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NOMADISM, HORSES AND HUNS*

There is no need to labour the point that the Huns all but lived on horseback, and in sheer horsemanship they far surpassed the best Roman and Gothic cavalry.¹

In the seventy years between the first clash of the marauders with Roman frontier troops and the battle at the *locus Mauriacus*, the warfare of the Huns remained essentially the same. Attila's horsemen were still the same mounted archers who in the 380s had ridden down the Vardar valley and followed the standards of Theodosius.²

WE HAVE ALL READ IN SURVEYS AND TEXTBOOKS THAT THE HUNS WERE the worst of the barbarians. True nomads, they entered late antiquity on horseback and rode roughshod over Europe for nearly a century. They lived on the gallop north of the Black Sea, west of the Carpathians, south of the Alps, and west of the Rhine. They were more than just a people on horseback: they were centaurs.³

For years these easy generalizations have appeared, and have even become introductory assumptions, in histories of this period. A look at any atlas, however, may lead to the suspicion that, west of the Carpathians, the topographical, climatic and range conditions differ sharply from those of the vast Inner Asian steppe. In this new environment, with its shrunken resources, could tribes continue a nomadic existence and field a nomadic horde? The answer to this question will have a decisive effect on our reconstruction of the history not only of the Huns but also of the Avars, Hungarians, the thirteenth-century Mongols, and the Ottoman occupation of the Balkans. This essay, frankly, attempts to unhorse most of the Huns, but even if the attempt fails, let it lead to a fresh look at what the sources tell us about the Huns and what anthropology tells us about nomads.

Since most of this essay is a search for large herds of horses, a few words about the significance of the horse for nomadic success are necessary.⁴ To begin, we are concerned with nomads whose oppor-

* Many friends were kind enough to look over this essay and offer helpful comments and criticism, but they are not responsible for my stubbornness in error. Particular thanks are due to my wife Molly and my father Frank Lindner. I would also like to thank Professors Clive Foss, Jonathan Marwil, Joseph Fletcher, John Fine, John Eadie, Walter Goffart and Jeffrey Bale. I wrote this essay for Professors John and Grace Smith, patient teachers, generous friends, artful horse-droivers.

¹ E. A. Thompson, *A History of Attila and the Huns* (Oxford, 1948), p. 51.

² O. Maenchen-Helfen, *The World of the Huns* (Berkeley, 1973), p. 201.

³ Claudian, *In Rufinum*, i. 329-30 (ed. H. L. Levy, Geneva, 1935, p. 73): "Nor did a dual nature better fit the biform centaurs to the horses of which they were a part (*nec nubigenas duplex natura bifformes cognatis aptavit equis*)".

⁴ The most influential modern study of a nomadic tribe is F. Barth, *Nomads of South Persia* (Oslo, 1961). For more recent trends, see Équipe écologie et anthropologie des sociétés pastorales, *Pastoral Production and Society* (Cambridge, 1979), and for historians' use of anthropological literature, see J. M. Smith Jr., "Turanian Nomadism and Iranian Politics", *Iranian Studies*, xi (1978), pp. 57-81.

tunities were superior to those of modern pastoralists, whom aerial reconnaissance has deprived of the military and political advantage of surprise. That advantage allowed the pastoral nomad to derive a livelihood not only from his herds but also, if a suitable opportunity appeared or was forced on him, by raiding his settled neighbours. The suitability of the opportunity was often a function of the terms of trade: plunder could be a response not only to a government's attempt to impose its authority over the herders, but also a way of lowering perceived high prices of grain, or an artificial means of obtaining a better price for one's own surplus animals at market. If the nomad could not strike a satisfactory bargain with the settled merchant or farmer, raiding allowed him to complete the transaction profitably. Whether the terms of trade led to commerce or to warfare ("one-sided economic exchanges") depended, then, not only upon the relative prices of grain and animals but also upon the relative costs of raiding (casualties, ill will). Now in recent times, since the power of central governments possessing aircraft has restricted raiding, pastoralists must trade animals or animal products for grain and other goods which the pastoral cycle does not provide. In the middle ages, however, the military potential of nomads was far superior to that of rural peasants and villagers, and so nomads could rely on predation and extortion to supplement or even wholly to supplant pastoralism and trade.

In order to recognize the bases of that nomadic military superiority we must further distinguish the nomad from the simple herder. The herder is a pastoralist whose life revolves around the welfare of his flocks. He needs pasture, water and occasional markets. In our own day, when population and governmental pressure have expanded cultivation and restricted range lands, pastoralists retain customary pastures on which they graze their herds. Centuries ago there were few constraints on tribal movements, and if one set of pastures was overgrazed or suffered poor rainfall, the herdsman could search for greener pastures elsewhere. His family's welfare depended, then, solely on the satisfaction of the needs of his herd of sheep and goats. To add predation to his repertoire, however, to become a nomad with the political and military threats and advantages implied in the term, he needed the horse. The horse gave him speed, range and mobility. He could choose the place and time for battle, ambush his prey, and escape to the steppe in short order. Infantry or stall-fed cavalry horses could find him only if they had a large commissary and the search did not take too long. To develop these advantages the nomad kept not one horse but strings of them, affording him fresh, quick mounts on demand. A string of horses was also an inexpensive addition to the nomad's equipment, for the horses could freely graze on the open

steppe.⁵ Thus, as long as there were enough horses and sufficient pasture, the nomadic life promised adventure and wealth to the pastoralist and threatened confiscation and domination to settlers.

The reader may now perceive why the fate of the Huns as a force was bound up with the fate of their horses. Extant scholarship on the Huns, however, assumes that the Huns always had horses and that they usually had enough horses to enforce their threats, no matter where they happened to be.⁶ There are two ways of testing these assumptions. First, and most crucial, is to ask how apparent and influential are horses in the sources which reveal the Huns to us; that is, are the sources in any way appreciative of the nomadic character of the Huns (in the manner, say, of the European chroniclers of the Mongol raids)? Secondly, what can we suggest about the actual capacity of the Huns' European homes to support large numbers of horses?

Performing the first test is a straightforward task of exegesis. What do the sources actually depict, where later scholars have seen Huns on horseback? Were horses present and if so what role did they play? Were they decisive? This approach may strike the reader as inadequate on two counts. First, we have relatively few literary sources for the history of the Huns, and among them we have no right to expect an author cognizant of our needs. The second objection follows from the realization that none of the sources even notes whether the Huns herded sheep.⁷ How, then, can we dare to build an edifice on the basis of laconic, scattered texts? There is a clear and sensible response to such objections. We can remedy neither the nature nor the number of the sources; we can only deal with what we have. Further, it must be borne in mind that we are seeking something out of the ordinary ken of late antique authors, something that would arrest their attention and excite their comment. Shepherds and their flocks were no novelty, but large numbers of mounted archers from the steppe were not everyday Balkan phenomena. The speed, skill and success of mounted nomads in warfare have excited comment from sedentary observers throughout history. Chronicle entries about the Mongols render it likely that, when enemy horses played a decisive role, those responsible for recording the events took note of it.⁸

We begin with the famous description of the Huns by Ammianus

⁵ J. E. Wiita, "The Ethnika in Byzantine Military Treatises" (Univ. of Minnesota Ph.D. thesis, 1977), p. 144.

⁶ I am in this sense critical of the work of E. A. Thompson and the late Otto Maenchen-Helfen, but I would like to acknowledge my great debt to these scholars for their exciting and stimulating books on the Huns. Thompson wrote before the flood of ethnographic literature on nomadic societies, and Maenchen-Helfen did not live to complete his work.

⁷ Maenchen-Helfen, *World of the Huns*, p.171.

⁸ D. Sinor, "Horse and Pasture in Inner Asian History", *Oriens extremus*, xix (1972), p. 182 n. 50.

Marcellinus. The steppe north of the Black Sea has always furnished decent pasture in abundance, and so it is no surprise to find Ammianus's Huns on horseback. They were mobile, quick and effective. Their pastoral activities, migration as opposed to campaigning, did not prevent their families from travelling in wagons, where their youngsters grew to puberty and their womenfolk fashioned clothing.⁹ As a vehicle of pastoralists, the wagon also appears in the histories of the Scythians and the Mongols: in 1253 William of Rubruck measured the width between the wheel tracks of such a cart.¹⁰ Carts or wagons, however, had no place in a military force whose advantage lay in mobility, speed and surprise. Indeed Philip of Macedon and Alexander the Great had forbidden their use to their troops.¹¹ The nomads solved this problem easily. While on campaign they left the wagons and other impedimenta behind and took to their horses alone, for maximum range and mobility. Wagons played no role in their strategy. Ammianus's Huns were mounted pastoral nomads, ready to rush off at a moment's notice, leaving the herds behind in the capable hands of the women and children: "they are lightly equipped for swiftness and surprise".¹²

When we next meet the Huns, they have crossed the Carpathians and become subject to a different climatic regime, a more broken terrain, a smaller plain, and a ground cover increasingly distinct from the steppe grasslands. We learn that in 384 Hun auxiliaries advanced as far as Gaul but, despite the assumptions of later commentators, the text itself does not mention horses, horsemen or the speed of the Huns.¹³ In 388 Theodosius I defeated Maximus on the Save and,

⁹ Ammianus Marcellinus, xxxi, 2 (ed. W. Seyfarth, 2 vols., Leipzig, 1978, ii, pp. 161-6). Ammianus's description served as a model for the general observations of Zosimus, iv. 20 (ed. F. Paschoud, 3 vols., Paris, 1971-9, ii pt. 2, pp. 280-2), and Jordanes, *Getica*, xxiv. 128 (ed. T. Mommsen, *Monumenta Germaniae Historica* [hereafter M.G.H.], *Auctores antiquissimi* [hereafter A.A.], 15 vols., Berlin, 1877-1915, v pt. 1). The relationship of Ammianus's text to Pompeius Trogus, discussed by Maenchen-Helfen, *World of the Huns*, pp. 13-14, does not affect the argument here, since we will be concerned with events west, not east, of the Carpathians.

¹⁰ C. Dawson (ed.), *The Mongol Mission* (London, 1955), p. 94; S. Jagchid and P. Hyer, *Mongolia's Culture and Society* (Boulder, 1979), pp. 59-61.

¹¹ D. W. Engels, *Alexander the Great and the Logistics of the Macedonian Army* (Berkeley, 1978), pp. 12-13, 15, 16 n. 18.

¹² Ammianus, xxxi. 2. 8 (ed. Seyfarth, ii, pp. 162-3). Maenchen-Helfen, *World of the Huns*, pp. 215-19, gathers the texts and archaeological evidence for wagons. He argues that the Huns needed wagons to remove booty, although the wagons were "light, probably two-wheeled wains" (p. 215). I believe that he underestimates the need for nomads to preserve their mobility at all times and that he overestimates the stability of a two-wheeled vehicle driven at any speed over ancient tracks. Wagons make it difficult to set up an ambush quickly, to lure an opposing force after you by a rapid, feigned retreat; they limit the choice of routes, and they delay your departure. As for booty, nomads do not need or desire large, weighty objects, but prefer easily portable sources of value such as coins or precious metals. In the men's absence, women and children often tend the herds: Barth, *Nomads of South Persia*, pp. 14-16.

¹³ Maenchen-Helfen, *World of the Huns*, pp. 40-4, discusses the events under the rubric "Hunnish Horsemen Ride to Gaul". The campaign is discussed in a letter of St. Ambrose, *Epistulae*, vi. 30. 8 (ed. O. Faller, *Corpus scriptorum ecclesiasticorum latinorum* [hereafter C.S.E.L.], lxxxii pt. 1, Vienna, 1968, p. 212).

although the text again says nothing about the Huns' horses, commentators have argued for their importance: Huns were present, Theodosius seems to have brought cavalry along, the Hun auxiliaries must have been mounted (because they were Huns), so the Huns' horsemen won the battle.¹⁴ If we stay close to the sources, however, the nature of the Huns' contribution to the victory remains unknown. It is suspicious that the sources are silent about horsemen as numerous, powerful and hitherto unknown, as modern historians would have them.

Referring to events of the early 390s, Claudian delivered his first invective against Rufinus in 396. It contained an account of Rufinus's Hun mercenaries which emphasized the Huns' skilled horsemanship. This passage, however, is no proof of the power of the Huns' horses in 392, not least because it is a précis of Ammianus's description.¹⁵ We must read the passage in context: its accuracy suffers from Claudian's transparent desire to magnify the odds against his hero Stilicho. More than that, it is a small setpiece, a gem separated from the events and actions Claudian narrates. Claudian's own tale does not contain accounts of the Huns' horsemanship; mention of the presence of Huns simply presents Claudian with the occasion for an excursus lifted from his reading. Nothing about the Huns' actions in 392 seems to have caught his attention or deserved description as worthy of note. What impressed Claudian was that Ammianus had some choice words on the subject. Had Claudian made the swift Huns a part of his narrative, the passage would be telling; as it is, the lines reveal Claudian's mind, not the Huns' horses.

Our next encounter with horsemen is in 395. Otto Maenchen-Helfen held that these were Goths, not Huns, but the text is instructive in either case. The *Life* of St. Hypatius informs us that the saint's followers easily fended off some horsemen who approached their Thracian sanctuary. There were few horsemen, for a blow from a single stone repulsed them. The Goths, having dismounted, then attacked on foot. They had not tried to utilize their horses to advantage to lure the monks into the open. The story would be peculiar evidence to advance for the powerful presence of nomad warriors.¹⁶

¹⁴ Thompson, *History of Attila and the Huns*, p. 32; Maenchen-Helfen, *World of the Huns*, p. 10, on Theodosius's cavalry; *Panegyrici latini*, xii (ii). 32. 4 (ed. E. Galletier, 3 vols., Paris, 1949-55, iii, pp. 98-9, and cf. p. 102 n. 1).

¹⁵ Claudian, *In Rufinum*, i. 323-31 (ed. Levy, pp. 72-3); O. Maenchen-Helfen, "The Date of Ammianus Marcellinus' Last Books", *Amer. J. Philology*, lxxix (1955), p. 394. My comments about Claudian also apply to Sidonius Apollinaris, *Carmen*, ii, 239-69 (ed. A. Loyen, 3 vols., Paris, 1960-70, i, pp. 13-14), modelled on Claudian and serving a similar purpose: O. Maenchen-Helfen, "Huns and Hsiung-nu", *Byzantion*, xvii (1944-5), p. 234.

¹⁶ Thompson, *History of Attila and the Huns*, pp. 36-7; Maenchen-Helfen, *World of the Huns*, p. 53; Callinicus, *Vita Hypatii*, vi. 2 (ed. G. J. M. Bartelink, Paris, 1971, pp. 92-3); *ibid.*, iii. 11 (pp. 82-4), also adduced by commentators, does not mention horsemen. I take the terms "Goth" and "Hun" here to denote political loyalty, not "ethnicity"; I hope to discuss the distinction elsewhere.

Although the Huns may not have raided the Balkans during 395, they did raid Mesopotamia and Syria from the north during that year. Two letters of St. Jerome refer to their horses and horsemanship. The first, composed in 396, is based on Ammianus Marcellinus and wrongly takes the small size and motley appearance of the steppe pony as proof of its inability to prevail over the stall-fed Roman charger.¹⁷ The second, from 399, comments upon the Huns' speed and mobility.¹⁸ Jerome was describing horsemen from the steppe, where pasture was plentiful. Since the pastures of northern Syria and Mesopotamia could support some 325,000 horse for the Mongol campaign of 1299-1300, and these pastures were not as rich as their normal pastures in Azerbaijan and the Mughan steppe further to the north, it is no surprise to find Hunnic horsemen in numbers to the east. But this does not imply a similar situation for the west.¹⁹

One hint of the Huns' military adaptation to European geographical conditions appears at the turn of the century. We find Bishop Theotimus of Tomis warding off a Hun's attempt to rope him in. The passage, from Sozomen, does not inform us if the Hun had a horse, but it does note that he was leaning on his shield, as was customary for Huns in conference or discussion.²⁰ Maenchen-Helfen attempted a calculation of the size of such a shield and concluded that it was "not suitable for war on horseback".²¹ On the other hand it would have been eminently suitable for an infantryman. Continuing our search we read that in April 406 Stilicho and Uldin's Huns defeated the Goths of Radagaisus at Faesulae. Although the victory is occasionally credited to the cavalry of the Huns, there is not a horse to be found in any of the sources for this encounter.²² In brief, the sources which describe the Huns' doings west of the Carpathians

¹⁷ Jerome, *Epistulae*, lx. 16-17 (ed. J. Labourt, 8 vols., Paris, 1949-63, iii, pp. 106-8), contrasting *caballus* to *equus*; Maenchen-Helfen, "Date of Ammianus Marcellinus' Last Books", pp. 391-2.

¹⁸ Jerome, *Epistulae*, lxxvii. 8 (ed. Labourt, iv, pp. 48-9); Maenchen-Helfen, "Date of Ammianus Marcellinus' Last Books", p. 393.

¹⁹ The sources list thirteen *tümen* assigned to the campaign, and a *tümen* consisted of a division of ten thousand horsemen. However, for this campaign the Mongols called up only five men in ten, so there were only 65,000 men present. For this campaign each soldier was to report with five horses: J. M. Smith Jr., "Mongol Manpower and Persian Population", *Jl. Econ. and Social Hist. of the Orient*, xviii (1975), pp. 276, 280. The Mongols estimated in advance the number of horses they could pasture; this string of five horses per Mongol was smaller than usual, owing to the lesser resources of water and pasture in southern Syria.

²⁰ Sozomen, vii. 26. 8 (ed. J. Bidez and G. C. Hansen, *Die griechischen christlichen Schriftsteller der ersten Jahrhunderte*, i, Berlin, 1960, p. 342); elsewhere, at vii. 26. 6-9 (pp. 341-2), Sozomen writes of Theotimus's horses, but not of the Huns!

²¹ Maenchen-Helfen, *World of the Huns*, p. 254.

²² Thompson, *History of Attila and the Huns*, p. 33, and cf. Maenchen-Helfen, *World of the Huns*, p. 60, who omits the horses; Zosimus, v. 26. 4 (ed. L. Mendelssohn, Leipzig, 1887, p. 249); Orosius, vii. 37. 16 (ed. K. Zangemeister, C.S.E.L., v, Vienna, 1882, p. 542); Marcellinus Comes, *ad annum* 406. 3 (ed. T. Mommsen, M.G.H., A.A., xi, p. 69); Chronicle of 452 (M.G.H., A.A., ix, p. 652, entry 52).

begin to offer a very different picture from that of the Huns to the east. The horses and horsemen whose speed and mobility surprised Ammianus and Jerome are absent, or at most, unimpressive in numbers and importance in the western authors' eyes.

One generation later, during the negotiations for the Peace of Margus, we find Bleda and Attila negotiating on horseback, while the Roman emissaries, "mindful of their dignity", followed suit.²³ It seems to me that this passage, unconsciously stretched, has become a proof text for the eternal nomadism of Hun society. Since Ammianus had the Huns living on horseback,²⁴ and since both Bleda and Attila insisted on remaining mounted during the talks, the Huns therefore still did everything else on horseback; they also had many horses, and so their society and army were still nomadic. To argue these conclusions from a simple attempt to humiliate the Romans is unwarranted. At most we might infer that the chiefs of the Huns rode horses and wanted the Romans to understand that they recognized the value of those horses. Much more than that cannot be advanced without a text describing many Huns riding to battle and using their horsemanship to confound their opponents; but there is something curious about those battles between Huns and Romans when they do occur. Given the historical experience of mounted nomad archers against armies recruited from a sedentary population, we should expect the Huns' European military career to have been striking and successful. Our expectations would soon be dashed. When, during the 440s, we do find the Huns battling Roman armies, the sources force us to conclude that the Huns were not superior: their victories were few and pyrrhic.²⁵

This last point has been obscured by a confusion between predatory raids, against which only minor local opposition appeared, and actual battles in which the Romans chose to oppose an army to the Huns. The former were often successful for the Huns, but sometimes even a raid brought unfortunate results. After the Huns' siege of Asemus failed, the men of the fort were able to ambush and drive off the Huns.²⁶ It is difficult to explain how the sedentary fortress-guardians of Asemus could surprise a mass of mounted nomads. Indeed, with-

²³ Priscus, frag. 1 (ed. C. Müller, *Fragmenta historicorum graecorum* [hereafter F.H.G.], 5 vols., Paris, 1841-70, iv, p. 72).

²⁴ Maenchen-Helfen, *World of the Huns*, p. 14, discusses Ammianus's embroidery of his source at this point in the narrative.

²⁵ In 441 the Huns were able to raid almost at will, but there was no Roman army present to oppose them: Maenchen-Helfen, *World of the Huns*, p. 117. In 447 the battle at the Utus cost Attila dearly: Thompson, *History of Attila and the Huns*, pp. 92-3. One reason why nomads hold mobility so dear is that it allows them to avoid costly, uncertain pitched battles such as this one. The Roman commander at the Utus was on horseback, but the sources do not mention the number, influence, or even presence, of Hunnic horse. Jordanes, *Romana*, cccxxxi (ed. T. Mommsen, M.G.H., A.A., v pt. 1); Marcellinus Comes, *ad annum* 447. 7 (M.G.H., A.A., xi, p. 82).

²⁶ Priscus, frag. 5 (F.H.G., iv, p. 75).

out adequate forage for their horses, would nomads be able to besiege a fortress in the first place? The nomads could build siege engines, or conscript men to construct them, without much difficulty. Feeding strings of horses, however, for any length of time in one place was, for nomads, next to impossible. The story of the siege of Asemus implies that the army of the Huns was no longer a mounted horde.

In 449 the chronicler Priscus accompanied a Roman embassy to Attila, and his comments suggest that the Huns viewed themselves no longer in nomadic terms. At no point in what remains of his account did Priscus comment on the strings of horses which distinguished medieval nomad armies from their settled adversaries.²⁷ Further, he noted that Attila lived in a town graced by well-constructed wooden dwellings and a stone bath-house built along Roman lines.²⁸ The town and its trappings were more than a fortified corral; the bath-house may have been simply a symbol of prestige, but the prestige now sought by the Huns was defined in settled, not pastoral, terms. This prestige arose from an admiration of sedentary glory, not the glory accruing to a chief who provided and protected rich pastures for his tribesmen.²⁹ The Huns were adopting a sedentary ideology. In return for the rare objects which the Romans presented to Attila, he had them given some horses, but on the return journey one of his lieutenants demanded the return of his gift. Priscus could find no reason for his behaviour, but we may ask whether he thought the gift too valuable; had he perhaps fewer horses than he could spare?³⁰

For those who persist in viewing Attila's Huns as mounted nomads, the Gaul campaign of 451 and the battle of the *locus Mauriacus* present difficulties, mainly because Attila's "nomads" received a sound thrashing from Aetius's "very motley host".³¹ Although many chronicles mention the battle, only Jordanes has left us a full account.³² Here are the telling points: both armies sought to gain the crest of a

²⁷ See the remarks of Sinor, "Horse and Pasture in Inner Asian History", pp. 172-3.

²⁸ Priscus, frag. 8 (F.H.G., iv, pp. 85, 89); Jordanes, *Getica*, xxxiv. 178-9. In a fashion typical for a nomad chief on the verge of settlement, Attila sited his town without due regard for the availability of building materials. In the thirteenth century the Mongol city of Karakorum suffered from the same deficiency in planning.

²⁹ I would argue further that Attila's Huns lived from predation and extortion rather than from pastoralism. Calculations based on Roman tribute alone yield an income sufficient to provision a large population. This helps us to understand why one of the loyal Huns whom Priscus met was an ex-Roman merchant. I hope to publish soon a longer study devoted to the tribal implications of Attila's extortion and its impact on the personnel of the tribe.

³⁰ Priscus, frags. 8, 14 (F.H.G., iv, pp. 94, 98).

³¹ Thompson, *History of Attila and the Huns*, p. 139.

³² Hydatius, *Chronique* (ed. A. Tranoy, 2 vols., Paris, 1974, i, pp. 146, 148); Casiodorus, ch. 1253 (M.G.H., A.A., xi, p. 157); *Consularia Italica, ad annum 451* (M.G.H., A.A., ix, pp. 301-2); Gregory of Tours, *Historia Francorum*, ii. 7 (ed. B. Krusch, M.G.H., *Scriptores rerum Merovingicarum*, 7 vols., Berlin and Hanover, 1884-1937, i); *Chronica Gallica* (M.G.H., A.A., ix, p. 663); Prosper, *ad annum 451* (M.G.H., A.A., ix, pp. 481-2); Jordanes, *Getica*, xxxviii. 197-xl. 213.

hill; much of the fighting was hand-to-hand combat, leaving heavy casualties still untended on the night following the battle; when Attila was forced to retreat, he sought refuge in his camp surrounded by wagons and, fearing that he could not escape, prepared to immolate himself on a heap of saddles. All these are reminiscent of infantry battles (or of infantry with minor cavalry assistance). Nomads preferred to fight in the open where their horses held the best advantage, where they could loose arrows at the enemy from a safe distance, and they sought the heights only before the contest, when the possibility of ambushing the adversary might be present. Once defeated, enclosing themselves in a confined area and hemming in their horses was a poor alternative to a rapid flight, which might string out the pursuing enemy and allow a wheeling flank assault.³³ Besides these tactical considerations, an ecological point presents itself: the battle took place in the heat of early July. Nomads did not commit their horses to a campaign after the best forage had already yellowed.³⁴ Finally, the funeral pyre of saddles which Attila laid for himself within the circle of the laager is proof not that he had many horsemen but that he led too few. What little we can extract from Jordanes about the battle leaves little doubt that Attila's force contained so few horsemen as to dictate a strategy based on an infantry encounter.

The defeat and loss of men in 451 brought Attila's leadership into question. A tribal chief's power, the assurance that his commands will be obeyed, rests upon his success in serving the interests of his tribesmen. Even before 451 Attila had worried about rivals within the tribe; his secretaries kept a list of those of them who had fled to the Romans. Many were kinsmen who might return to oppose him, and Attila never lost an opportunity to demand their return. In 452, after he had led the tribe to defeat in Gaul, Attila had to deliver a victory (and its accompanying booty) so that his continued leadership might be assured. The Italian campaign is best understood as the result of such tribal politics.³⁵ It is again interesting to note that Attila entered Italy in summer, when the pasture (such as was available) was even poorer than it had been in more northerly Gaul at the same

³³ The fortified camp or laager appears occasionally in the histories of Inner Asian tribes; for example, the Mongols called such a defensive arrangement a *kuriyen*. As a tactical device, however, the fortified camp was far inferior to mounted warfare's feigned retreat, for which nomads were much better prepared. For a Timurid fortified camp (which failed to achieve its purpose), see J. E. Woods, *The Aq Quyunlu* (Minneapolis and Chicago, 1976), p. 112.

³⁴ Sinor, "Horse and Pasture in Inner Asian History", p. 182.

³⁵ Barth, *Nomads of South Persia*, pp. 84-90, presents a succinct account of the formation and dissolution of political loyalties within a tribe. See also W. Irons, "Nomadism as a Political Adaptation: The Case of the Yomut Turkmen", *Amer. Ethnologist*, 1 (1974), pp. 635-58, and M. Fried, *The Notion of Tribe* (Menlo Park, Calif., 1975), pp. 99-105, which both develop in different ways the definition of a tribe as a political, as opposed to an "ethnic", phenomenon. On deserters, cf. Wiita, "The Ethnika in Byzantine Military Treatises", pp. 158-9.

time in 451.³⁶ A nomadic horseman would not make the same pastoral mistake twice, but a leader whose forces were mostly infantry would not be concerned with the condition of the grass. In the event, only one source for this expedition mentions horses. A sermon delivered after the siege of Milan implies that some Milanese were able to escape the city because the Huns' horses bore their booty-laden wagons too slowly to catch them.³⁷ If this however is the import of the text, it is a comment on the sedentarization of Hun strategy and taste in plunder, the lack of horses in sufficient numbers to preserve the nomads' mobile advantage, and in fact the transformation of their army into an infantry force aided by a lesser cavalry wing and transport corps.

The final text in our series is the veterinary treatise of Vegetius, composed in the mid-fifth century.³⁸ Vegetius pointed out that the horse of the Huns was bred for the steppe, a different breed from the stall-fed Roman horse. Those who saw fit to treat a Roman horse as if it were a steppe pony, for example by allowing it to graze year-round, only brought ill health to their horse and probable loss to themselves. Each horse had been bred to fit certain conditions; without satisfying those conditions it suffered.³⁹ Vegetius might have had similar advice for those Huns who brought their horses and herding practices into central or southern Europe and did not attend to their animals as the Romans did to theirs. But the occupation of an area with such a different geography would (and did) force a choice: either fewer horses or a large, trained corps of stable hands handling a huge grain commissary for campaigns, and we cannot see the latter in our sources (although it is the practice for raising horses in modern Hungary).⁴⁰

So far we have examined the written sources which seemed to bear on the Huns and their horses. There is archaeological evidence as well.⁴¹ Some of the excavated burials are almost certainly of Huns,

³⁶ Maenchen-Helfen, *World of the Huns*, pp. 134-5.

³⁷ The text and its interpretation are discussed by Maenchen-Helfen, *World of the Huns*, p. 139; for the context of the passage, see a homily attributed to Maximus of Turin (*Patrologiae cursus completus*, ed J.-P. Migne, Series latina, lvii, Paris, 1853, col. 471).

³⁸ Vegetius, *Digestorum artis mulomedicinae libere* (ed. E. Lommatzsch, Leipzig, 1903, pp. 95-6, 249-52); cf. Maenchen-Helfen, *World of the Huns*, p. 204. Vegetius comments on the character of the horses, but never on their numbers. It is useful to have his comment (p. 96) demonstrating that the Huns' horses lived by grazing alone. On Vegetius, now see W. Goffart, "The Date and Purpose of Vegetius' *De Re Militari*", *Traditio*, xxxiii (1977), pp. 65-100.

³⁹ This lesson also holds true for other pastoral animals; see A. Hjørvi and G. Dahl, *Having Herds* (Stockholm, 1976).

⁴⁰ L. Földes (ed.), *Viehzucht und Hirtenleben in Ostmitteleuropa* (Budapest, 1961), especially the remarks by I. Balogh on pp. 471-2, 486-7; E. Fél and T. Hofer, *Proper Peasants* (Chicago, 1969), p. 46.

⁴¹ Maenchen-Helfen, *World of the Huns*, provides an extensive review of this evidence as well as the earlier literature. As far as animal finds are concerned, all earlier work is now superseded by the extraordinary accomplishment of S. Bökönyi, *History of Domestic Mammals in Central and Eastern Europe* (Budapest, 1974).

and some of them contain clear evidence that the deceased kept horses. As for horses themselves, it "is interesting that not a single usable horse bone has been found in the territory of the whole empire of the Huns".⁴² Let us assume, however, that some will turn up in due course. The presence of horses among the Huns is not at issue; the crux of the problem is the presence of large numbers of horses, numbers suitable for sustaining a nomadic life and ensuring the mobility, speed and range of a nomadic horde. Those burials which have received investigation contain almost exclusively persons of high status or great wealth; their grave goods may reflect the aspirations of many Huns, but they do not, and certainly not in their present numbers, mirror the life of most Huns. Looking at a parallel from Anglo-Saxon archaeology, we can affirm that not all of Raedwald's subjects, nor even many, lived as he did or were accompanied to eternity by grave goods such as those found at Sutton Hoo. The archaeological evidence may some day confirm the existence of mounted Huns at the highest levels of society, but it would not prove that mounted Huns were present in significant numbers west of the Carpathians. We shall see that similar considerations affect the interpretation of Avar and Hungarian horse burials.

If the preceding discussion has been convincing, the European Huns' reliance on horses, and therefore the nomadic nature of their society and army, are doubtful notions. This should come as no surprise for we know that no other nomadic group was able to retain its nomadic adaptation once it entered central Europe; and given their predatory success at raiding undefended villages, these tribes may no longer have felt the need or desire to herd lots of horses. Clearly the Huns possessed no nomadic wisdom denied to the Hungarians or the Mongols. It does little good, then, to speak of nomadism as an eternal constant in Hunnic society. The Huns of European history span a century in time and a continent in space. Different landscapes must have affected the character of Hun warfare and society, even if we exclude from consideration the impact of Roman volunteers who joined the Huns or the flight to Rome of Attila's rivals. The received tradition's reliance upon an eternal nomadism with continuously replenished herds probably rests upon the laudable desire to add to the meagre literary sources some comparative material, and this material usually comes from Inner Asia. Descriptions of the society and economy of the Mongols have served to build a fuller, more attractive model of Hun society. In principle there is nothing wrong with such comparisons, except as used here where they compare apples with oranges. What we know of the medieval Inner Asian Mongols may help us to understand the earlier Hsiung-nu on the Chinese frontier,

⁴² Bökönyi, *History of Domestic Mammals*, p. 267. See also S. Bökönyi, *The Przewalsky Horse* (London, 1974), p. 88.

but not the Huns in Europe. The Hsiung-nu lived where the Mongols lived, while the Huns of Attila did not. Hungary is not Mongolia. To expect the Huns to have retained the domestic economy of the steppe once they had reached the Danube is to reject the role of ecology in history.

We may, then, summarize the results of our first test by suggesting that the contemporary sources do not justify the received view of the Huns in Europe; that is, if the Huns remained a power, they were no longer a nomadic power. Let us now move to the second of our tests and ask whether it is possible to be more precise about the geographical limitations. It is in the nature of "thought experiments" such as the one which follows that they cannot be conclusive; in fact little more than a notion, or an order of magnitude, may safely be drawn from the calculations we shall make. Nonetheless we shall gain a clearer view of the extent to which the lands west of the Carpathians foreclosed the possibility of a nomadic power, had it so wished, perpetuating itself.⁴³ Let us first consider the largest area of contiguous potential pasture in Europe, the Alföld, or Great Hungarian Plain. It contains at most some 42,400 square kilometres of pasture.⁴⁴ It is instructive to note in passing that this potential grazing area amounts to less than 4 per cent of the available pasture in the modern Mongolian People's Republic. A collation of range management manuals with studies of traditional Hungarian animal husbandry suggests that in the Alföld a horse, living by grazing alone, requires twenty-five acres of pasture per year.⁴⁵ The Great Hungarian Plain could, then,

⁴³ The ideas behind these calculations grew out of a reading of Sinor's "Horse and Pasture in Inner Asian History" and some of his own unpublished essays which Professor John Masson Smith Jr. has kindly shown me over the years. I use a slightly different method from that of Sinor, and I do not accept some of his statistics: his estimate of the area of the Great Hungarian Plain is much too high, and his estimation of the area of pasture required to support a horse, based on American statistics for the arid Continental Divide, is also too great. Our approach to the calculations is, however, compatible, and I would like to acknowledge my indebtedness to his article.

⁴⁴ See the official Hungarian statistics in *Encyclopaedia Britannica*, 15th edn. (Chicago, 1979), under "Hungary". The standard authority on this region, A. N. J. Den Hollander, *Nederzettingsoormen en -problemen in de Groote hongaarische Laagvlakte* (Amsterdam, 1947), p. 5, calculates the area to be 41,901 square kilometres. My larger figure includes presently built-up urban areas excluded by Den Hollander. Nomadic military necessity forces us to consider only contiguous pasture; dividing the forces and scattering them among small, distant pastures may feed horses but soon defeats the purpose of a large, mounted force, since time and opportunities are lost bringing the horsemen back together for combat.

⁴⁵ Early nineteenth-century statistics for the year-round grazing needs of sheep and cattle appear in H. Ditz, *Die ungarische Landwirtschaft: volkswirtschaftlicher Bericht* (Leipzig, 1867), p. 262. Den Hollander, *Nederzettingsoormen en -problemen*, p. 43 n. 45, discusses the conversion of these figures into the animal units used in traditional husbandry, and then into numbers of horses or pigs: cf. the similar method of K. Treiber, *Wirtschaftsgeographie des ungarischen Grossen Alfölds* (Schriften des Geographischen Instituts der Universität Kiel, ii pt. 2, Kiel, 1934), p. 42. For the sake of comparison, a computation for the grasslands of western Kansas, whose rainfall and certain soil characteristics match conditions on the Great Hungarian Plain, yields the

(cont. on p. 15)

support some 320,000 horses.⁴⁶

This result, even if it represents only the middle of a range of possibilities, is clearly extravagant. First, our computations assumed that the land was reserved for horses alone, and we must allow for other users of the land: cattle, sheep, pigs, and some human cultivators. Secondly, some of this land was forested, and much of it dotted with marshes.⁴⁷ Finally, the grazing practices of the horses themselves contributed to the depletion of pasture and therefore to the shrinking of any range's carrying capacity.⁴⁸ I would suggest that the actual carrying capacity of the Great Hungarian Plain was more in the neighbourhood of 150,000 horses.

We have already noted that the nomad obtains his mobility from his horse. He retains it by possessing a string of horses, a remount reserve to extend his range and preserve his speed. Marco Polo observed strings containing as many as eighteen horses per man on the steppe, but let us assume an average of ten horses per Hun.⁴⁹ We could then conclude that the Hungarian plains might support some 15,000 nomad warriors. This result is hypothetical, and its probability is a function of the actual extent of marsh and forest in the fifth century as well as the amount of competition for use of the land from other animals or cultivators. Full data about these constraints are unavailable, and so I have attempted a conservative calculation. Now the power of nomadic forces rested not only on their horsemen's skill but also on the number of those horsemen. Our Huns, it seems, could not even have mustered two Mongol divisions, or 20,000 horsemen,

(n. 45 cont.)

same results: United States Forest Service, *The Western Range* (Washington, D.C., 1936), pp. 87, 137, 439, 509. There was considerable debate later over the accuracy of the grazing statistics in this report, but the order of magnitude of the statistics seems settled.

⁴⁶ The reader should bear in mind that these horses are smaller, totally range-fed horses, not the larger horse which stall- and lot-feeding has developed in modern Hungary. The range-fed horses were physically similar to the nomads' horses, and therefore considerations of size and diet do not affect the calculations.

⁴⁷ For one estimate of the extent of marsh, moor and forest in medieval Hungary, see A. Kollautz and H. Miyakawa, *Geschichte und Kultur eines völkerwanderungszeitlichen Nomadenvolkes: Die Jou-Jan der Mongolei und die Awaren in Mitteleuropa*, 2 vols. (Klagenfurt, 1970), i, p. 172 map 7. See also Sinor, "Horse and Pasture in Inner Asian History", pp. 181-2; Ditz, *Ungarische Landwirtschaft*, pp. 261-2, with suggestive remarks on the long-term depletion of nutritive grasses; Fél and Hofer, *Proper Peasants*, pp. 23, 42, on flooding and modern land reclamation.

⁴⁸ W. C. Barnes, *Western Grazing Grounds and Forest Ranges* (Chicago, 1913), p. 77. Barnes was inspector of grazing for the United States Forest Service.

⁴⁹ Sinor, "Horse and Pasture in Inner Asian History", p. 173; Smith, "Mongol Manpower and Persian Population", p. 297; William of Rubruck, in Dawson (ed.), *Mongol Mission*, pp. 132-3, makes it clear that even at a peacetime pace three changes of horse a day wore out the animals and were therefore inadequate. The American pony express allowed a minimum of seven mounts to a rider, and in practice riders often changed mounts ten or more times in a day: R. W. and M. L. Settle, *The Story of the Pony Express* (London, 1974), pp. 37-9.

against the Romans' larger resources.⁵⁰ Crossing the Carpathians, then, devastated the logistic base of nomad political and military strength.

In fact even if our calculations were totally invalid, these conclusions could actually be strengthened. Any atlas which shows the natural vegetative cover of Europe will reveal that the Great Hungarian Plain is the largest pasture on the continent. Beyond that, it will also reveal how great is the gap between the carrying capacity of that plain and the smaller, scattered and restricted pastures to the west, south-west or south.⁵¹ Nomads could scatter, but not gather, anywhere else. Mounted nomads who wished to campaign in (say) Italy would be forced either to scale down the number of their horsemen (and risk being outnumbered), or to bring along fewer horses as remounts (thus restricting mobility and range), or to chance everything on a very short campaign (and spread out their forces to graze distant pastures, thereby losing the numerical advantage). In brief, whatever difficulty the Huns had keeping enough horses and other animals in Hungary pales before the fate awaiting them beyond the Alföld.

How did the Huns respond to the new conditions west of the Carpathians? They began to resemble their neighbours. Proceeds from tribute and raiding seemed more lucrative than the animal profits from husbanding herds. The good life came to be pictured in sedentary, Roman terms, as the bath-house implies. The army grew more and more dependent upon its infantry as its mounted resources decreased.

We might well consider extending this analysis to explain the settlement of the Avars and Hungarians, and the failure of the Mongols to return to the heart of Europe in the 1240s. Although this is not the place for a full discussion of these parallel themes, a few words about the importance of horses among the Avars and Hungarians may help to frame the discussion of the Huns in a wider perspective.

For the Avar and early Hungarian eras there are numerous excavated burials of horses and riders. The conclusions drawn from these deserve a closer examination than they have received. Our earlier discussion concluded that a nomadic military force owes its effectiveness to the number of its riders and the larger number of their remounts. A force that cannot meet these requirements can hope to achieve no more successful a career than one of raiding undefended hamlets. In order, therefore, to draw from the Avar or Hungarian

⁵⁰ On the crucial importance of numbers in the success of nomadic strategy, see Smith, "Mongol Manpower and Persian Population". For the sizes of contemporary armies recruited from sedentary manpower, see A. H. M. Jones, *The Later Roman Empire*, 3 vols. (Oxford, 1964), i, pp. 196-8.

⁵¹ In the first instance, see the *Oxford Economic Atlas of the World*, 4th edn. (Oxford, 1972), map 6, and then the studies of individual areas, in Committee for the World Atlas of Agriculture (eds.), *World Atlas of Agriculture*, i (Novara, 1969).

burials the conclusions that the two tribes were nomadic or that their military power rested on a nomadic base, at least two conditions are to be met: there must be copious riders' burials (and the numbers of these burials must be compared with other burials), and there must be evidence of many horses. The archaeological literature has neither recognized nor satisfied these constraints.⁵² The burials are not proof of Avar or Hungarian mounted strength. Evidence of cavalry or cowboys is not evidence of a mounted nomadic horde.

The literary sources also do not show nomadic armies at the root of Avar or Hungarian success. Just as the Huns were better at raids than in battle, so were the Avar and Hungarian military experiences echoes of Attila's. The sources' descriptions of Avar campaigns during the later sixth century show that horsemen played no significant role and display no traces of the tactics of mounted archery. The great Avar battles were infantry battles.⁵³ For example, Avar horsemen are supposed to have taken part in the siege of Constantinople in 626, but the source speaks of infantry alone.⁵⁴ While there may be plenty of evidence of the nomadic pastoralism and skilled, mounted archery of the Avars' antecedents in Inner Asia, it is an error for their historians to compress the Inner Asian steppe into the Alföld.

Scholars of early Hungarian history have followed students of the Avars and Huns in the belief that a description of the tribe north of the Black Sea may also serve to picture it west of the Carpathians. They differ, however, in terming the society of conquest-era Hungary a "semi-nomadic" society, marked by fishing, pastoralism, cultivation and migration along the banks of rivers.⁵⁵ The term "semi-nomad" seems chosen in the hope of preserving the martial vigour of

⁵² For representative descriptions of horse burials, see Kollautz and Miyakawa, *Geschichte und Kultur eines völkerwanderungszeitlichen Nomadenvolkes*, ii, *passim*; A. Točík, *Altmagyarische Gräberfelder in der Südwestslowakei* (Bratislava, 1968). The interpretation of horse and rider burials is more complex than it might seem. Is it, for example, correct to assume that a nomad possessing a string of horses would be content to be accompanied to eternity by just one horse?

⁵³ The Avar army on foot in 580: Menander Protector, frag. 63 (F.H.G., iv, p. 264); campaign of 593: Theophylact Simocatta, vi. 4-5 (ed. C. de Boor, Leipzig, 1887, pp. 228-9); in 596: *ibid.*, vii. 12 (pp. 265-6); and in 599: *ibid.*, viii. 2-3 (pp. 286-7). Because he also mentions buffaloes, the account of wild horses in Paul the Deacon, *Historia Langabardorum*, iv. 10 (ed. G. Waitz, M.G.H., *Scriptores rerum Germanicarum in usum scholarum*, Hanover, 1878, p. 150), is doubtful evidence for a nomadic horde. Against the rumour transmitted and acknowledged as such by Menander, in frag. 48 (F.H.G., iv, p. 252), of 600,000 horsemen in 578, must be placed the account of that campaign which has the Avars operating from aboard ships: Kollautz and Miyakawa, *Geschichte und Kultur eines völkerwanderungszeitlichen Nomadenvolkes*, i, p. 240 n. 3.

⁵⁴ Kollautz and Miyakawa, *Geschichte und Kultur eines völkerwanderungszeitlichen Nomadenvolkes*, i, p. 230; *Chronicon Paschale*, ed. L. Dindorf, 2 vols. (*Corpus scriptorum historiae Byzantinae*, Bonn, 1832), i, p. 719.

⁵⁵ G. Györffy, "Système des résidences d'hiver et d'été chez les nomades et les chefs hongrois du X^e siècle", *Archivum Eurasiae medii aevi*, i (1975), pp. 47-54; G. Györffy, "Autour de l'état des semi-nomades: le cas de la Hongrie", in *Commission nationale des historiens hongrois, Études historiques hongroises*, 1975, 2 vols. (Budapest, 1975), i, pp. 225-7.

steppe nomadism when combined with agriculture and cattle or pig husbandry. It would be better to accept the archaeological and charter evidence for what it is: an indicator of settlement and adoption of a mixed agriculture defined by intensive cultivation, stock-breeding and occasional pastoralism.⁵⁶ Such a milieu does not admit the nomad's horses to graze freely: the smaller animals crop the grasses more closely than horses can, and no enterprising nomad would accept such a state of affairs and turn to the time-consuming task of raising fodder for his horses. The concept of "semi-nomadism", far from answering questions, serves merely to mask them. "Semi-nomadism" is at best a variety of settled life, not of nomadism.

For evidence of the early Hungarians as a mounted horde in Europe we turn to the history of their raids in the tenth century.⁵⁷ A full discussion must take place elsewhere; in brief, however, it is again necessary to distinguish a raid, in which a small group of men meet only hastily formed, local opposition, from a battle between two armies. Turning to raids, it is hard to see them as examples of nomadic strength or strategy. The sack of Basle in January 917 could not have involved many horses for there was no grazing available.⁵⁸ Nor can the early Hungarians have prized their mobility, when they adopted the practice of taking captives on foot and marching them east.⁵⁹ They had put the cart before the horse. In battle the Hungarians resembled their opponents more than they do the Mongols. At the battle of Riade in 933 the Hungarians fled before Henry I's small force of heavily armed cavalry, and this was no nomadic feigned retreat, to be followed by a wheeling turn back on to the enemy's flanks: even if we deflate Liudprand of Cremona's lurid passages, we must conclude that the battle displayed the transformation of the Hungarian tribesmen into a sedentary army.⁶⁰ Finally, we have the battle at the Lech, in which Otto I's army with its heavy cavalry was

⁵⁶ I. Dienes, *The Hungarians Cross the Carpathians* (Budapest, 1972), p. 34, summarizes the archaeological investigations.

⁵⁷ R. Lüttich, *Ungarnzüge in Europa im 10. Jahrhundert* (Berlin, 1910); G. Fasoli, *Le incursioni ungariche in Europa nel secolo X* (Florence, 1945); S. de Vajay, *Der Eintritt des ungarischen Stammesbundes in die europäische Geschichte* (Mainz, 1968). The relief on the Nagyszentmiklós goblet, pictured in *ibid.*, p. 153, and elsewhere, depicts a rider without stirrups or bow, surely not a nomad!

⁵⁸ Lüttich, *Ungarnzüge in Europa*, p. 66; Fasoli, *Incursioni ungariche in Europa*, p. 131; De Vajay, *Eintritt des ungarischen Stammesbundes*, p. 57.

⁵⁹ K. Leyser, "Henry I and the Beginnings of the Saxon Empire", *Eng. Hist. Rev.*, lxxxiii (1968), pp. 4, 8. Many of the military victories over Hungarian raiders occurred while the raiders were returning east, booty-laden. The fact that the Hungarians could not escape severe losses on these occasions argues against their strength in horses and against their having retained a nomadic strategy any longer.

⁶⁰ *Ibid.*, p. 23. On the small size of German cavalry forces, see K. Leyser, "The Battle at the Lech, 955: A Study in Tenth-Century Warfare", *History*, I (1965), pp. 16-17; Widukind of Corvey, i. 38 (ed. H.-E. Lohmann and P. Hirsch, M.G.H., *Scriptores rerum Germanicarum*, 2nd ser., 13 vols., 1922-62, v, pp. 56-7); Liudprand of Cremona, *Antapodosis*, ii. 31 (ed. J. Becker, M.G.H., *Scriptores rerum Germanicarum in usum scholarum*, Hanover, 1915, pp. 51-2).

able to catch up with the Hungarians, who had stopped to rest their weary horses.⁶¹ Lacking remounts, the Hungarians were decimated. It is only a short step from tired horses to the final evidence of settled military strategy: the Hungarians began to build fortifications against Ottonian raids.⁶² All these themes should have separate, detailed development, but the central point remains: the constraints of pasture remained the same for the Hungarians. The Carpathians mark the far western frontier of the history of nomadism.

When the Huns first appeared on the steppe north of the Black Sea, they were nomads and most of them may have been mounted warriors. In Europe, however, they could graze only a fraction of their former horse-power, and their chiefs soon fielded armies which resembled the sedentary forces of Rome. Those chroniclers who wished to embellish their accounts copied a description which fitted another setting, really another world. That this exaggerated the enemy's power only fitted their rhetorical ambitions; unfortunately it has also deceived modern readers. A conscientious student of Hunnic archaeology has concluded that the "Huns could not give up the system of nomadic stock-breeding, among others, for the simple reason . . . [that] this would have struck at the root of their military power".⁶³ Exactly so: nature forced them to give it up, the loss undermined their military strength, and in due course military failure doomed their tribe.

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⁶¹ Leyser, "Battle at the Lech", p. 24; Widukind, iii. 46 (ed. Lohmann and Hirsch, p. 128). Leyser estimates that no more than four thousand men fought for Otto at the Lech: "Battle at the Lech", p. 17.

⁶² H. Göckenjan, *Hilfsvölker und Grenzwächter im mittelalterlicher Ungarn* (Quellen und Studien zur Geschichte des östlichen Europa, v, Wiesbaden, 1972), pp. 5, 7.

⁶³ J. Harmatta, "The Dissolution of the Hun Empire: Hun Society in the Age of Attila", *Acta archaeologica Academiae Scientiarum Hungaricae*, ii (1952), p. 284.