. Pp. 192. \$29.95, £19.95.

IN AD 441, the Huns came boiling out of Asia, galloping west and south to begin the dismantlement of the Roman provinces. They were neither the first nor last great eruption from this region. From the Scythians through Ghengis Khan to the Tartars of more recent memory, this broad belt of grassland ecosystems, stretching from the Ukraine to China, has regularly sent out mounted hordes to remake history.

Horse power made possible these great convulsions of human society. Of all the 4,000 or so mammalian species still in existence, Equus caballus is probably the only one on which these great movements could have taken place. Humans can ride on elephants, asses, camels, buffaloes and cattle. The horse, however, has some especially useful structural features. Evolution in open grassland has produced a herbivore that can survive on any passing vegation. The horse is fast (the single-digit hoof is a help) and good at sustained work, because continuous digestion in the caecum does not need to be interrupted with long phases of rest for rumination.

Horse Power is the very appropriate title chosen by Juliet Clutton-Brock for her fascinating history of the horse (and its asinine cousins) from prehistory to last year's Derby. With a substantial record of investigation and publication in animal evolution and ethology, she brings a scientist's insight to the often contentious areas of evolution, archaeology and the history of human societies. At the same time, technical fundamentals of anatomy, physiology and the horse tackle mechanics of are documented. A pleasing aspect of the book, as she leads us through the often conflicting theories, is the combination of a scientist's detached assessment of the facts and a historian's appreciation of the place for inference, analogy and balanced rationalization. The result is a smoothly flowing text.

The plan, logically enough, is chronological. Horses evolved in Eurasia, and a reasonable speculation (for it can be no more) says that the heart of their range would have been somewhere north of the Caspian Sca. They spread across the Eurasian landmass and the Americas in prehistoric times, but did not exist in Africa. In America they became extinct, and were reintroduced five centuries ago. In Africa, they were also introduced by humans. Domesticated asses, however, have an African origin. The wild ass of Asia (the onager, also known as the half-ass) is not their ancestor. Doubts on this score have been laid to rest by differences in chromosome numbers and by cross-breeding studies which at a million dollars a time?

The final chapters deal with the fascinating story of how the Plains Indians in North America built a new lifestyle on horseback, and how the white man, again on horseback, brought the Indians down to earth once more; of how the Agricultural Revolution in northern Europe, which made the Industrial Revolution possible, was again horse powered; of the horse in war; and finally of today's leading entertainment industry, the racing business.

Given the amount of ground covered, it is inevitable that the book ends in a breathless gallop. Perhaps for the same reason, hooves seem to touch the ground mainly on English soil. Indeed, enthu-



J. Wootton's painting of the Byerley Turk (c. 1700), one of three Arabian stallions from which all modern racehorses and thoroughbreds are descended.

show that asses can be successfully crossed with the African wild ass, but not with surviving onagers.

In this broad sweep of equine history, there are some curiosities. Why did the stirrup escape invention until mediaeval times? Why did the horse as a draught animal not become popular until recent centuries, and then only in northern Europe? Was it simply because of the ease with which a yoke sits on the bullock's neck? What is the genetic basis for the extraordinary character of the ass-horse hybrid, the mule, and its reciprocal, the hinny?

Clutton-Brock has done a marvellous job of assembling illustrations along the way — from the fascinating grave goods from the frozen tombs of Pazyryk in Siberia, to Eclipse ("first, and the rest nowhere"). But where is Northern Dancer, who died in 1990 at the age of 26 after a career siring offspring siasm for the home team produces some partisan viewpoints: Blucher would be miffed to read that the charge of the Household Brigade under Lord Uxbridge decided the Battle of Waterloo, and the ladies of Bayeux would no doubt resist the suggestion that their famous tapestry is a product from across the English Channel.

These cavils apart, it is clear that , Clutton-Brock has succeeded in producing a book with the substance and authority to satisfy specialists in the field, and which can still catch and hold the interest of the general reader. \Box

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