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HORSES AND HORSEMANSHIP IN THE *RIGVEDA*

by

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ABBREVIATIONS

ABORI	Annals of the Bhandarkar Oriental Research Institute
AfB	Archiv für Bienenkunde
AFHB	Archiv für Hygiene und Bakteriologie
AfO	Archiv für Orientforschung
AFR	Archiv für Religionswissenschaft
AIOC	All India Oriental Congress: Summary of Papers
AJA	American Journal of Archaeology
AJP	American Journal of Philology
AJS	American Journal of Surgery
AMH	Annals of Medical History
ANF	Arkiv for Nordisk Filologie
AO	Acta Orientalia
AO	Archiv Orientalni
AR	Leopold von Schröder's <u>Arische Religion</u>
BJ	Bonner Jahrbücher
BSR	Papers of the British School at Rome
CJ	Classical Journal
DWG	Die Welt als Geschichte
GR	Greece and Rome
GRM	Germanisch-Romanische Monatschrift
IHQ	Indian Historical Quarterly
IJJ	Indo-Iranian Journal
IMS	Industrial Medicine and Surgery
JAOS	Journal of the American Oriental Society
JESHO	Journal of the Economic and Social History of the Orient
JHS	Journal of Hellenic Studies
JISOA	Journal of the Indian Society of Oriental Arts
JKDAI	Jahrbuch des Kaiserlich Deutschen Archäologischen Instituts
JLHSHL	Jahrbücher für die Landeskunde der Herzogthümer Schlesweg, Holstein und Lauenburg

JOI	Journal of the Oriental Institute Baroda
JRAS	Journal of the Royal Asiatic Society of Great Britain and Ireland
JRASB	Journal of the Royal Asiatic Society of Bombay
JUB	Journal of the University of Bombay
JWH	Journal of World History
KEW	M.Mayrhofer's Kurzgefasstes Etymologisches Wörterbuch des Altindischen
KZ	Kuhn's Zeitschrift
LQ	Linzer Quartalschrift
MAGW	Mitteilungen der Anthropologischen Gesellschaft in Wien
MASI	Memoirs of the Archaeological Survey of India
MDVG	Mitteilungen der Vorderasiatischen Gesellschaft
MHJ	Middlesex Hospital Journal
MSGFV	Mitteilungen der Schlesischen Gesellschaft für Volkskunde
MUVM	Monatsschrift für Unfallheilkunde und Versicherungsmedizin
NM	Natur und Museum
OAA	Orthopaedic Appliance Atlas
OHRJ	Orissa Historical Research Journal
PAOS	Proceedings of the American Oriental Society
PBA	Proceedings of the British Academy
PRIA	Proceedings of the Royal Irish Academy
PZSL	Proceedings of the Zoological Society of London
RDSO	Revista degli studi Orientali
RL	Reallexikon der Germanischen Altertumskunde
SPHC	Sitzung der philosophisch-historischen Classe
SW	Sanskrit-Wörterbuch of O.Böhtlingk and R.Roth
WBKL	Wiener Beiträge zur Kulturgeschichte und Linguistik
WzRV	Wörterbuch zum Rgveda of H.Grassmann
ZB	Zoologiska Bidrag
ZDMG	Zeitschrift der Deutschen Morgenländischen Gesellschaft

ZDWS	Zeitschrift für Deutsche Wortforschung Sprache
ZfDP	Zeitschrift für Deutsche Philologie
ZfE	Zeitschrift für Ethnologie
ZFKP	Zeitschrift für Klassische Philologie
ZfV	Zeitschrift für Volkskunde
ZfVS	Zeitschrift für Vergleichende Sprachforschung
ZTZ	Zeitschrift für Tierzüchtig und Zuchtbiologie

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It is a very pleasant duty to acknowledge before the text of this thesis those individuals who have assisted me in its production. This varies from the occasional inspired suggestion and unintended help to extensive criticism and discussion. I thank you all very much.

My first thanks must go to my first supervisor, Professor A.L. Basham. The topic which he originally suggested was the horse sacrifice. I started on this, but my interests soon expanded and I began to deal with the Indo-European knowledge of the horse. The R̥gveda is the principal source material that I use, and this is supplemented with literature from other branches of that extensive family.

From the outset Professor Basham has always been willing to help me with any problem. His advice and guidance on all matters I have presented to him have been most helpful. He encouraged me to come here in the first place, and was instrumental in securing for me an Australian National University Master's scholarship. If this thesis can in any way express the gratitude which I owe to Professor Basham for the labours which he has undertaken for me, then I shall be satisfied.

After Professor Basham left for a position overseas, Dr. Jordens took over responsibility as my chief supervisor. To him I am greatly indebted for all the things he has done for me. I always knew that I could go and see him about any problem and he would do his best to help me.

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All the material that I have needed from libraries either in Australia or overseas I have secured through the generous assistance of these people. They were pleased to help me at all times, and I was always pleased to deal with them.

If it was not for a scholarship provided by the Australian National University I would not have been able to come to Canberra. To the University, therefore, I am greatly indebted and thank all concerned. I believe I have gained much from my stay here, and I will always remember Canberra with deep affection.

I would now like to say a few words about this thesis. I have searched for many an hour for material relevant to my subject. The search has not been easy. The material is there but it is widely scattered. All that material I have included in the bibliography. I hope that it forms a useful supplement to the main text. I also hope that the reader finds as many gems in the literature as I have found when I read through it all.

In addition, I have included a few sketches as an aide in understanding the structure of the chariot and the harness. When reading the chapter on chariotry it may serve as a useful addition.

Should anyone accuse me of being an alien to the subject, may I say that I have ridden and handled horses before. I have never been a professional, but I am acquainted well enough with the horse to be able to speak with some authority.

Because of my interest in horses, I have found this topic of considerable interest. A dedication to the horse, therefore, may seem ridiculous, and it may well be. To the lasting friendship, however, that has endured the ravages of time, between man and horse,

a dedication of thanks may not be that much out of place.

To all those people who have stood by me during these two years, 1979-1980, and have awaited this history, I say thank you. Many names besides those I have already mentioned could be named, but I believe that if they receive as much pleasure in observing or studying the history of man and horse as I have, then I could expect no better reward. And I hope that the reader obtains as much enjoyment from the subject as I have, and I hope will continue to for many more years yet.

INTRODUCTION

Few animals have had such a profound effect on the course of history as the horse. It still finds a use today despite mankind's unsurpassed involvement with and reliance upon machines. The horse may continue to be even more popular simply because of this. Thus what may seem a setback to the horse's continued involvement with mankind could well turn to the horse's favour. Fortunately, there still remains among nearly all peoples a certain fascination for this creature.

Books about horses are readily available today. They cover nearly every imaginable point on the subject from breeds to management and from the horse mind to dressage. What most have in common is that they concern horses and horse management of today: the present. Few consider the horses of yesterday: extending back to humanity's first association with the horse.

There is a wealth of information about horses in mankind's early history. Perhaps the only hindrance is a lack of interest or inability to find it, search through it, and then present the information.

It is perhaps true to say that each age steps on the shoulders of the ages that have gone before. Thus the value of what we have today in large measure reflects our debt to our forerunners. Certainly each age has a different weight to bear, but if we can in any way show our appreciation of the labours of the peoples of antiquity who have bequeathed much to us, it is in the least to record what they did. How they used the horse and the developments revolving around it, including the revolution in land transport and its numerous results, is only a small but singly important development in mankind's attempts to improve both himself and those around him.

Our ancestors had a unique relationship with that noble animal the horse for a long time. Traces of it remain and can be reconstructed.

We can learn about the lives of the people- how they travelled, what religion they had, their economy- by studying their closest companion, the horse. Early peoples' lives were tied with that of the horse because they were dependent on it.

Few people have attempted research on mankind's early association with the horse. Those that do exist are for the most part about horses in the classical civilizations and were written during the nineteenth or early twentieth centuries. What is more, most are written in German. It is a regret that the Indo-Europeans' dealings with horses have scarcely received the attention that they deserve. The text that contains the myths and customs of the Āryans-a branch of the Indo-Europeans- is a vast treasure that abounds with information on horses. Why this information has not been fully utilized before is a mystery.

This thesis hopes to reestablish the Ṛgveda as an important and vital piece of source material for the early history of the Āryans' use of the horse. Without it, our knowledge and appreciation of the Indo-European indebtedness to and relationship with the horse is diminished. With it, however, our appreciation will increase and a large gap in the history of man's dealings with horses will be filled in.

From the pages of the Ṛgveda much can be learnt about the horses of the Āryans. Important to consider is why the horse features so prominently. This question has never really been answered before. The reason is simply because it is regarded as an important animal, if not the most important. It played a role so great that few texts can parallel the lavish praises bestowed on the animal. The Āryans became so dependent on it for their survival that it should be little wonder that it becomes a god.

Once we understand how important the horse is, this deification can be easily understood. The deification of the horse is always important to

bear in mind, for it^{is} the key in understanding much about early horse-lore. In addition, the horse possesses certain qualities that magnify its grandeur. It is a teachable animal and obedient to the master whom it knows well. Many heroes both ancient and modern have had their favourite horse that accompanies them through the thick and thin of battle, or takes their rider to another victory in the race.

As the Āryans became acquainted with horses so too did their knowledge increase. Of this knowledge they have left us much. The horses that draw the chariot or which are ridden would need to have been trained. Kikkuli's horse-training manual -a Hittite document- contains elaborate day-by-day instructions that could have served as a model for the Āryans' horse-trainers in north-western India.

Few areas in horse-lore are lacking in the R̥gveda. For the researcher it is merely a case of what he chooses to include. This thesis is really only a beginning, since much more could be said on the subject. The chapters here have been chosen because they will fill in many gaps on the Āryan and Indo-European contribution to early horse-lore. While the subjects differ sometimes to a great extent, they share in common the single theme of this thesis-, that is, to show the exalted position of the horse that contributed much to the life of a vital people. If any people have come close to acknowledging the horse as the most noble of beasts it is surely the Āryans. To them no other animal could be compared or equalled in nobleness. If only our appreciation of the service and dedication of the horse to humanity can be furthered, then the effort of enquiry will be worthwhile.

Chapter I

THE SONS OF HEAVEN

Of all the domestic animals, the horse has had the closest relationship with mankind. Only in the most recent times has it been surpassed by the dog. This came about because it fulfilled the role of comrade-at-arms, a role unique to the horse. Unlike other animals that man dealt with in groups, the horse was treated individually. Every horse had its own rider or driver, and each came to know the other.

The results of this relationship were enormous. Horse and Man could achieve much together, and they did. The early literature of the Indo-Europeans shows how much these peoples relied on the horse for their wars and for their entertainment. Though there is much obscurity because of the mixture of mythology and history, a lot may be learnt from both. An interesting point in the history of man and horse is that some individuals were selected as being preëminent in dealing with horses.

Not limited by geographical separation but only by the imagination of men's minds, the fame of these beings travelled as if on the wings of the wind. For the most part they appear in early literature as gods, and although their horse association is there, it seems to have a subordinate role. The curious thing about them is that they are twins or brothers or possibly both.

The Asvins have been an enigma for a very long time. Their identity has remained elusive both to the earliest interpreters and to modern scholars. We find that their nature is diverse and their interests are equally so. It is because of this diversity that they appear a fascinating pair of gods. Moreover, the hymns that celebrate them reveal a special degree of kinship between the worshipper and the Asvins. This explains, in part at least, their functions and interests.

What does the word Asvin mean? One dictionary states that the word means "furnished with horses, consisting of horses, horse tamers, horse guiders".¹

1. H.Grassmann, WzRV, Wiesbaden, 1872, col.143 under Asvin-

The word is derived from asva- "horse", and the suffix in- means "having" or "possessing". Asvin- therefore means "possessing horses".² The close relationship that existed between the Asvins and the horse is thus evident from the name of the pair.

Undoubtedly one of the most durable qualities of the horse is its swiftness. Because of this characteristic, the horse was a suitable animal for the battle. A fleet steed or mare, then, is one of the Āryans' most prized possessions.³ The Asvins' horses are called flying steeds in several passages,⁴ meaning of course rapid runners. Other passages liken these horses to swans: graceful in movement, swift, and beautiful in appearance.⁵

Both the chariot and the horses of the Asvins receive special attention in the Asvin hymns of the Rgveda. While most of the gods travel in a chariot drawn by swift horses or a similar swift creature, none receives as much attention as that of the Asvins. The horses are called bird-like, fleet-winged, golden-winged, falcon-like, swan-like, and as swift as thought.⁶ Lightning-like speed was a necessity in the poet's view for the brothers to undertake the tasks that were given to them.

2. See A.A.Macdonell, A Vedic Grammar, Oxford, 1916, p.474., and for further references consult the following: Julius von Negelein, Das Pferd... Königsberg, 1903, p.2., Leopold von Schröder, AR, Leipzig, pp.441-442, vol. 2., D.Ward in Indo-European and Indo-Europeans, eds. G.Cardona et.al., Philadelphia, 1970, p.406., M.O.Howey, The Horse in Magic and Myth, London, 1923, p.151., D.Ward, The Divine Twins, Berkeley, 1968, p.12., L.Sternberg, "Der antike Zwillingskult im lichte der Ethnologie", ZfE, lxi, 1929, p.160.

3. In 1.91.20, along with a cow rich in milk, and a person of "active knowledge", a fleet steed is one of the prizes that the god Soma gives to the person who worships the gods of the Vedic pantheon.

4. See for example v.41.3., 74.6,9., 75.3,5., x.22.4,5.

5. See iv.45.4.

6. ibid.

The horses of the Ásvins are the swiftest of all creatures because time and hence distance present no barriers to them. Whether they are far away or close at hand, they can appear in an instant. This is why a poet calls them the swiftest to appear.⁷ This and like tales serve the purpose of telling the hearers that the Ásvins are not slack in their appointed tasks, but are always ready to come speedily when trouble or need arises.

The Ásvins thus represent swift help. Although the name indicates their association with horses, it does not give us any idea that they are saviours or helpers. On this aspect we may see an ancient heritage preserved. The brothers in other lands of the Indo-Europeans also have an important connection with the acts of helping, protecting, and saving mankind.⁸ Such must have been the fame of the twins. It is interesting to see that they possess several important characteristics in common.⁹

The association with horses is of first consideration, although at times this often becomes secondary to more important aspects of their character. One of the epithets of the Greek Dioskouroi, the equivalent of the R̥gvedic Ásvins, is leukopoloi, "white horses",¹⁰ and Pausanias says that they were originally thought of as in the form of two horses.¹¹ Later, though how

7. See for example v.77.3., 75.5,6., viii.69., x.22.4-5., 65.4.

8. L.Sternberg, op.cit., pp.154, 158., H.Rosenfeld, "Germanischer Zwillingsgottkult", in Märchen, Mythos und Dichtung, München, 1963, p.270.

9. Healing and saving for example: see Leopold von Schröder, op.cit., p.449, vol.1. Regarding the acts of healing of the Dioskouroi, they appear to have been preëminent, even surpassing Asclepius. See L.Sternberg, op.cit., p.158., S.Eitrem, Die göttlichen Zwillinge bei den Griechen, Christiana, 1902, p.92.

10. H.Rosenfeld, "Die Vandalischen Alkes 'Elchreiter'", GRM, xxviii, 1940, p.269.

11. Pausanias, viii.25.5., Alkman, Fragment 9., H.Rosenfeld, "Germanischer..." op.cit., p.269.

much later we are not told, the white horses became their attributes, and then under the impetus of the Hellenes they were thought to wander in human form. The poet Pindar calls them "those noble horsemen, the sons of Tyndareius".¹² And the invaders of Britain, Hengist and Horsa, were thought of as two horses.¹³ In the Baltic mythology also, the twins' association with horses occurs. Thus, we see their horses outside the door of the Sun maiden, or on the hillside eating oats, and their golden steeds accompany the sun as it journeys across the heavens.¹⁴

Perhaps more than any other brother pair do the Greek Dioskouroi come closest to the meaning and functions of the Rgvedic Asvins. Dioskouroi means "sons of heaven". They appear riding snow white stallions, or travel in a chariot. Like the Asvins the Dioskouroi are "saving, greatly-aiding gods".¹⁵ In the event of any danger to their people, the Dioskouroi appear immediately, and just as quickly and miraculously they disappear once their tasks are completed. On land they especially appear as helpers in the very thick of battle, and with their saving help the battle is always won. Thus in the battle against the Cronians the Dioskouroi appeared¹⁶, and in 496 B.C. they appeared in a battle at the sea of Regellus.¹

The horses of the Dioskouroi, Zanthus and Kylarros, are just as much a part of the saving team as the riders or drivers.¹⁸ They are not only lauded by the poets, but their names are carved into wood and stone.

12. Olympian Odes, iii.39.

13. L.Sternberg, op.cit., p.154.

14. D.Ward, in Indo-European...op.cit., p.406.

15. Leopold von Schröder, op.cit., p.448, vol.2.

16. Justin, xx.3

17. H.Rosenfeld, "Germanischer...", op.cit., p.270.

18. Leopold von Schröder, op.cit., pp.447-448, vol.2.

In ancient Germany too we find traces of a once flourishing twin cult. According to Tacitus, a pair of divinities called Alces were worshipped by certain tribes.¹⁹ He compares them to Castor and Pollux, the individual names of the Dioskouroi.²⁰ The pair are brothers and youths and receive no image worship.²¹ Attempts to find the true meaning of the word have not been very successful so far. Two explanations that have withstood much disputation connect the word with, firstly, the Gothic alhs- "temple", and secondly, the Lithuanian elkas- "the gods'grove" or the Lettic elks- "idol". Thus the Alces could simply mean "the deities".²²

How then did the idea of the twin horsemen arise? The surviving evidence indicates that these twins had a very close association with horses, but it appears that the horse was only used as a nickname.²³ It was a sign of identity. That the twin horsemen in the widespread Indo-European world should be named horses or possessors of horses indicates that the similarities are too close to be ignored. An interesting parallel to the two horsemen occurs in a far-off land. This is the "sons of God" of ancient Israel.

The tradition about the "sons of God" can be traced back a long way. In the Old Testament, for example, we read of the bene ha-elohim, "sons of God".²⁴ According to several specialists, "sons of God" means simply "beings of the god-class".²⁵ In one place the expression stands parallel to "morning stars", and this also occurs in a mythical text from Ras

19. Germania, 43. See also W.Köppers, "Pferdeopfer und Pferdekult der Indogermanen", WBKL, iv, 1936, p.287., J.Hoops, RL, Strassburg, 1911, iii. p.298.

20. ibid.

21. ibid.

22. ibid.

23. As far as we know, no-one has put it quite that way before. We should remember, however, that the Asvins are primarily rescuers, savers, and healers, and the horses are their companions and means of locomotion. "Horse-possessors" therefore seems a natural identity mark.

24. Genesis vi.1.

25. Interpreter's Dictionary of the Bible, New York, 1962, p. 426, vol.1.

Shamra.²⁶ This suggests that these heavenly beings may have been regarded as stars. The *Ásvins* and the *Dioskouroi* have oftentimes been thought of as two stars, though this is just one of a number of suggested identifications. The "sons of God" of Genesis does correspond etymologically with the *divo napātā* of the *Rgveda* and the *dios kouroi* of early Greek literature.²⁸

Since, then, the twin beings are called "sons of God" or "sons of heaven", which indicates their divinity, and horsemen, which indicates their kinship with horses, who or what are they? That they are saviours is true, but are they human or divine saviours? Is it possible that the widely scattered Indo-European tribes could have invented these tales independently? What should be considered is that the twins at some time had achieved enough fame to be remembered by many peoples. Certainly tales were woven as time wore on and facts were forgotten, but the existence of the two has survived these ravages of time and mythology.

Some leaders whose historicity we cannot deny, such as Julius Caesar and Augustus, were deified within their own lifetime. Such, however, is the exception and not the rule, even with the Romans. The divine twins, if they did indeed exist, must have lived in an age when mankind was in its infancy. They have been glorified by poets for millennia, and they appear in the literature of the Vedic *Āryans* as spirit beings. Their character and functions, however, tend to betray an existence that may not have been a figment of the people's imagination.

British history records the historicity of the twin pair Hengist and Horsa. They and their followers arrive from Jutland.²⁹ They had come from the sea, and landed at Ebbsfleet on the island of Thanet.³⁰ The appearance

26. ibid.

27. W.Mannhardt, "Die lettischen Sonnenmythen", ZfE, vii, 1875, p.313., L.Myriantheus, Die Ásvins, Munchen, 1876, p.34.

28. A.Krappe, "Zum antiken Zwillingskult im Lichte der Ethnologie", ZfE, lxvi, 1934, p.187.

29. J.R.Green, The Making of England, London, 1882, p.28.

30. ibid., H.M.Chadwick, The Origin of the English Nation, Cambridge, 1924, p.97.

of the twins from the sea and their rescuings at sea often occurs in Indo-European tales. The landing of the brothers on the British coast is, however, regarded as historical and in no way fictitious.³¹ The historian Diodorus tells us of a time when the appearance of the heavenly twins was known to the Celts of ancient times:

the celts who dwell along the coast venerate the Dioskouroi above any of the gods, since they have a tradition handed down from ancient times that these gods appeared among them coming from the sea. Moreover, the country which skirts the ocean bears, they say, not a few names which are derived from the Argonauts and the Dioskouroi.³²

The twins are connected with sea rescues in several places in the Rgveda. First, however, there remains the question whether the Asvins used ships upon the waters. The Arabians used to call the camel the "ship of the desert".³³ Such an expression, if taken without proper knowledge of its real meaning, would be meaningless. In Homer, on the other hand, we find the reverse situation. Here the ship is called the horse of the sea.³⁴ In one of the great periods in the development of the German language the chariot is called "ship" and "vessel" or "land ship".³⁵ Old Nordic and Anglo-Saxon authors call the ship the "sea horse".³⁶ This is merely a metaphor for the ship. Many more instances could be cited.³⁷ In the Rgveda we find a similar situation: the horse or chariot of the Asvins is several times used to represent a ship or ocean-going vessel.³⁸

31. See for example, G.Kossinna, Die deutsche Vorgeschichte, Leipzig, 1941, p.87., R.H.Hodgkin, A History of the Anglo-Saxons, London, 1939, I, p.96., O.Huth, Janus, Bonn, 1932, p.87.

32. Diodorus, iv.56.4-5.

33. Julius von Negelein, op.cit., p.81., A.Schlieben, Die Pferde des Altertums, Neuwied, 1867, p.46.

34. Odyssey, iv.708.

35. Julius von Negelein, op.cit.

36. ibid., G.Pfahler, Handbuch deutscher Altertumer, Frankfurt, 1868, p.753.

37. Several comparisons reveal that the horse and water, and ship and chariot are interchangeable. Keles (κέλης) means a quick runner and a fast ship, and a quick sailing ship is compared with a quadriga, and a shattered chariot is compared with a ship wreckage. See Odyssey, xiii.81.

38. i.47.6., x.143.5.

Alluding to their affinity with the water, a poet declares that the Asvins are "sons of the sea, mighty to save".³⁹ And their chariot "travels ...in the sea" and "turns here from the sea".⁴⁰ It is in this context that one of the most popular of Rgvedic legends occurs.⁴¹ The sage Bhujyú was abandoned in the sea by his companions. The Asvins rescued him and brought him back to the shore in their mighty ship. For three days and an equal number of nights their unflagging birds(horses) journeyed in the sea until they reached their destination. The ship is propelled by one hundred oars, which, if an actual ship, was quite large by the standards of ancient times. The Asvins travel in what is sometimes called a ship(nau) and sometimes a chariot(ratha). This interchangeableness agrees with the identification of the horse and chariot with an ocean-going vessel.

Some further examples show that rescues at sea formed an important part in the work of the twins. The homeric hymn to the Dioskouroi deals with several important items.⁴² Both beings, we are told, were born to save, and this included both land dwellers and those on ships at sea. It appears that danger is always associated with ocean-going vessels. The references to stormy weather and turbulent waters makes it sufficiently clear that safety was all the more welcome and precious. The hymn tells us of how the ship's crew cried and prayed to the Dioskouroi when a wild storm tossed the ship about like a piece of driftwood. In an instant, however, the Dioskouroi appeared, flying through the air on golden, shining horses. They calmed the turbulent sea, and delighted the ship's crew by their deed.

The Greek twins used also to accompany the Peloponnesian colonization

39. i.46.2. yá dasrá síndhumātarā manotārā rayīnām.

40. iv.43.5,6., i.30.17,18. síndhur ha vām rasáyā síncad ásvān ghrnā váyo 'ruśāsah pári gman. samudré ásvinéyate.

41. i.112.6., 116.3-5., 117.14., 119.4.

42. See hymn xxxiii, in The Homeric Hymns, Oxford, 1963, ed. T.W. Allen.

of the West,⁴³ and the eastern expansion of Hellenism round the shores of the Black sea.⁴⁴ When lightning struck the masts or sails of a ship, a glow often formed about the mast-head. This curious phenomenon was often ascribed in classical literature to the Dioskouroi. In the seventeenth century these lights were known to Mediterranean sailors as Corposants(corpo santo), or St.Elmo's fire.⁴⁵ They have excited the superstitious attention of sailors down through the ages.

The fame of the brothers was widespread in the ancient world. The author of the Phoenecian history, Sanchoniatho, says that the Dioskouroi were also called Cabiri, Corybantes or Samothraces. They are credited with first inventing a πλοῖον, or complete ship.⁴⁶ The story of the brothers' having invented the first ship appears to have been widely believed in in the ancient world.

In an interesting passage in Acts of the New Testament, the author Luke mentions that the Alexandrian freighter in which the Malta-to-Puteoli (near Naples) part of the sea journey was made carried the figurehead of the "twin brothers" Castor and Pollux.⁴⁷ These divinities were the special friends and patrons of distressed sailors. Luke's reference to the ship's sign may have been prompted by the shipwreck of the previous Alexandrian ship.⁴⁸ Interestingly enough, personal names derived from Castor and Pollux were common in Egypt, and Dioskouric worship was widely disseminated.⁴⁹

43. Thus the cult of the Dioskouroi at Tarentum, and the name Tyndaris given to the Messenian colony in Sicily. See B.V.Head, Historia Numorum, London, 1963, p.189 for the coins of Tyndaris on which they bear the title ΣΩΤΗΡΕΣ. T.W.Allen, op.cit., p.438.

44. Miletus founded Dioskoriae probably before the Ionian revolt. For the coins see B.V.Head, op.cit., p.495.

45. J.T.Bent, Early Voyages and Travels in the Levant, London, 1893, p.127. St. Elmo's fire is known in the laboratory as corona discharge.

46. Sanchoniatho, p.28. Distinguish between πλοῖον and ναυς. The former can be any kind of ship, while the latter is a ship of war.

47. Acts 28:11.

48. M.Unger, Archaeology and the New Testament, London, 1962, p.313.

49. J.Moulton and Milligan, Vocabulary, N.Y., 1949, p.159.

Perhaps it is too much to assume a mortal origin for these brothers. What cannot be denied, however, is the long tradition that exists in many lands about them. One author wants his readers to believe that the solution to the problem can be found in the universal attitudes toward multiple births.⁵⁰ This is an attitude of veneration. Yet the very fact that the twins or brothers have a very long tradition found in various lands at least does not dismiss the view that they were mortals.

Let it be remembered that obscurity invariably attends heroes who have been deified after their death, and upon whose memory poets have troubled themselves "to scatter the weeds as well as the flowers of their fancy."⁵¹ What may have happened is that there has been a succession of these brothers, a series of avatāras. The Spartan dual kingship was a reality, and so were the heroes Hengist and Horsa.⁵² May not the Ásvins have also been real? Either way, they, among all the gods of the R̥gvedic pantheon, have bequeathed to us the best record of authenticity.

The Indo-Europeans thus saw the twins as saving the crews of ships. The use of the horse and chariot is not surprising when we remember that the horse represented speed, strength, and endurance, and these qualities were also those of a good ship. Henceforth the twins were the beings to whom ships' crews looked to for help when danger threatened or a speedy journey was needed. Perhaps the historical prototypes of these twins were responsible for a few sea rescues, and consequently they became the divinities of aid at sea.

The story of Bhujyu is an example of the Āryans' record of the brothers'

50. D.Ward, op.cit., pp.25-26.

51. S.Turner, History of the Anglo-Saxons, London, 1836, I, p.218, note 5. C.Robert, Die griechische Heldensage, Berlin, 1920, I, p.310, calls the Greek gods "originally outstanding heroes."

52. An Universal History, London, 1736, viii, p.441.

rescuings at sea. One author believes that the story of Bhujyú reflects solar phenomena.⁵³ Another author believes the episode reflects the rescue of the setting sun by the Asvins.⁵⁴ As a parallel, a Latvian daina tells of the "sons of God" rowing their boat to save the drowning sun maiden when only her crown is visible.⁵⁵ This observation, like the Bhujyú legend, may have arisen from solar phenomena. There are, however, quite a few questions that need answers. The solar theory is all too often seen as pervading nearly every myth of the R̥gveda, and any hint of a rescue exposes a myth to claims that it is solar in origin. Although the story of Bhujyú is open to every possibility, it should be borne in mind that the brothers' most lasting attribute is their reliance as rescuers or saviours at sea. If for this reason alone, Bhujyú's rescue is a possible sea rescue and nothing more.

The brothers are thus remarkable sea rescuers. They are also famous for their ability to effect quite remarkable feats on land. Here we may especially recall their many works as, for want of a better word, community workers and life savers. They are akin to and fulfilled a similar role as a modern-day rescue squad. Their help is frequently sought and their appearance is a welcome relief. Their help is never failing, and they can be relied upon to give whatever aid is needed. No other R̥gvedic god quite approaches the station or position of these rescuers, and for this reason alone they warrant enquiry. Their exhaustless bag of aids is as mixed as the tasks they are called upon to attend.

Our enquiry finds that the divine twins are especially healing or saving gods, physicians and helpers.⁵⁶ It is this role of saving and helping

53. L. Myriantheus, op.cit., pp.16, 69.

54. Leopold von Schröder, op.cit., II, pp.442-443.

55. See A. Svabe, et.al., Latviesu tautas dziesmas, Copenhagen, 1952, I, hymn 386-33969.

56. See M. Mayrhofer, KEW, Heidelberg, 1956, I, pp.156-157., J. de Vries, Altgermanische Religionsgeschichte, Berlin, 1956, II, p.251., F. Schachermeyer, Poseidon... Bern, 1950, p.78.

mankind that especially marks these gods out from others. The Asvins are given a title that has caused some problems: divine physicians.⁵⁷ The problems arise principally because the Rgveda has only a little to say about medical subjects. It is not after all a medical text. The verses that do enlighten the reader about the scope of the Asvins' activities as physicians are also obscure, and may lend themselves to several interpretations.

The word bhiṣáj- means saviour or physician.⁵⁸ The Asvins are physicians par excellence. They are especially "wonder-working physicians."⁵⁹ Bheṣajá-, its companion, means a cure or medicament.⁶⁰ It is these cures that the physician uses. One verse says that the Asvins "are truly physicians with medicaments..."⁶¹ When we talk of a physician we mean a specialist who performs such tasks as mending a broken limb, restoring the strength of an emaciated person, or dealing with an eye injury. Indeed, as we shall see, the Asvins' deeds extend beyond the normal: that is why they are called wonder workers (dasrā).⁶² Like other gods and their foes, the demons, the Asvins possess supernatural power called māyā. In one place they are called "lords of magic power",⁶³ a title they share with Soma and Vṛtra only!

The Asvins are credited with giving fertility to the bride, a child to a eunuch's wife, and milk to a barren cow.⁶⁴ There is of course no physical explanation for these occurrences, and hence they can be regarded

57 . viii.18.8. utá tyá daívyā bhiṣájā śám nah karato asvínā.

58. See H.Grassmann, op.cit., col.936.

59. See J.Gonda, The Dual Deities in the Religion of the Veda, Amsterdam, 1974, p.42.

60. See H.Grassmann, op.cit., col.964.

61. i.157.6. yuvám ha stho bhiṣájā bheṣajébhír....

62. See H.Grassmann, cols. 585-586.

63. See ibid., col.1035.

64. D.Ward, op.cit., p.198.

as inventions, though the poets and priests firmly believed in their reality and efficacy. But miracles such as these are beyond physical explanation, and attempts to find a rational explanation would be rather futile.

Yet while the Asvins are credited with performing miracles that defy explanation, they also perform deeds that can be quite adequately explained. The following verse is an example:

You, o Nāsatyas, it is you who
are called doctors of whosoever
is blind, of whosoever is weak,⁶⁵
of whosoever has had a fracture.

Here at last we have something more substantial. These are cases of everyday life. The horsemen-physicians worked in an age when battles were being fought almost on a daily basis. The Āryans' enemies were many, and life represented a real struggle. Casualties and deaths must have been high. The poets are forever invoking the gods to bestow upon the population many sons, in order that the army's numbers would be increased.⁶⁶ Songs of praise would be sung round the sacred fires to commemorate the name of a victor or hero. After all, the Vedic Āryans deified horses because of their special martial qualities and daring in battles: how much more so men!⁶⁷

There was here a very special need for care of the ill. The chief physicians, healers, bone-setters, and health bestowers were the Asvins. Judging from the examples that are recorded in the Ṛgveda, blindness must have been quite common. We will look at two examples.

Our first case concerns a man called Parāvṛj. The name means "rejected" or "outcast".⁶⁸ Some believe that this name refers not to a person but to the setting sun.⁶⁹ The sun is called blind because its light is

65. x.39.3. andhāsya cin nāsatyā kṛśāsya cid yuvām id āhur bhiṣajā rutāsya cit.

66. See R.T.H. Griffith's Hymns of the Rigveda, on i.112.8.

67. See the separate chapter on the horse's divinity.

68. H.Grassmann, op.cit., col.783.

69. R.T.H.Griffith, op.cit., note on i.112.8.

nearly gone, and lame because it no longer travels. One researcher does concede, however, that this event does refer to "curative help rendered by them(the Asvins) in favour of real blind men, but it has definitely a mythical origin."⁷⁰ The reference is quite specific in what it says: the outcast, who was formerly blind and lame, was made to see and walk. Unfortunately no information whatever is given about the form of treatment used upon the individual to restore his eyesight. We are only told that the Asvins used "power" or "energy."⁷¹

Another case involves a person called Rjrasva.⁷² His father, we are told, blinded him, but the Asvins, "wonder-workers, physicians...gave him eyes...that he saw with sight uninjured."⁷³ And in another verse about this same wonder we read that the Asvins gave "eyes" to Rjrasva, "light to the blind you(two) sent for perfect vision."⁷⁴ Rjrasva's father had "pushed" him into darkness, which is another way of saying that he was blinded. The Asvins gave him sight again, and with his eyesight restored he was able to see as clear as by daylight. To see clearly means coming out of darkness.⁷⁵

These verses are mentioned together with a long list of other wonders that are attributed to the Asvins. There are, however, too many gaps in the information presented to enable us to come to any firm conclusions. Perhaps the persons received only minor injuries, but the degree of injury was exaggerated in order to increase in the ears of the hearers the super-powers of the Asvins.

70. A.Bergaigne, Vedic Religion, Poona, 1971, II, pp.470-471.

71. i.112.8. vṛṣaṇā parāvṛjāṃ prāndhām śronām cakṣasa etave kṛthāḥ.

72. Literally "red horse".

73. i.116.16. tāsmā akṣī nāsatyā vicākṣa ādhattam dasrā bhiṣajāv anarvān.

74. i.117.17. ākṣī rjrasve asvināv adhattam jyōtir andhāya cakrathur vicākṣe.

75. iv.16.4., i.113.5.

The Asvins' duty extends beyond that of sight restorers. They help the lame to walk and mend fractures. In one verse we read that "the brahman seeks the worshipper, the wright seeks the cracked, and the leech the maimed."⁷⁶ More precisely, the last word means the broken bone.⁷⁷ There are a few references to broken bones,⁷⁸ yet one of the most interesting cases concerns a being who had a lower leg severed in a battle.

In a verse about the circumstances of Viśpalā's accident we read:

For a leg was severed like that of
a flying bird in the battle of Khela
at the break of morn; forthwith a bronze
limb was put on the lower part of
Viśpalā so⁷⁹ that she could hasten to
the booty.

From this we can see that Viśpalā's limb was completely severed and a metal prosthesis(probably of bronze) was given to her. The time of the event was just before dawn, part dark and part light. It could have been a pre-dawn raid on some enemy fortifications or encampments, and, the light not being too good, the approaching weapon was not seen.

There are many questions that could be asked about this particular event, some of which can be answered satisfactorily and others not so satisfactorily.

The identity of Viśpalā has long puzzled inquirers. Was she a mare or a woman? Most modern opinion would say that she was a woman⁸⁰, but a few believe that she was a mare.⁸¹ One inquirer believes that Viśpalā "must

76. ix.112.1. tákṣā riṣṭám rutám bhiṣág brahmā sunvántam ichatīndrāyendo pári srava.

77. H.Grassmann, col.1170., op.cit.

78. ibid.

79. i.116.15. carítram hí ver ivāchedi parṇám ājā khelāsya parítakmyāyām/ sadyó jānghām āyasīm viśpālāyai dhāne hité sártave práty adhattam.

80. Böhtlingk und Roth's SW, vi, p.1220., A.Bergaigne, op.cit., p.501., A.Ludwig's tr. of the Rgveda on iv.24.

81. D.Ward, op.cit., p.18., J.P.Jog, "The Asvins in the Rigveda...", JUB, xxxiii, p.36.

denote a being originally identical with Sūryā."⁸²

From a practical viewpoint Viśpalā might well be a human. There cannot be a categorical affirmation because prostheses for animals have been known.⁸³ Prostheses for humans, however, is much more well-documented. A parallel to the Viśpalā episode occurs in early Grecian mythology. A Crotonian strategist called Phormio was wounded in the foot during a battle with the Locrians. The Dioskouroi appeared immediately and effected a miraculous cure.⁸⁴

If the story of Viśpalā appears far-fetched, an examination of other literature points to not a few prostheses in antiquity. In early Irish tales there is recorded a man called Nuada Argetlam, "the silver-handed." Like the Vedic Āryans, the early Irish had their favourite physician. His name was Diancecht, and belonged to the Tuatha de Danaan. Nuada had a hand severed. Diancecht wasted no time to display his skill and fashioned for him an artificial hand made of silver! This hand, the story continues, was made so skilfully "that it moved in all its joints, and was as strong and supple as a real one."⁸⁵

In all events, Viśpalā may be the earliest recorded occurrence of the phantom-limb phenomenon. This is where the severed part of the body can still be felt. But this would contradict what the text says, namely, that a bronze or iron limb was made for her. Āyas could well mean bronze, though the question is still not settled.⁸⁶

82. A. Bergaigne, op.cit. cf. i.161.10 for the lame cow of the R̥bhus.

83. See F.W. Oehme and J.E. Prier, Textbook of large animal surgery, Baltimore.

84. L. Preller, GM, Berlin, 1894, II, p.103., Leopold von Schröder, op.cit., II, pp.449.

85. C. Squire, Mythology of the British Islands, London, 1905, p.78.

86. See L. Beck, Die Geschichte des Eisens... Braunschweig, 1889, I, passim. S.D. Singh, "Iron in ancient India", JESHO, v, 1962.

Supposedly the first written account of a prosthesis is recorded by Herodotus.⁸⁷ However, if the prosthesis given to Viśpalā was an actual case, then this must be the first ever recorded. Herodotus tells us that the seer Hegisistratos was caught in a fox trap. So that he might not be captured and be put to death, he cut off his foot, and after his recovery he had it replaced by a wooden foot.⁸⁸ Pliny reports how one Marcus Secundus survived thirty-three wounds in various battles, and in one he lost his right hand.⁸⁹ He had a prosthesis made of iron, and fought in many more frays in the Second Punic War. He could carry his shield with this iron hand.⁹⁰

We believe that prostheses in antiquity were by no means isolated phenomena. Their manufacture could well have been on a fairly large scale.⁹¹ Judging from the scanty finds and equally scanty literary references, the prostheses of antiquity were of a high quality. The most famous of all prostheses is probably the "wooden leg of Capua". This leg, which can be dated to around 300 B.C., had a bronze coating over a wooden crust.⁹² Perhaps Viśpalā's leg was similarly made. Not until the "Small Louane", a locksmith, in 1560 prepared a limb and an arm for Ambrose Pare, was there again a prosthesis of such perfection as the "wooden leg of Capua."⁹³ In relatively modern times Prince Frederick II von

87. E.Scharizer, "Artificial limbs in antiquity", *MfUV*, lxiv, 1961, p.469., Herodotus, *History*, ix.37: "Hegisistratos, I say, did a deed for which no words suffice."

88. E.Scharitzer, *op.cit.*

89. vii.29. He is said to have lived around 200 B.C. See *OAA*, Ann Arbor, 1960, II., C.P.McCord, "Cork legs and Iron hands", *IMS*, xxxii, 1963, p.109.

90. E.Scharizer, *op.cit.*, pp.468-469.

91. *ibid.*, p.570.

92. *ibid.*

93. *ibid.*

Hessen-Hamburg lost a leg at Copenhagen in 1659. He had a replacement made of silver.⁹⁴

Not only are survivals of prostheses scarce because of the rapid decay of the material(which in most cases would have been wood), but also because the person may not have survived. Once the stump had healed, however, the making of a relatively simple peg-leg could have been well within the capacity of the local carpenter. The R̥gvedic prosthesis, therefore, while fanciful, may not have been a figment of the poet's imagination.

The Aśvins are great healers and helpers of mankind, as seen in the case of Viśpalā. Their diverse functions are part of their role as physicians. The Aśvins are frequently requested to bring the worshipper nourishment. Prkṣā, iṣa, and bhójana are three words that can mean nourishment.

An interesting case where nourishment occurs is in a legend about a man called Átri. His name, "the consumed one",⁹⁵ explains in part the maltreatment that he was subjected to. He was thrown into a fiery pit by some of the Āryans' enemies. The Aśvins came to the pit and extinguished the fire. "You warded off with cold(water?) the fire's fierce burning; food very rich in nourishment you gave."⁹⁶ The Aśvins administered a cooling or protective application to Átri. "You(two) administered to Átri (in) the fiery pit a pleasant substance, to

94. ibid. Other relatively recent examples could be cited, as for example, Paolo Giovio relates that the Turkish corsair Horuk (otherwise known as Horush or Arouj or Koruk) lost his right hand in the battle of Bugia (1517) against the Spaniards and had an iron prosthesis especially made for him: qua cubitum religia multis in proeliis postea feliciter usus est. Also, Duke Christian of Brunswick lost his right hand in the battle of Fleury (1622), and had a replacement made by a Dutch worker. See the excellent article of V. Putti, "Historic artificial limbs", AJS, vi, 1929, p. 113.

95. H. Grassmann, op.cit., col. 31.

96. i. 116. 8. himénaḡnīm ghraṅsám avārayethām pitumátīm ūrjam asmā adhattam.

Saptavadhri".⁹⁷ The words ómanvat and omān are translated by Geldner as "preservative".⁹⁸ In another verse the poet speaks of the "wonderful nourishment with which you(two) warded off the powerful heat(?) from Átri, who as your beloved receives your goodwill."⁹⁹ Both verses refer to the same thing. In the last verse cited the protective aid is called citram bhójanam, "wonderful nourishment." The qualifying word citram underlies the importance of the substance. Geldner considers bhójana to be a sort of ambrosia.¹⁰⁰ In addition to this, Átri is also given a vitalizing elixir, which may be the same as that used to cool him down.

A study of the use of the word omān may enlighten our understanding of the aids given to Átri. Omān occurs in the verses referring to Átri and in one verse referring to the waters.¹⁰¹ In this last instance we read:

You benevolent waters bring uninjured
aid; to future generations peace and
prosperity, because you are the most
motherly of physicians-mothers of all
that moves and moves not.¹⁰²

Oldenberg and others consider that omān has a double meaning, namely, cold and blessing.¹⁰³ Geldner thinks that "cooling" is perhaps the more suitable here.¹⁰⁴ He adds that the aid which the Ásvins give to Átri is

97.x.39.9. yuvám ṛbīsam utá taptám átraya ómanvantam cakrathuḥ saptávdhraye.

Saptávdhri, according to Bergaigne, means "he who has seven castrated (horses).", op.cit., II, p.477. It is an epithet of Átri.

98. Commentary on vii.68.5.

99. vii.68.5. citram ha yád vām bhójanam nv ásti ny átraye máhiṣvantam yuyotam/ yó vām omānam dádhate priyāḥ sán.

100. Commentary on vii.68.5.

101. i.112.7., 118.7., vi.50.7., vii.68.5., 69.4., x.39.9.

102. vi.50.7. omānam āpo mānuṣīr amṛktam dhāta tokāya tānayāya sám yoh/ yuyam hí ṣṭhā bhiṣájo māṛtamā víśvasya sthātúr jágato jánitrīḥ.

103. H.Oldenberg, Rgveda-Textkritisches...., Berlin, 1909, I, p.103.

104. Commentary on vi.50.7. cf.i.34.6.

used against sickness or high temperature.¹⁰⁵ Professor Geldner's explanation is appropriate in the circumstances. In the Átri legends a cooling agent would be the best treatment for the burnt Átri. This cooling agent is probably the waters referred to above.

The waters bring these aids because they are physicians. Water is regarded as a medicinal.¹⁰⁶ In like manner, the poet requests the Ásvins, who have charge of medicinals from heaven, earth and water,¹⁰⁷ to grant poor Átri the protection of their curatives. Geldner suggests that here also omān may mean "cooling".¹⁰⁸ The word for "curative", śamyoh, is used as a descriptive title for Rudra in one place,¹⁰⁹ and in the previous place Grassmann translates it as "health and prosperity."¹¹⁰ In all these instances Átri was cooled down and restored to health by the Ásvins.

The idea of restoration and rejuvenation is in fact a prevailing theme in the verses about the Ásvins. The aides which they bring on their miraculous three-wheeled chariot are for their human worshippers. "On this(chariot) are three shared sources of nourishment; a fourth is a bag of honey full to the brim."¹¹¹ The word translated as "nourishment" here, prkṣā, may mean a number of things. It especially means "invigorating" and may refer to the horses of the Ásvins or the powers of sustenance or the elixirs which the Ásvins so frequently bring.¹¹² As

105. ibid.

106. i.34.6., vi.50.7.

107. i.34.6. cf.viii.9.15."Whatever healing balm is yours, Nāsatyas, near or far away...." yān nāsatyā parāké arvāké āsti bheṣajam.

108. i.34.6. trīr no ásvinā divyāni bheṣajā trīḥ pārthivāni trīr u dattam adbhyāḥ/ omānam śamyór māmakāya sūnāve tridhātu śarma vahatām śubhas patī.

109. i.43.4. gāthāpatim medhāpatim rudrām jalāṣabheṣajam/ tāc chamyoh summām īmahe.

110. H.Grassmann, op.cit., col.1365.

111. iv.45.1. prkṣāso asmin mithunā ādhi trayo dṛtis turyo mādhuṇo vi rapsate.

112. See, for example, iv.45.2., vii.60.4. Also, i.34.4., 47.6., 139.3., iv.43.5., v.73.8., 75.4., 77.3., vi.62.4.

an elixir it may mean honey or a sweet substance.¹¹³

There was in the days of the Āryan rulers a saying, already ancient, that the Asvins were the swiftest gods to come and prevent decay and trouble. This is why verses speak of the life hereafter where there will be no decay.¹¹⁴ It is the same hope of all religions from the most ancient to modern times.

The R̥gvedic poets stress how unshaken is their belief in the ability of the Asvins to prevent decay, scarcity and affliction. The Asvins' existence is therefore the answer to the pains and many troubles that occur in this life, and at the same time provide the promise of a better life hereafter. The poet gives to them possession of a nourishing substance that appeases the appetite, gives added strength, delays affliction, and in addition to all these, has preserving properties. One verse tells of how the Asvins "mount that early harnessed chariot that travels early, laden with its freight of balm."¹¹⁵ Honey is frequently associated with the Asvins. Indeed, one of the epithets applied to them is "lovers of sweetness" or "lovers of honey."¹¹⁶

The word for honey in the R̥gveda, mādhu, may mean anything sweet, and at times it is used to qualify a word, as in sweet soma.¹¹⁷ The Indo-European intoxicating drink was prepared from honey. It was called methu by the Greeks, and in other languages meto(OLG), mjoðr(Old Nordic), mid(Irish), medu(Old Slavonic), meddo(Old Persian), and midus(Lithuanian). As one author

113. iv.45.2. úd vām prkṣāso mādhumanta Īrate ráthā ásvāsa uśāso vyūṣṭiṣu.

114. i.154.5. It is interesting to note that the place where immortality is and where former mortals enjoy their new existence is the "fount of honey" or sweetness(x.1.3.). This is also the place where Viṣṇu places his highest footstep(i.22.20,21., 154.5,6., iii.55.10., vii.100.5.), which is itself identical with the highest birthplace of Agni(i.143.2., ii.9.3., vi.8.2., vii.5.7., x.45.1., 187.5).

115. x.41.2. cf. i.157.3, and i.34.2. prātaryújam nāsatyādhi tiṣṭhathah prātaryāvānam madhuvāhanam rátham.

116. mādhvī. Geldner says that "Perhaps honey originates from the Asvins since they are called mādhvī". See his comments on i.112.21.

117. See H.Grassmann, op.cit., cols.983-985.

says: "There can be no doubt that honey was well-known in the first home of the Indogermanics."¹¹⁸

Many indeed are the references in the R̥gveda to the honey or similar sweet substance that the Asvins carry and bring to humans.¹¹⁹ Where does honey fit into the R̥gvedic notion of the Asvins' functions? Mention has already been made to the Āryans' concern about decay. The prayers of the Āryans to their gods reveals a deep concern for the problems of this life. Doubtless the life of the average Āryan was subject to much want. The reason, therefore, why honey was so popular with the Āryans was because it symbolized, perhaps more than any other substance, immortality. Because it prevents decay it symbolizes immortality.¹²⁰ In addition, honey could have been considered the essence of plants and saps.¹²¹ This could account for its efficacy in representing or promoting fertility.

The Āryans believed that the Asvins' chariot carried this divine essence. Thus the poet asks the Asvins to sprinkle the sacrifice with their honey-rich whip: "Your whip, grand and sweetly nourishing, O Asvins, with this the sacrifice is sprinkled."¹²² There are a number of possible interpretations of this passage. It may, on the one hand, refer to an actual mixing of some sweetener, such as honey, with the Soma juice, or it may refer to the sweetness inherent in plants themselves, and this is the juice that is extracted by the pressing-stones. To account for this property which the plant possesses the Asvins are held to be creators. They are responsible for the plant's sweetness, as they are also responsible for the healing properties of other substances. Thus one verse reads: "You(two)

118. *op.cit.*, II, p.386.

119. For example, i.22.3., 157.3,4., v.75.1., ix.107.5.

120. If it is properly stored, honey can be kept for a long time. The ancient Egyptians, for example, used honey to embalm their dead. See N. Yoish, Curative Properties of Honey and Bee Venom, New York, 1978.

121. J.Gonda, Dual Deities...op.cit., p.45.

122. i.22.3. yā vām kaśā madhumaty asvinā sūṛtāvātī/ tāyā yajñām mimikṣatam. cf.i.157.4. The whip is the characteristic weapon of the divine twins. See J.Rendel Harris, Picus...Cambridge, 1916, p.57.

have created marvellous things in waters, trees and plants..."¹²³ In these three objects the healing balms exist. The Asvins created them for mankind's benefit. And so we see that they are also credited with having created in all living things the power to reproduce.¹²⁴ The Āryans did appreciate that there is a 'germ' in life that causes life to be renewed. And so the Asvins are responsible for creating new life, in other words, rejuvenating life.

The chariot of the Asvins excites great expectation among Āryans. Their chariot receives praise because it is loaded with honey: "Refresh the way you go, refresh the paths with honey; here, o Asvins, bring the skin that holds the honey...harness for the honey your dear chariot! You (two) enliven the path with honey..."¹²⁵

While the Āryans placed great emphasis on the importance of honey, they were not the only people to do so. The ancient Greeks, for example, equated honey with nectar.¹²⁶ Honey seemed to them to have a special divine character. It was in fact the drink of the gods. Honey, together with milk, were special attributes of the divine world, and they both flowed abundantly in the land of the blessed, where the gods dwelt.¹²⁷ For many peoples honey was the only sweetener, apart from sweet fruit. It was much in demand and therefore expensive. Because of this demand it was the more highly thought of.

In Germanic mythology, for example, bees feed upon the world-tree

123. viii.9.5. yád apsú yád vánaśpátau yád óśadhīṣu purudañśasā kṛtám.cf. i.34.6.

124. i.157.5. yuvám ha gárbham jágatīṣu dhatto yuvám víśveṣu bhúvaneṣv antáh/ yuvám agním ca vṛṣanāv apás ca vánaśpátīnr asvínāv aīrayethām.

125. iv.45.3. mádhvaḥ pibatam madhupébhir āśábhīr utá priyám mádhune yuñjātgam rátham/ ā vartaním mádhunā jinvathas pathó dṛtīm vahethe mádhumantam asvínā.

126. H.Güntert, Der arische Weltkönig...Halle, 1923, p.160.

127. In the early age of the earth's history when the earth was unspoiled, "streams of milk and streams of sweet nectar flowed, and yellow honey was distilled from the verdant oak." Ovid, Metamorphosis, I, 111-112. See also F.A. Kuhn, Die Herabkunft...Berlin, 1859, pp.121ff.

Yggdrasil, which happens to be located in the land of the blessed.¹²⁸

What is especially significant, however, is that not only is honey regarded as a delicious food (for it was more than a drink), but also as a medicine.

In ancient Egypt, honey enjoyed pride of place amongst foods and medicines. From the earliest times, it featured among offerings to the gods.¹²⁹ Beekeepers formed an officially recognized profession.¹³⁰ In the early Egyptian medical papyri, there are many cases where honey was used for a variety of ailments. The swnw, the Egyptian physician, chose a substance that was

practically harmless to the tissues,
aseptic, antiseptic, and antibiotic...
the ingredient: nothing else, in ancient
Egypt, could have begun to match these
properties of honey.¹³¹

The Āryans knew as well as any other people of antiquity that honey was an excellent source of nourishment. In addition, it was very sweet. The Āsvins are associated with rejuvenation and fertility, and honey being considered an excellent rejuvenative, was connected with the Āsvins. Honey also attained a high place in ancient society because it was mysteriously made. The Āsvins are thus responsible for the sweet sap of the Soma plant: the healing plant par excellence. And they were responsible for the making of honey, whose origin was in plants. The relationship between honey and plants (especially Soma) is thus unmistakable.

The Āsvins are credited with creating the drink of immortality, but they are more than rejuvenators and healers. They were also saviours, as

128. W. Mannhardt, Mythologische Forschungen, Strassburg, 1884, p. 535., J. Grimm, Deutsche Mythologie, New York, 1966, II, pp. 664, 666. Reprint.

129. F. Hartman, L'Agriculture dans l'ancienne Egypte, Paris, 1923, pp. 205-206.

130. J. G. D. Clark, "Bees in Antiquity", Antiquity, xvi, 1942, p. 210.

131. G. Majno, The Healing Hand, Cambridge, Mass., 1975, p. 118. Honey was the most popular medicine in ancient Egypt.

we have seen in the rescue of Bhujyu. One of their epithets, nāsatya, is believed by some to mean "saviour."¹³² It may well be the older name of the pair. In the Matiawaza text the word nāsatya appears, and not Asvin.¹³³ As we have said earlier, Asvin was probably originally just a nickname, but it soon became their proper name. The origin of the word nāsatya appears to be lost. Some would derive it from a word meaning "not-untrue", or even "nose", but both of these are doubtful.¹³⁴ Another possible derivation, though not so popular, derives the word from sata, "rider", with a prefix na.¹³⁵ Yet another takes it to mean "saviour, rescuer through speed."¹³⁶ This interpretation befits the Asvins' character more than any other explanation. As saviours of mankind, they are often invoked .

Nāsatya may thus be thought of as saviours. There is yet another part to their character that has not been dealt with before. This is that they were given a special command that sums up their tasks:

You(two), under the dominion of the
heavenly, rule over every tribe, by the
vastness of your immortality.¹³⁷

Here the place of the Asvins is seen: they are between the gods of heaven and the mortals of earth. According to the decree of the gods they were appointed as the helpers and healers of mankind. They are, in effect, given the position of roving emissaries of the gods. They thus have a commission-

132. M.Mayrhofer, KEW, op.cit., pp.156-157, I., H.Güntert, op.cit., p.529., D.Ward, op.cit., p.14.

133. F.Schachermeyer, op.cit., p.78., S.Konow, The Aryan Gods of the Mitani People, Kristiana, 1921.

134. M.Mayrhofer, op.cit., p.157.

135. "Completely off the track", says M.Mayrhofer regarding this thought of J.Przyluski. See the latter's article, "Satvant, Satvata and Nāsatya," IHQ, ix, 1933, pp.88-91.

136. H.Güntert, op.cit., p.259.

137. i.112.3. yuvām tāsām divyāsya praśāsane viśām kṣayatho amṛtasya majmānā. cf.Pindar, Olympian Odes, iii.39, where Herakles assigned to the sons of Tyndareius, "the ordering of the wondrous contest waged by men, the contest in prowess and in the driving of swift chariots."

to fulfill on earth. That is the reason why we find so many verses speaking of their numerous feats of rescuing and healing. Whatever the brothers were, they are credited with possessing considerable skill in many areas. Hence nāsatya could have been their original title. Only later when they used horses in their rescuings did the twins become associated with horses, indeed, one might say inseparable from them.

The Asvins begin (and perhaps even follow) a long tradition about brothers. They existed in a past age, but their heritage had been passed on from generation to generation. Accuracy may have been sacrificed at times by the poet's whim in favour of fictitious story-telling, but the substance of many of the tales cannot be lightly dismissed. The brothers are especially close to man, perhaps more than any other god. And while it is true that inquirers in the past have been inclined to shy away from a human origin of the gods, it is not easy to dismiss the possibility that the twins such as the Asvins could once have been just that, namely, human horsemen.

Chapter II

HORSE AND CHARIOT

Technology's impact on all our lives does not become clear until we review the changes over the years, decades, centuries, and millennia. The further we look back the more we are able to marvel at the effect of the changes on our lives. The advent of the internal combustion engine heralded a new era and its impact is still being felt. This invention had revolutionary implications since it meant the displacement (either wholly or in part) of one form of power that mankind had relied upon since his first appearance.

Animal power had faithfully met most of man's needs quite adequately. True, travel time was slow and muscular effort took time to accomplish the purpose required of it, but there was something there that forces one to overlook what disadvantages there were. Mankind had a close relationship with those animals that he relied upon, as one can still see today in certain rural areas of the world. Companionship went hand in hand with work. Man knew the animals he worked with and they knew him.

Hindered by being unable to travel back in time and disburdening our own times' outlook and influences, it is difficult to explain the tremendous impact animals had on man's lifestyle. For it was really nothing short of spectacular. Of all the beasts that have contributed to mankind's progress and purpose, whether for good or ill, few can rival the horse. To give a proper appreciation of the services rendered by this most noble beast is a formidable task and could scarcely do justice to the animal. Before mankind's familiarity with the horse he could move no faster than his legs could carry him. With the use of the horse, however, he could travel distances hitherto unthought of. The horse enabled overland travel to advance, mobile, far-ranging armies were possible, and empires could become reality and be protected.

Traversing distances has always taken time; with the horse it became quicker and easier. Communications took less time; conquest became more

desirable; and sport grew to suit popular taste. The changes wrought by man's employment of the horse for innumerable purposes lasted until the internal combustion engine. The thousands of years that intervened between the first use of the horse and its gradual deëscalation is itself a pattern of great change. We shall be looking at a period comparable in technological and revolutionary impact to the beginning of this twentieth century. The middle of the second millennium B.C. was such a period. It witnessed the unquestioned rise and undiminished supremacy of the horse. In the field of chariotry it made its most significant impact.

Speed among animals was and still is something marvellous to behold. Witness the swift eagle as it swoops effortlessly upon its prey, or a race horse galloping through the open plains. Both are beautiful sights and pictures of harmony and gracefulness. The Indo-Europeans (and especially one of their branches, the Āryans) knew both creatures. In keeping with their keen eye on the marvels on and above the earth, they have preserved for future generations their appreciation of wonderful phenomena. The Āryans assigned to the horse the first place among swift beasts so much so that the Āryan name for horse means "swift".¹ It was this aspect that caught the eye of the Āryans and reveals to what use the horse would be made most of.

For what purpose, then, was the horse first used? We shall reserve until later the controversy whether chariot preceded riding or contrariwise. Undoubtedly, however, the chariot was the result of much development and experimentation. Its early history and origin can at best only be

1. The Indo-European name for horse, akva, is found among all branches of the family: AS esh, OI ech, L equus, S aśva. The word is derived from the root ak- "to hasten". See V. Hehn, Kulturpflanzen und Haustiere... Berlin, 1877, p.48. 3rd rev.ed.

surmised. Quite a few people have attempted to reconstruct the origins of the chariot. It should be remembered, however, notwithstanding the convincing arguments put forward by some, that they are all reconstructions as each author sees it. What sometimes appears as a logical progression may not have been such at all.

The forerunner of the chariot may have been the wagon. Oxen, cattle and asses served as drawers of this vehicle.² Block-wheels could have been used on the early ones.³ One theory explains that the Āryans acquired the use of wagons in Central Asia whence they had come from Mesopotamia. Cattle, according to this idea, first drew the wagons, but they were replaced by horses once these Indo-Europeans had succeeded in taming and domesticating the wild horses.⁴ Once this step was taken

it occurred to them at first, not to ride these animals, but to substitute the horse for the slower moving cattle in pulling their wagons. Once this change had been effected the evolution of the wagon to the war chariot was an easy and natural development....⁵

No indication is given of the time that this development may have taken. Nor can we be certain that such was the progression of events. Without a doubt though, the significant feature in the development of the chariot was the wheel. Without the wheel few peoples would have progressed very far.

During the second millennium there were a series of related invasions. These peoples spoke variants of the Indo-European language group. This

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2. A.Schlieben, Die Pferde des Alterthums, Neuwied, 1867, p.162. Archaeology has unearthed early representations of these, which see V.G.Childe, "The first waggons and carts from the Tigris to the Severn", PPS, xvii, 1951, pp.177ff.
3. A.Schlieben op.cit., p.154.
4. W.M.McGovern, The Early Empires of Central Asia, Chapel Hill, 1939, p.47.
5. ibid.

included Hittite in Asia Minor, Mitanni in Aramania, Kassite in Babylonia, and Vedic in north-west India. Accompanying these peoples was the horse. The horse was in fact the vehicle by which these peoples accomplished their conquests. Thus the Kassite ascendancy may very likely be seen as one of a number of interrelated movements which included the development of the new arm in the Hittite and Egyptian empires, and also the entry of the chariot and its masters into Greece.⁶

Chariot and Indo-European thus went hand in hand. Where the Indo-Europeans settled there the chariot went. One may question, as one scholar has already done,⁷ whether during their incursions into northern India the Āryans brought their chariots with them. If they did not literally take their chariots they certainly took their knowledge of them along. Steep, impossible terrain may have hindered movement by chariot but it did not cause the Āryans to forget the knowledge of the chariot maker's art. The surviving evidence indicates that the horse-drawn chariot was one of the most important items in the military equipment of the ancient world.

Of paramount importance is the wheel. It is this part that tests the craftsman's skill the most. It is the highlight of his handworking performance. As a profession that is declared as important and labelled as distinguished, the chariot-builder impressed his years of experience on the wheel.⁸ Anyone who has doubts about the tremendous skill needed to produce a perfect wagon or chariot wheel should read a rather recent work by a wagon-maker.⁹ It is no fool's trade. This is important to remember because it is easy to lapse into the old but erroneous notion

6. H.L.Lörimer, Homer and the Monuments, London, 1950, p.309.

7. See S.D.Singh, Ancient Indian Warfare, Leiden, 1965, pp.65-66.

8. W.Treue, Achse, Rad und Wagen, Munchen, 1965, p.59.

9. The book is by one George Sturt, The Wheelwright's Shop, Cambridge, 1958. It is truly a remarkable book, and provides an excellent insight into a very ancient craft.

of primitive, uncivilized Āryans who possessed little technical skill.

A simple example will show that the Āryans knew their trade well. Everything about a wooden axle and its wheels implies a fairly well-established population. Consider the following: not any timber would serve the job nor even any beech; rather, to obtain the right wood demands throwing and opening a tree at the right season, and on the right soil too.¹⁰ Did the Indo-Europeans bring a sawpit with them? Or perhaps they brought a stock of seasoning timber, or a stock of it already seasoned? Maybe they brought benches, wheel-pits, the requisite axes and handsaws as well? If they did not, then they were familiar enough with the local areas to set up their own established wheelwright and related shops. Time was needed for making a chariot. The spoked wheel was more costly than the solid wheel since its production was more complicated and demanded the competence of a skilled wheelwright.¹¹

A clear picture can be reconstructed of the Āryans' knowledge of the craft. This is an important contribution to the knowledge of the technical arts that the Āryans possessed. Their technical knowledge has regrettably been either abased, ignored or seen as so insignificant as to not deserve attention. The following will show otherwise and it is hoped that the Āryans will be seen as a people possessing considerable arts and sciences, and endowed with much wisdom. The Ṛgveda contains information that has hitherto not been acknowledged. The wheel fulfills a vital part in that storehouse.

The centre of the wheel is the hub or nave(nābhi). It is the mainstay of the wheel. The Ṛgveda refers to the nave about half a dozen times, nearly always in an analogy with something else. Though the Ṛgvedic

10. ibid.

11. L.Tarr, The History of the Carriage, London, 1969, p.50.

authors are poets , yet they seem to have been sufficiently aware of the purpose of the chariot components. Speaking about Varuṇa, the poet declares that all knowledge, especially divine knowledge, is held firmly together in Varuṇa, just like the nave holds the wheel together firmly.¹² Another verse compares the sun with a nave, although the comparison does not extend beyond their common roundness.¹³

The nave was the support of the axle as well. Hence if an unusual weight was imposed upon the chariot which was only meant to carry two occupants, the axle would overheat and break, and so too would the nave. Such, however, does not apply in the divine world. The wheel of the sun can withstand any stress; the axle never overheats; and the nave is like the sun itself: it never rolls off its course.¹⁴

Many components fit soundly together to make the chariot a sturdy and reliable vehicle. A nave must have some attachment to the axle. A lynchpin or gudgeon pin serves this purpose. An analogy proves that the poet understood this: "Bringing health, come here on your chariot, come, in order to hold fast the treasure like the lynchpin (holds securely) the nave(of the wheel)."¹⁵ The Vedic word for lynchpin is āpi-, and is directly related to anu- , "thin, narrow". This lynchpin probably fitted securely into the axle that passed through the nave. It would serve the same purpose as a cotter-pin does on small axle and wheel of today. The pin may have been outside the wheel proper. According to another verse, as everything immortal rests on the divine being Savitṛ so too does the

12. viii.41.6. yāsmin viśvāni kāvyā cakre nābhir iva śritā.

13. vi.39.4.

14. i,164.13-14. tāsya nākṣas tapyate bhūribhāraḥ samād eva na śīryate sānābhiḥ. sānemi cakram ajāram vi vāvṛita uttāmāyām....

15. y.43.8. mayobhuvā sarathā yātam arvāg gantām nidhīm dhūram ānīr na nābhim.

chariot or wheel depend on the lynchpin.¹⁶

Much can be learnt about the lynchpin. Geldner states that it not only holds fast the wheel onto the axle, but also in its elongation is a bearer of the chariot body.¹⁷ This is because the word ráthyam used here may refer to the body of the chariot. For purposes of convenience a lynchpin on the outside of the wheel through the axle would be most suitable. An interesting legend has as its basis the consequences of releasing the lynchpin .

The powerful god Indra is a warrior god. In one place he is said to war against a divine foe called Śúṣṇa, and after this event helps Kútsa in his struggle with the Sun by releasing the lynchpin.¹⁸ The two are related thus: Indra takes away the Sun's wheel and uses it to slay the demon Śúṣṇa. Indra had released the lynchpin and in this way had allowed Kútsa to win the race. There is no faster chariot than the Sun's. "Tear off the wheel of the Sun!", we read.¹⁹ And in another place we read: "The one wheel of the Sun you tear away; for Kútsa you allow the other (Kútsa's chariot) to travel safely. You smash to pieces the mouthless Dásyus with your weapon; you hurl the speechless ones to the ground."²⁰ Here the Sun's wheel, or the Sun itself, is the weapon used to smite the foes.

Next in position comes the felloe. This is the outside of the wheel, and it serves the purpose of holding the spokes onto the nave. The felloe must of necessity be very strong since this takes the impact of the thrust on the ground. Consequently most of the hymns which mention the

16. i.35.6. ānīm ná ráthyam amṛtādhi tasthur ihá bravītu yá u tác cíketat.

17. Commentary on i.35.6.

18. i.63.3. tvám śúṣṇam vrjāne prkṣá ānau yūne kútsāya dyumáte sácāhan.

19. i.174.5. prá sūras cakram vrhatād....

20. v.29.10. prānyác cakram avrhaḥ sūryasya kútsāyānyád varivo yátave 'kaḥ/ anāso dásyūñr amṛno vadhéna ní duryoná āvrṇāñ mṛhrāvācah.

felloe pray that it be firmly fixed and strong. Hence "firm be the fellies of your wheels"²¹ is a common request. Further analogies show that the felloe was to firmly hold all the spokes together: "Over all living creatures he rules as king, containing all as spokes within the felloe."²² Another analogy tells of how as Agni (fire) surrounds the gods and protects them so too does the felloe the spokes.²³

The Ṛgveda does not record the details about how fellies were made. Its main purpose is to laud the gods and everything else serves to amplify that clear goal. A brief account will, we hope, enable us to better appreciate the skill that is involved in not only making fellies but in all aspects of chariot construction. Felloe parts could vary from one to perhaps four or even more. No two felloe blocks are ever alike. A fresh problem is presented with every one. But the felloe-block "would lend its own subtle virtues to the man who knew how to humour it: with him, as with an understanding friend, it would co-operate."²⁴ Unlike spokes, there was considerable diversity in the material a felloe could be made from: ash, elm, or beech would all do fine.

Fellies differed in curve according to the diameter of the wheel and in length according to the number of spokes used. We at least know that the felloe was not single on Āryan chariots.²⁵ Thus if a wheel is say four feet high, fellies about two feet long would suffice if there were six, but if there were only five they needed to be about six inches longer to make up the full circumference. In the Greece that Homer knew the fellies varied from one to four.²⁶

21. i.38.12. sthira¹ vah santu nemayo² rāthā³ āsvāsa⁴ eṣām.

22. i.32.15., i.141.9. śed u rāja¹ kṣayati carṣanīnām² arān³ nā nemih⁴ pāri⁵ tā⁶ babhūva.

23. v.13.6., ii.5.3. agne nemir¹ arān² iva devāns³ tvām⁴ paribhūr⁵ asi.

24. George Sturt, op.cit., p.45.

25. i.38.12 says "may your fellies be secure".

26. See A.Schlieben, op.cit., p.162.

Serious consequences would result if the fellies came apart. The poets request divine aid so that this will not happen. Perhaps this is an indication that this was a problem, though too much cannot be made of this point. Nevertheless, high-speed must have put considerable strain on the fellies and severely tested the craftsmanship of the artificer. In a few verses a poet describes the parts of King Sudās' chariot just before he departs for battle. "You whose fellow is intact, is guided by your protection!"²⁷ The other two instances of this word, árisṭanemi, apply as an epithet to a very famous racehorse, Tārksya.²⁸

Finally come the spokes themselves. When considering lightness in a vehicle, every effort is made to shave away every superfluous hairs' thickness of timber in the wheels generally, and in the spokes in particular. It is necessary here "to save every possible grain of strength, while shaving ruthlessly away every grain of mere weight."²⁹ What is true for wagons of the early twentieth century apply equally so to chariots of the second millennium B.C.

The spokes are tightly fitted into both fellow and nave. The back of the spoke is where strength is wanted. The front or face does not matter so much. The holes in the nave are called khá-. They are the "bored-through holes of the wheel, in which the spokes were fitted, and which were oiled."³⁰ Thus we read in one place: "The Vṛtra-slayer pressed them together like the spokes in the navehole."³¹ Another prayer requests the naveholes to be strong : the navehole of the war chariot, the heavier chariot, and the hole in the yoke.³²

27. iii.53.17. índrah pātalyè dadatām sárītor árisṭaneme abhí nah sacasva.

28. See i.89.6 and x.178.1.

29. George Sturt, op.cit., p.95.

30. WzRV, cols.371-372.

31. viii.77.3. sám ít tñ vrtrahákhidat khé arān iva khédayā.

32. viii.91.7. khé ráthasya khé 'nasah khé yugásya satakrate.

A problem that has scarcely been treated is how the peoples of antiquity overcame friction problems. In some cases they probably did not. We are fortunate, however, to know that the Āryans did indeed oil their chariot wheels. Thus we read in one place: "Oil the navehole, convert the godless."³³ By oiling the mortices where the spokes join the nave-the naveholes- the wheel turns smoothly. This turning(vartāyā) also figuratively speaks about the turning-around or conversion of the non-believers of the Āryan faith. With what substance they used as oil no indication is given.

Whatever substance they used, it had to fulfill its prime function as a preservative against friction. If friction is cut to a minimal, smooth running is ensured and energy is saved; wear and tear is reduced; over-heating is prevented; and squeaks and groans are eliminated.³⁴ The real problem lay with the axle-bearing of a chariot. This is why the above verse occurs. Water would hardly be effective over the long term, so something of a more durable nature would be needed. In Cato we find that watery dregs(amurca) from olives were boiled down and smeared on axles and the leatherwork of harness.³⁵ Pliny, more than two centuries later, follows Cato's advice.³⁶

Animal fat seems to have been used. Pliny calls it axle-grease(axungia). He says that "the men of old used to employ it especially for greasing the axle-bearings of their vehicles, to make the wheels revolve more easily-whence its name..."³⁷ The Vedic Āryans had ample opportunity to use animal fats or oils since they featured prominently in their sacrifices. The many races and battles which required constant use of the

33. x.156.3. aṅdhī khām vartāyā paṇīm.

34. See H.A. Harris, "Lubrication in Antiquity", Greece and Rome, xxi, (April 1974), p.32.

35. Agriculture, xcvi.

36. Natural History, xv.34.

37. ibid., xxviii.141.

chariot implies that they were well-oiled.

It is principally the invention of the spoked wheel and the means of making a light body that brought the chariot preëminence as a vehicle of warfare. This is aided, of course, by the use of fast horses. This last point we shall consider shortly. Altogether there was a "revolution in the art of warfare...."³⁸

The body of the chariot is called kóśa. Piggott thinks it implies "a more or less closed vehicle."³⁹ In the Aegean and Celtic worlds it is made of wicker-work or in Egypt of leather.⁴⁰ The prayer of the Āryan poet, in addressing himself to Pūṣān's chariot, is that the wheel will not be damaged, that the box not fall away, and the tyre remain solid.⁴¹ The body is fixed on a wooden axle (ákṣa). A few verses speak of the need to firmly dovetail the axle into the nave of the wheel.⁴² Another verse, referring to time, speaks of the five-spoked wheel (a metaphor) on which all life rests. This axle never gets hot although it bears a great load. Neither does it break along with the nave.⁴³ Another prayer asks that the axle remain firm.⁴⁴ As we mentioned before, particular care is required in selecting special wood for a special part of the chariot. The axle of the Āryan chariot, for example, is made of strong Khadirá wood.⁴⁵ Other parts of the chariot consist of spandana and śiṅśāpān woods.⁴⁶

That the axles were especially subject to breaking or cracking should come as no surprise. The axles had to withstand great strain as the chariots roared across the plains or around the racing circuit. No wonder then, that the Āryan chariot's axle was made from the heartwood of a very strong tree: Acacia catechu. One poet could scarcely have emphasized more the urgency to make the axle strong when he uses the word

38. Fr. Schachermeyer, "Streitwagen und Streitwagenbild..." Anthropos, xlvii, 1951, p. 707.

39. S. Piggott, Prehistoric India, Penguin, 1950, p. 276.

40. ibid.

41. vi. 54. 3. pūṣnás cakráṁ ná riṣyati ná kósó 'va padyate/ nó asya vyathate pavíh.

42. i. 30. 14, 15. ṛnór ákṣam ná cakryòh, ṛnór akṣam ná sácībhih.

for strong-vīla- three times in one place.⁴⁷ The axles of the Homeric chariots are also of wood, though some are also covered with iron.⁴⁸ The purpose once more is to ensure the maximum strength for the support not only of the wheels but also of the two occupants! Breaking of the axle is not rare,⁴⁹ and we find it happened to Caesar's triumph-chariot.⁵⁰

The next part of the chariot is the pole and yoke. The pole is fixed to the axle by means of leather thongs.⁵¹ The homeric chariot had two cheek pieces (furca) by which the pole was fixed and made steady to the axle.⁵² The pole (or temo) was inserted into the axle.⁵³ The Vedic chariot is joined firmly together by the leather straps while the yoke is fastened to the pole by a peg.⁵⁴ In the homeric chariot this hole is called a krikos through which a peg or estor is fastened.⁵⁵

The yoke is made of wood, and in Roman times is smooth and varnished,⁵⁶ and often gracefully decorated.⁵⁷ The pole served a number of purposes: the drawing of the chariot; as a braking action; as a control or lever or steer; and for balance.⁵⁸ The yoke was also bound fast to the pole besides the peg (krikos) which firmly joined them together. The famous gordian knot was used to tie these two together: the purpose was to make the knot impossible to undo. Alexander, however, cut the knot with his sword.⁵⁹

Extending from the yoke is the harness. The harness consists of collar,

43. i.164.13. tásya náḁṣas tapyate bhūribhārah sanād evá ná síryate sánābhih.

44. iii.53.17. sthiraú gāvau bhavatām vīlúr áḁso....

45. iii.53.9.

46. iii.53.19. abhí vyayasva khadirásya sāram ójo dhehi spandane sínsāpāyam.

47. iii.53.19. áḁsa vīlo vīlita vīlāyasva....

48. Illiad v.838.

49. Ovid, Metamorphosis, xv.523.

50. Suetonius, Caesar, 37.

51. vi. 47.26-27. góbhih sánmaddho asi vīlāyasvāsthātā te jayatu jétvāni.

52. R.Berenger, History and Art of Horsemanship, London, p.274. vol.1.

53. Ovid, Metamorphosis, iii. Illic fraena jacent, illic temone revulsus, axis

girth, subjugia(Xugodesmos) and yoke, and finally the reins. The throat and girth harness is used invariably throughout all antiquity in Sumer, Chaldea, Egypt, Greece and Rome.⁶⁰ This type of harness finally died out in the Middle Ages in Western Europe. And "it was the same everywhere, in every ancient realm and culture, equally inefficient."⁶¹ The one people who had a different type of harness according to one author were the Chinese. They employed the breast-strap harness or the postillion harness, where the strap in front bears right upon the shoulder so that the tractive force is fully exerted. The trachea is not compressed.⁶²

Information about the type of harness from the Rgveda is difficult to gather. The references to "well-harnessed" horses would seem to indicate that few problems were encountered. There is at least no mention of the horses gasping for breath, nor does one find in the hymn of the horse sacrifice apology for choking the horse by the use of this harness.⁶³ The absence of any reference does not of course mean that it was not used, neither is there any firm evidence for its use. Even the type of harness used shows that many aspects of the Āryans' daily life are not easy to find out.

Not only in the Rgveda but also among other Indo-European tribes we find the chariot, horses and occupants heroized. Why should this be so? What role of importance did the chariot play that it should receive unbounded praise? To understand the answer to these questions we should remember the implications that this new mode of warfare had. In Egypt, for instance, the chariot was introduced by the Hyksos. It transformed warfare as much as motoring transformed life in our times,

54. S.D.Singh, op.cit., p.28.

55. See Appendix C. For a full account see Illiad,xxiv.265-274.

56. Cato, Agriculture, 98.

57. Curtius, iii.3. A.Schlieben, op.cit., p.157.

58. W.Nagel, Der mesopotamische Streitwagen....Berlin, 1966, p.4.

59. Curtius Rufus, iii.1., Arrian, Anabasis, ii.3.7., Justin, ii.7.

60. J.Needham, ed., Clerks and Craftsmen...Cambridge, 1970, p. 35.

61. J.Needham, Science and Civilisation...Cambridge, p.304, vol.iv.

and set the war organization on a new track, and changed equally social and scientific life of the people.⁶⁴ The Hyksos were an Asiatic tribe who ruled Egypt in the seventeenth century B.C., and the Pharaoh Kamose paved the way for their expulsion. In the beginning of the sixteenth century mention is made of the famous "horses of Hyksos."⁶⁵

When we cross to the land of the two rivers we find an equally remarkable development. The Mesopotamian chariot was used in its original form throughout the whole of the third millennium. However, it is only during the first half of the second millennium that the chariot undergoes a revolutionary development where it appears as an effective mobile-firing platform. This came about when the two great problems of mobility and firepower were mastered.⁶⁶ The second millennium must stand out prominently as the time when the pinnacle of chariotry was attained. The light, two-wheeled spoked chariot, drawn by two highly trained horses made possible this development.⁶⁷ Is it coincidental that this development occurs at the same time as the invasions of warrior nations speaking related Indo-European languages? Julius von Negelein has no doubt that the Āryans or Indo-Europeans (in the early part of this century they were thought of as the same) were responsible for this development in chariotry.⁶⁸ It may well be, then, that the invention of the spoked wheel and the chariot itself may have preceded rather than followed the entry of the horse-taming tribes into southwestern Asia.⁶⁹ We should look to that area commonly called Scythia as the departure point for the Indo-European peoples.

62. J.Needham, Clerks..op.cit.

63. i.163. As one might expect to find since the author apologizes for excessive urging but not for choking the animal.

64. W.Treue, op.cit., p.89., Y.Yadin, The Art of Warfare in Biblical Lands, 1963, p.86. vol.i.

65. ibid., p.75. Pharaoh Kamose was the last Pharaoh of the xviiith Dynasty.

66. ibid., pp.37,39.

67. T.G.E.Powell, "Some Implications of Chariotry", in I.Foster and L. Adcock, eds., Culture and Environment, London, 1963, p.154.

The Kassites overthrew Babylon. While their language is not Indo-European, the names of their leaders certainly are. This Kassite ascendancy (to be dated about the late seventeenth or early sixteenth century) may well be regarded "as one of a group of interrelated movements which included the development of the new arm in the Hittite and Egyptian empires and also the entry of the chariot and its masters into Greece."⁷⁰ This is also the time when the Hittites embarked on their conquests and won for themselves a name synonymous with terror. The reason for their victories is not difficult to trace. It is due in large measure to the possession of iron weapons and war chariots.⁷¹ Indeed, the Hittites have been credited with the initial development and exploitation of the formidable war chariot, made largely of iron.⁷²

The Āryans who came and conquered north-western India brought along with them the formidable light-weight chariot. How did they cross the Hindukush mountains? The question has been considered before.⁷³ Enormous difficulties would have beset any attempts to drive the chariots over steep and rugged terrain, even though the chariots were in all probability very light. The Āryans could have dismantled and carried them on horseback,⁷⁴ or perhaps on large drays. Certainly the Āryan chariots appear as "startling innovations."⁷⁵, and for their ancestry we should turn our eyes to Western Asia where it seems to have been developed and perfected.

68. Julius von Negelein, Das Pferd in arischen Alterthum, Königsberg, 1903, p.22. vol.1.

69. J.K.Anderson, Ancient Greek Horsemanship, Berkeley, 1961, passim.

70. H.L.Lorimer, Homer and the Monuments, London, 1950, p.309.

71. D.A.Fisher, The Epic of Steel, New York, 1963, pp.10-11.

72. ibid. cf. Judges i.19., iv.3.

73. See S.D.Singh, op.cit., p.65.

74. ibid.

75. S.Piggott, op.cit., p.273.

Why did the chariot become the fear of those who did not possess it and the treasure of those who did? Effective mobility of the chariot (which heretofore had been limited) was achieved with the discovery of the light spoked wheel⁷⁶ and a light body. This bears repetition because it is extremely important. Accompanying these changes was the shifting of the axle to the rear to give the chariot greater manoeuvrability.⁷ These advantages were further strengthened by the use of fast horses especially bred for the purpose in place of the former onagers and draught animals. Strengthened firepower was provided by the composite bow. The rear positioning of the axle is an important step in both warfare and racing. It enabled the chariot to be completely manoeuvrable even on sharp turns. In combination with a light body and light wheels, the perfect chariot resulted: stable, fast and highly manoeuvrable.⁷⁸ When these advantages were combined the foe faced a powerful force. To be of real advantage, however, the chariot attack had to be en masse at high speeds. The thundering of masses of chariots over the plains, aided by shrieking wheels and the snortings and neighings of the horses, gave victory to its possessors countless numbers of times. Lance and bow added to this deadly combination.⁷⁹

Like so many peoples of antiquity, the Āryans trusted in their chariots. Like their leader who wields the thunderbolt proudly from his chariot, the Āryans are only concerned with "that which speeds his might in conflicts, like wind borne onward by the clouds that thunder."⁸⁰ Under Indra's supreme control are "all horses, chariots, villages, and cattle".⁸¹ Indra gives victory with the troops and with the chariot.⁸²

76. By making the spokes lighter and stronger more could be added. This would increase the strength of the wheel. Perhaps the reason why earlier chariots had only four spokes is because any more would have added a great more weight. After experimentation, however, with the use of lighter wheels it was found that the strength of the wheel increases, not diminishes.

77. Y.Yadin, op.cit., pp.39-40.

78. ibid., p.5.

79. P.Greenhalgh, Early Greek Warfare, Cambridge, 1973, pp.1-2.

Without a trusting horse to draw the chariot unforeseen dangers await. This is why constant reference is made to the horses' major role in the battle and the trust the driver and companion have in them:

Horses whose hoofs rain dust are neighing
loudly, yoked to the chariots, showing
forth their vigour.
With their forefeet descending on the
foemen, they, never flinching, trample
and destroy them.⁸³

Indra is undoubtedly the foremost charioteer. He remains a bulwark and constant inspiration to those who fight for their people in war or contest against one another in the chariot race. No one surpasses Indra in strength, nor indeed are there any equals to his faithful companions, the bay steeds.⁸⁴ The two bay steeds receive many titles of praise that befits the duties they perform. They, like Indra, are impetuous and relish in battles, are well-groomed, well-yoked, faithful as the sun's uprising, instant to obey, elaborately adorned, and swifter than any beast.⁸⁵ They strain at the leather bridle, snorting and swerving on their way.⁸⁶ With their long, flowing manes they pursue the coursers of the Sun.⁸⁷ Indra is the hero of the Āryan peoples. His position is incontestable.

80. iv.17.12. yó asya súṣmam muhukaír iyarti vāto ná jūtá stanáyad**h**ir ab**h**raí**h**.

81. ii.12.7. yásyáśvāsa**h** pradísi yásya gāvo yásya grāmā yásya víśve ráthāsa**h**/ yá**h** sūryam yá uśásam jajāna yó apāmi netā.

82. i.100.10. sá grāmeb**h**i**h** sánitā sá rátheb**h**ir vidé víśvāb**h**i**h** kṛṣṭib**h**ir nv adyā.

83. vi.75.7. tīvrān ghóśān kṛvate vīśapānayo ásvā rátheb**h**i**h** sahā vājáyanta**h**/ avakrāmanta**h** prápadaír amitrān kṣinānti sátrūn ānāvayayanta**h**.

84. i.84.6., i.81.3.

85. x.105.2,4,5., vii.29.1,2., etc.

86. x.105.2,4.

87. x.105.2,4-5.

One title given to Indra shows how important the Āryans viewed this dominion. This title is "lord of bay steeds". Hári-, by which these horses are known, means "fire-coloured".⁸⁸ This is the god who over'ords all battles, who gives victory to the Āryans, and utterly vanquishes their enemies. The R̥gveda is, after all, a book about contests- the contests of the Āryans. One can easily visualize the bloody savagery, the clanging spears, helmets and shield; the earth shaking beneath the fast-rolling chariot wheel, which is used by Indra to slay the foes, signifying what important role this vehicle plays in early warfare; the loud snortings of the horses, the soundings of the trumpets, and the cries of agony and triumph.

Indra was an umbrella of protection to all those who cried out to him. Thus in the battle we read: "Indra! do you protect our chariot that mingles foremost in the fights, that bears its part in every fray, invincible and seeking spoil."⁸⁹ Indra's power to animate is such that even a slow steed can be vitalized, and what was formerly sluggishness personified now turns into fleet of foot.⁹⁰ If Indra can produce a transformation like that, it is no great wonder that he can cause victory to go either way.

In their chariot racing(which seems to have occupied men's minds during times of peace), men would call on Indra. The poet credits Indra with directly animating the horses. This shows how close Indra is to horses and how much he understands them. Equally so, do horses know and obey him. Appropriately enough, therefore, Indra bears a title that reveals his interest and character.

Be it on the racing track or on the battle field, Indra can change the mood of horses. In one brilliant description of the chariot attack

88. WzRV, col.1648.

89. v.35.7. asmākam indra duṣṭāram puroyāvānam ājīṣu/ sayāvānam dhāne-dhane vājayāntam avā rātham.

90. vi.45.1. yā ānayat parāvataḥ sunīti turvāsam yādum/ indraḥ sā no yuvā sakhā.

in battle, Indra urges horses to speed over the "uneven road and on a toilsome path". They, in turn, respond "to the urging call ...like birds attracted to the bait."⁹¹ Indra's horses are instrumental, in fact indispensable, to the outcome of any battle.⁹²

Being a being of perfection, Indra's two instruments of war, the bay steeds, are also of perfect craftsmanship. The divine craftsmen, the Ṛbhús, formed Indra's horses.⁹³ In common with other members of the god-class they are called sun-eyed.⁹⁴ This deification of horses shows the extraordinary respect the Āryans bestowed on these animals, culminating in the despatch from this life to the gods by sacrifice.

It is not, however, the horses alone who are perfect examples of divine workmanship. We have already cited instances where according to the poets the axle of the divine chariot does not smoke nor does the wheel wear though it revolves through all periods of time. Everything divine is perfect and highlights the imperfection of human endeavours. Such a religion evokes daring and courage which takes little account of human life since there awaits the believer a better and brighter life after this one. Yet the poets have only praise for the great skill the Āryan chariot builders exhibit, which along with other peoples of related speech, is quite a wonder.

Chariot building, as we have seen, is no small matter. The Ṛbhús are credited with building the chariot of the Ásvins- a pair of divine beings who drive a fabulous three-wheeled chariot. The reputation of the Ṛbhús as skilled wheelwrights was well-known among the Ṛgvedic Āryan tribes.⁹⁵

91. vi.46.13-14. yád indra sárge árvataś codáyāse mahādhané/ asamané ádhvani vṛjiné pathí śyenāñ iva śravasyataḥ.

92. v.33.2.

93. i.20.2,3. yá índrāya vacoyújā tatakṣur manasā hárī.

94. i.16.1. índra tvā sūracakṣasaḥ.

95. See ix.21.6., viii.75.5.

Equally endowed with manual cunning are the gods called Bhṛguṣ. Two verses compare the skill of human worshippers with the skill of the Bhṛguṣ. One declares that as the worshippers have laid a secure foundation with Indra so do the Bhṛguṣ build a worthy, secure chariot.⁹⁶ The other verse of friendship states that the worshippers have worked out a hymn of praise for the Aśvins just as the Bhṛguṣ have worked on a chariot.⁹⁷ The R̥gvedic word for work here means the whole array of tasks involved in fashioning a chariot as in fashioning a hymn: from the first job of hewing out the rough form to the final finishing touches which includes polishing, ornamenting and revision.⁹⁸ What the poet means to convey to his listener is that he tries his best to produce his best product fit for divine presentation. In like manner the Bhṛguṣ toil long hours to produce a fine chariot. The end is that both will be proud of their productions since it represents the culmination of long hours backed up by experience. Those who handle it in the future will acknowledge the artistry of the creators.

The number of wheels of a vehicle suits the purpose of the vehicle. The two-wheeled chariot is the fighting chariot, which includes the scythed chariot,⁹⁹ and the racing chariot. The four-wheeled vehicle is the goods chariot, state or travelling chariot, and equivalent to the covered wagon.¹⁰⁰ The Āryans employed both. The light two-wheeled chariot is called rātha, while the heavy chariot, often used for ceremonial purposes, is called anas.¹⁰¹ These two vehicles are mentioned together in three verses so that there can be no doubt about the different uses to which each is put.¹⁰² The chariot of dawn is of the

96. iv.16.20.

97. x.39.14. cf.i.9.6., vi.37.3.

98. See WzRV, col.510 under takṣ-.

99. The fellies of the Marut's chariot have knives . This can scarcely be anything but a scythed chariot, whether imaginary or real. i.166.10.

100. A.Schlieben, op.cit., p.161.

101. WzRV, col.54.

102. iii.33.9,10., viii.91.7.

heavy type. It features in a myth which shows the war god Indra shattering dawn's chariot by hurling his thunderbolt at it.¹⁰³

That the Āryans possessed various types of vehicles for different uses shows that vehicle manufacture was diverse. There is mentioned an eight-seated vehicle, which is a vehicle of the sacrifice, particularly the Soma sacrifice.¹⁰⁴ An unusual vehicle is the Asvins' chariot. This has three seats, three parts and three wheels.¹⁰⁵ In all likelihood this must be taken as an example of poetical licence.¹⁰⁶ The Asvins win the Sun's daughter Sūryā as a bride and they are therefore inseparable. The agreeableness of threeness extends to everything that these three beings do together, and every part of the chariot is not excepted.

Throughout ancient history the number of spokes on the chariot changes. Homer gives to the chariots of the old Grecian heroes wheels with eight spokes.¹⁰⁷ According to one inquirer, the chariot of Greece from the sixteenth century to the classic age retained two primitive features: the four-spoked wheel and the central position of the axle.¹⁰⁸ In the ruins of Nineveh wheels with eight spokes are found.¹⁰⁹ In the R̥gveda the number of spokes that the normal chariot wheel possessed is not certain. There are references to the spokes of the wheel of time but this is merely a metaphor. One verse speaks of the twelve-spoked wheel of time which turns ceaselessly through the heavens. This refers to the twelve months.¹¹⁰ Another verse refers to a six-spoked chariot wheel.¹¹¹

The familiar two-wheeled chariot is put to a variety of uses. In the

103. ii.15.6., iv.30.8-11., x.73.6., x.138.5.

104. x.53.7. See Geldner's note on this verse, p.216, note 7.

105. i.116.7., 118.2., 157.3., 183.1., iv.36.1., x.41.1.

106. See S.D.Singh, *op.cit.*, p.27, note 3, and references there.

107. Diodorus Siculus, xviii.27.

108. A.Schlieben, *op.cit.*, p.162.

109. *ibid.*

110. i.164.11. See Geldner's comments on this verse.

111. i.164.12. Leopold von Schröder, *Arische Religion*, Leipzig, 1916, II, p.16

R̥gveda at least, the chariot features prominently as a vehicle of war. What is often forgotten is that the chariot is also important in the race. Among the Indo-Europeans chariot racing became an important sport. Here on the track the drivers had the opportunity to prove their worth. In the R̥gveda racing is a favourite pasttime. For a moment war is forgotten, and the contestants line up to wage the contest for the proffered prizes.

If we can form an estimate of the importance of the subject by the frequency it appears, then chariot racing ranks high. One author describes it as an "important and favourite sport."¹¹² It may even go back to the common heritage that the various branches shared, since chariot racing is found in ancient India, Greece, and Rome.¹¹³ Chariot racing provided not only entertainment but also a reprieve from the exigencies of war.

In warfare the horse draws the chariot of his master in to the thick of the fight. No less esteemed is his role in the chariot race, for here too does the horse bear the hero to honour and glory. In Rome, as in Constantinople in years ahead, the most popular of all displays was chariot racing in the Circus "with 'star' horses , many if not all of which had personal names that were shouted by the onlookers....."¹¹⁴ The R̥gveda also speaks of horses that were the darlings of the spectators. These few horses are in fact so highly prized that after death they become deified and take the role of aides to earthly horses.

The R̥gveda abounds with references to the staging of the chariot race. The word ājī- denotes a "race" in the first instance, and secondarily, a battle.¹¹⁵ The race-track was probably

112. Leopold von Schröder, AR, II, p.166.

113. ibid., p.168.

114. J.M.C.Toynbee, Animals in Roman Life and Art, London, 1973, p.17., Pliny, Epistolae, ix.6.2:equos illos, quos procul noscitant, quorum clamitant nomina.

115. WzRV, col.173.

quasi-circular and at one point there was a special mark (kārṣman) that answers to the present-day stopping-post of the race track.¹¹⁶ Upon the competitors passing the mark, prizes (dhana) were given out, and judging from the urgent requests to the gods for favour, the prizes must have been considerable.¹¹⁷

An interesting legend revolves around the chariot race. The twin horsemen, the Ásvins, contest a race for a big prize: the marriage of Sūryā. Interestingly enough, the normal battle and racing chariot was built to carry only two, and the Ásvins are two. They are two but they do everything as if they are one. One poet mentions the problem about accomodating Sūryā after the Ásvins won the chariot race. Three would cause the chariot to collapse.¹¹⁸ Through their swift horses the Ásvins win the race and receive Sūryā as their prize. This event became a favourite story amongst the Āryan population, for a poet asks, "which chariot do they call the swift one with the impetuous horses, which the daughter of the sun chooses?"¹¹⁹

Another legend speaks of Étaśa in a race with the sun's horses. The word étaśa has several meanings. It can mean the horse, in particular the horse of the sun, and is also the epithet of a man. Its primary meaning, however, is "racing".¹²⁰ Thus Étaśa contends with the sun in horsemanship,¹²¹ and aided by Indra wins the prize of the race.¹²² As the race of the Ásvins became a byword amongst the Āryan tribes, so too did the race in which Étaśa contested.¹²³

116. ibid., col.324.

117. ibid., col.654.

118. See the marriage hymn, x.85.14-16.

119. iv.43.2.

120. WzRV, col.299.

121. i.61.15., iv.30.6.

122. i.54.6. tvám rátham étaśam ketvye dhāne tvám puro navatīm dambhayo náva.

123. viii.50.9. yáthā práva étaśam kṛtvye dhāne yáthā vásam dásavraje.

Both the *Asvins*' and *Étaśa*'s success in the race illustrates how important in the minds of the poets is the tradition of racing. Indra and all of the gods that the poet can think of are called upon to aid the horse and charioteer.¹²⁴ In one place the "noble ones" or *Vasus* are mentioned. These, like the racers *Étaśa*, *Asvins*, *Dadhikrā* and *Tārksya*, are called upon to aid the then present participants in the race. They are the divinely-worshipped racehorses¹²⁵ of kings who have long since gone. Even the river *Sīndhu* is compared with a rushing horse in the race.¹²⁶

This Indo-European fondness for horse racing is evidenced in another text. This is the horse-text of *Kikkuli* of *Mitanni*. This book gives detailed day-by-day instructions for bringing chariot horses into peak condition over a course of several months.¹²⁷ There can be little doubt that the text is a preparation text for racing.¹²⁸ The language is definitely related to Vedic, as for instance *aśsu* is the equivalent of *asva*, and the numbers from one to seven are almost identical.¹²⁹ The care bestowed on the animals with a deep concern for their progress is shared also by the *Ṛgveda*. Both texts show that the Indo-Europeans were not only 'addicted' to horses but also handled them with great care and thoughtfulness.

The chariot race was a great spectacle. It was a favourite of the Greeks and Romans wherever they went.¹³⁰ Truly, as one early horseman

124. vi.46.1., ii.31.,vi.67.1.

125. See x.74.1., vii.38.7-8., vii.40.6., x.56.4., x.64.6.

126. x.75.2. prá te 'radad varuṇo yátave pathah síndho yád vājān abhy ádravas tvám.

127. R.K.Anderson, *op.cit.*, p.5.

128. H.A.Potratz, *Das Pferd in der Frühzeit*, Rostock, 1938, p.15.

129. A.Kammenhuber, *Hippologia Hethica*, Wiesbaden, 1961, *passim.*, G.Hermes, "Das gezähmte Pferd im alten Orient", *Anthropos*, xxxi, p.393.

130. W.M.McGovern *The early empires of central Asia*, Chapel Hill, 1939, p.46.

remarked about the chariot race: "and what a scene of unavoidable, inextricable wreck must all these chariots rushing together, in converging lines, have made."¹³¹ The R̥gveda mentions the rapid turnings of the horse and chariot that were made on the track.¹³² This is reminiscent of the homeric description of the "advancing and retreating of the chariots, and those sudden rapid wheelings to the right or left."¹³³ The brisk ride for the occupants in the race must have taken much courage, for in one passage a poet makes a charioteer speak of the similar effect of the soma juice and the chariot ride: both made him rise to not inconsiderable heights.¹³⁴ Another verse speaks of the "rattling chariot."¹³⁵

The dangers that presented themselves in the chariot race seemed only to add to the general excitement and chaos. In ancient Rome there were perhaps as many as fifty races in a day's programme, and each chariot would have been used several times each day. The build-up of heat in the bearings must have been considerable. When, therefore, Horace speaks of the "turning-post being narrowly missed by the glowing wheels", he was probably using the word fervidis in a much more literal sense than has at times been supposed.¹³⁶

Virgil also speaks of this danger. He remarks on King Erichthonius' chariot:

131. R. Berenger, op.cit., p.290.

132. raghú-vartani-, see viii.9.8., ix.81.2.

133. Iliad, viii.107., xxiii.306.

134. x.119.3. un mā pītā ayañsata rátham ásvā ivāśāvah.

135. v.10.5. párijmāno ná vidyútaḥ svānó rátho ná vājayuh.

136. H.A.Harris, op.cit., p.34.

Bold Ericthonius first four coursers yok'd
 And urg'd the chariot as the axle smok'd.¹³⁷

Possibly attendants were on the side of the track to throw water on the chariots as they blazed by.¹³⁸ The whole event must have been as amusing as it was dangerous and exciting.

Although chariot racing was a popular pasttime, ownership and the racing of horses was invariably the privilege of a class or caste. Horses and chariots were expensive, as must have been their repair. The mass production and maintenance of chariotry reveals a complex technology that required the collaboration of various bodies of professionals and a centralized, bureaucratic administration. The latter would need to collect and control raw materials, organize the work of the many specialized craftsmen, and distribute the new or repaired chariots.¹³⁹ This would have cost money. When we read of offerings of cattle and horses, they are invariably the offerings of the nobles, princes or kings. The priests must also have been reasonably well-to-do for they received the offerings!

The ordinary soldier or agriculturist could scarcely afford to maintain a horse or a horse and chariot. The horse became the symbol of the aristocracy or the palace-type of society in Crete.¹⁴⁰ The horse itself speaks of its high position in homeric Greece:

without me neither king nor government
 nor princes race through the streets...
 next to the king my box is placed.¹⁴¹

While cattle are the chief domestic animal of the farmer and herdsman,

137. B.Tozer, The Horse in History, London, 1908, p.5.

138. C.Daremborg and E.Saglio, Dictionnaire, article cirque.

139. P.Greenhalgh, Early Greek Warfare, Cambridge, 1973, p.12.

140. ibid., p.43.

141. E.Cassin, Problemes de la Guerre en Grece Ancienne, p.300, in ibid.

the horse may well be said to be the chief animal of the aristocracy. He is thus highly esteemed by the warrior whom he serves on his campaigns as friend and companion.¹⁴² In far-flung Egypt, records of Thuthmoses III (about 1483 B.C.) make reference to the aristocracy of the maryannu, the chariot-warrior bands of the Mitani ruling in the land of the Naharina.¹⁴³

Although, therefore, the horse-drawn chariot was a vital piece of equipment in the Indo-European world, it was really because of this importance that it became a privileged part of society. It was no easy life for the charioteer, and the privileges were probably just recompense for the services he rendered to the tribe. At the same time, those unable to afford either horse or chariot were not exempt from military service, for the Rgveda does speak of troops and companies of soldiers.¹⁴⁴

The vehicle that set warfare on a new footing was a major technical achievement and a highlight of man's ingenuity. The full impact of this chariot may be visualized by reading the Rgveda. The vehicle that was produced through "manual cunning"¹⁴⁵ meant speeds could be attained that were hitherto unattainable. Distances were not so great a problem now, and the two advantages of lightness and strength were best attained during this second millennium.

For a large part of mankind's history animal power reigned supreme. Few moments indeed can compare with the unrivalled position of the horse in the early period of the Indo-European peoples. As drawer of the chariot the horse achieved fame that still echoes in the ancient records of these and other peoples. For although the

142. W.Geiger, Civilization of the Eastern Iranians, London, 1885, I, p.174.

143. N.R. Banerjee, The Iron Age in India, Delhi, 1965, p.122.

144. v.53.11. S.D.Singh, op.cit., pp.7ff.

145. iv.2.14.

Aryans, the Indo-European peoples in general, and the horsees which made them a name, are long since vanished, the memory of these peoples' dependence upon horse-power will pulsate through all ages.

Chapter III

HORSE TRAINING, BREAKING AND TRAPPINGS

The era of the dominance of the horse as a transport animal has gone. It is unlikely that it will ever return again. For a brief period in the early history of mankind, however, it enjoyed first place among man's domestic fauna. Undoubtedly it is the noblest of all the creatures that man has subdued to his will. Yet man's relationship with the horse did not come from nothing. To establish a friendship required many hours of patient training and handling. Once this was done, there was the question of what use the horse would be put to. The Indo-European, and especially the Āryan, peoples furnish us with details and information that may be surprising and unrealized before. What is certain is that these peoples emerge as specialists in many areas of horse-lore.

Without a doubt, the Indo-Europeans' association with the horse is often believed to begin and end with the chariot. The idea that they knew and practised riding has not received much support. Chariot and horse have predominated discussion about the horse in the Indo-European world. Did the Āryans know riding? Did riding precede chariotry or contrariwise?

The answer to the first question is yes. Not a few inquirers on the subject in the past, however, would say that the contrary is true. One researcher on the ancient animal world says that the "Rigveda does not know horsemanship. Without a doubt it came together with horses from Assyria into the land of the five rivers."¹ Another researcher speaks of the "absence of the horse-warrior in the Rigveda."²

To say that riding was subordinate to driving is correct. The majority of verses of the R̥gveda that deal with the horse usually connect it with

1. O.Keller, Die antike Tierwelt, Hildesheim, 1909, I, p.223.

2. J.Wiesner, "Reiter und Ritter im ältesten Rom", Klio, xxxvi, 1943, p85.

chariot driving. This is not the same as saying that the Āryans did not know riding. There are several verses that refer to riding in the Ṛgveda.

In one instance there is a vision recorded. Śyāvāśva ("he who has brown horses") sees the Maruts coming from heaven. He asks them:

Where are your horses, where (are) the
reins? How was it possible for you to
come here? (Where is) the saddle on the back
(of the horse); the bridle in the nostril
(of the horse)?³

Indra is credited with being the first to mount the horse.⁴ The word "to mount" means "climb onto", and can either mean climb onto the chariot or the horse. In each case the context is straightforward: where chariot occurs the person climbs onto the chariot, where horse occurs the person mounts the horse. There is no chance of mistaking what is meant.

Indra performs marvellous deeds through his bay steeds, the hāris. While for the most part they draw Indra's chariot there is reference to Indra mounting his bays. Thus Indra "mounts the flying (steeds), the best flyers."⁵ And in another place Indra "mounts the bays like a marksman (mounts) the firing platform".⁶ The only problem one has to face here is how does Indra mount two horses? The poets do not question Indra's ability to achieve this feat and therefore do not elaborate. The important point, of course, is that here there is evidence of horse riding.

In the first sacrificial hymn (i.162.) of the Ṛgveda the sacrificer addresses the horse. He tells the horse that if a rider had overexerted or spurred the horse on excessively, he restored to the horse through this offering a reward.⁷ Geldner says that this verse can only refer to the

3. v.61.2. kvā va 'śvāḥ kvābhīśavaḥ kathām śeka kathā yaya/ prsthé sádo nasór yamaḥ. cf. S.D. Singh, Ancient Indian Warfare, Leiden, 1965, p.57, says that this "proves beyond doubt the use of cavalry in war."

4. i.163.2,9.

5. i.51.11. ...índro vañkū vañkutárādhi tiṣṭhati.

6. vi.20.9. tiṣṭhad dhārī ádhy ásteva gárte....

7. i.162.17.

rider.⁸

There is yet further proof that the Āryans rode horses. In their many raids on neighbouring tribes surprise on horseback would have been much easier than chariot raids, particularly if cattle had to be rounded up and difficult terrain had to be crossed. The words árvato junīmási refer to the urging forward of the horses and not to the chariot-yoked horses.⁹ When raids (bhára-) were undertaken, the ridden horse would have proved invaluable. Thus Dadhikrā is probably a representative of the ridden horse used in cattle raids.¹⁰ That cattle raids comprised many of the Āryan battles is proved by the word gáviṣṭa meaning a fight.¹¹

To say, therefore, that the Āryans did not ride horses is to misunderstand the society of the early Āryans in north-western India.

What of the other Indo-European peoples? Did they use the horse for riding, or were they confined to the chariot? The people called Scythians of old and later times lived on their wagons and horses.¹² The Scythian horses were very swift.¹³ These people were so accustomed to riding in fact that they were invariably, as an early traveller put it, "utterly hopeless on foot."¹⁴

As it is true for the Āryans, so too have the ancient Greeks been believed to have been devoted to horse-drawn chariots. They were well acquainted with the horse, but hardly ever used them for riding.¹⁵ An early inquirer after horsemanship does, however, believe that riding was well known in Homer's time, otherwise he would not have alluded to it.¹⁶

8. „Es könnte aber auch der Reiter gemeint sein." Comment on i.162.17.

9. ix.79.2. O.H.de A. Wijesekera, "Some Prehistoric Survivals in the Rigveda", Indologen Tagung, 1959, p.236. prá no dhanvantv índavo madacyúto dhánā vā yébhír árvato junīmási.

10. iv.38.5.

11. S.D.Singh, op.cit.

12. See Pausanias, viii.43.3., Herodotus, iv.46. The latter says, "... living, as the Scythians do, in waggons which they take with them wherever they go, accustomed, one and all, to fight on horseback with bows and arrows, and dependent for their food not upon agriculture but upon their cattle...." cf. Ammianis Marcellinus, xxxi.2.10,17.

Following on the heels(or hoofs one might almost say) of whether the horse was ridden, is another controversy. This is whether riding preceded chariotry or contrariwise. One inquirer has no doubts that driving preceded riding since the designation for riding comes from driving.¹⁷ Thus the Celtic reido, the Old High German ritan, Old Nordic riða, Anglo-Saxon ridan all mean originally "to be propelled"; then came the meaning "to ride", and likewise the Iranian rathaeštar "rider" meant originally "chariot driver".¹⁸ Another writer declares that "riding has nowhere been shown to precede the driving of horses in antiquity."¹⁹ He suggests that chariots were used in China before cavalry.²⁰ Furthermore, the fact that the cult of the chariot predominates is cited as evidence that this has always found first place in the Indo-European world.²¹

The chariot has thus been viewed as far surpassing in importance and origin the ridden horse. During the eighteenth century the controversy raged over which came first: whether the horse was first ridden or driven.²² The second millennium may well be called the era of chariotry for it was then that the chariot was perfected. This has occupied so great a place in the history of that era that the other use of the horse, namely, for riding, has been virtually forgotten. The ridden horse has even been

13. Herodotus, iv.134.

14. De Hell, Travels, pp.243ff. in H.Rawlinson, Herodotus, London, 1862, p.90, note 9., Zosimus, Historias neas, San Antonio, 1967, iv.20.

15. W.M.Mc Govern, The early empires of central Asia, Chapel Hill, 1939, p.46.

16. Richard Berenger, The History and Art of Horsemanship, London, 1771, I, p.30., Illiad xv, Odyssey v.

17. J.Wisener, op.cit., p.83.

18. ibid.

19. G.Clark, "Horses and Batttle-Axes," Antiquity, xv, p.54.

20. ibid., cf.H.G.Creel, The Birth of China, London, 1936, p.149.

21. J.Wiesner, op.cit., p.83.

22. R.Berenger, op.cit., II, p.4.

thought of as non-existing because of the pinnacle of the chariot era. In that era the horse was ridden and it formed a very important part in the lives of the Indo-European speaking peoples. A bright mind of the eighteenth century appreciated that horse riding was just as important but it was overshadowed by chariotry because of the latter's incredible rapid development. For he says,

it does not follow, that the art
of riding and dressing horses, in
its various branches, for battle, hunting,
or exhibitions of pomp and pleasure,
was not known before that memorable aera.²³

This "memorable aera" also witnessed great developments in the art of horsemanship. In the Indo-European world horsemanship "must have been studied and cultivated with care and attention."²⁴ Horsemanship is the art of riding and of training and managing horses. To the Indo-European peoples we must look as masters of the horse and not only as perfecters of the chariot. All evidence shows an exceptional knowledge of horsemanship, and this is especially evident amongst the Āryans.

A horse has to be broken in. The art of remoulding a horse that is not used to man to one that accepts him takes time. And to transform an intemperate wild horse to one that will be ridden is "no small matter!"²⁵ It could well be that the knowledge of training and taming the horse came about before the separation of the Indo-European tribes. The name for the horse has a common stem, thus Vedic asva, Persian aspa, Lithuanian aszwa.²⁶ Breasted thinks that North or Asia Minor is the area where the Indo-Europeans had tamed or domesticated the horse.²⁷

23. ibid., p.32.

24. ibid., p.30.

25. M.Jähns, Ross und Reiter, Leipzig, 1872, I, p.154.

26. See Otto Schrader, Reallexikon....Berlin, 1917, I, p.170.

27. J.H.Breasted, The Conquest of Civilization, New York, 1926, p.154., G.Hermes, "Das gezähmte Pferd im alten Orient", Anthropos, xxxi, p.367.

If the horse was used by the Indo-Europeans before their diaspora then concomitant with this is the taming and training of the animal for service, in particular, war service. We should appreciate, then, the skills of those who were responsible for instructing others in the principles of horsemanship. For it is without a doubt no "light and idle accomplishment", but an art "which was of solid use, and indispensably necessary in business of war."²⁸ The title of horsebreaker, therefore, was a title of "praise and respect."²⁹

There is much in the word "well-trained." Everything rests, however, on one foundation, and that is a close trust between horse and man. Without this first principle neither will do his best, but with it, training becomes that much more of a pleasure and the benefits are enormous. "Depending on their gifts, horse and rider can reach a higher or lesser level of rapport and performance, some reaching the point of equitation as an art which, like all others, is infinitely perfectable."³⁰

How were the horses of the Āryans trained? A couple of verses show that the horses were well-trained. The word smād-diṣṭi means "well-trained."³¹ In a hymn that thanks the Ásvins for their manifold blessings, one Śāṇḍā gives to the priests (who accept on behalf of the Ásvins), "gold-decorated, well-trained (horses)."³² Another verse refers to the four horses of Paijavana that shall be given to the priests. These are well-trained and decked with pearls.³³ The last reference in which the word occurs tells us of two people called Yādu and Turvása who present to the priests two "well-trained" servants along with numerous cows.³⁴

28. Richard Berenger, op.cit., p.49.

29. ibid.

30. J.Froissart, Equitation, Holywood, 1978, p.123.

31. M.Monier-Williams, Sanskrit-English Dictionary, p.1271., WzRV, col.1614.

32. vi.63.9. śāṇḍó dād dhiranínaḥ smāddiṣṭīn.....

33. vii.18.23. catváro mā paijavanásya dānāḥ smāddiṣṭayaḥ kṛṣanínó nireké.

34. x.62.10. utá dāsā parivīṣe smāddiṣṭī góparīṇasā.

The Āryans therefore knew the art of training a horse. A basic principle is kindness to the horse. Xenophon recommends never to act with anger toward a horse, "for anger is a thing without foresight...."³⁵ In the Rgveda the sacrificer apologizes for any unkind treatment meted out to the horse, and with a prayer and offering makes good that excessive treatment.³⁶

Next comes mutual understanding. This can only come through a familiarity with the subject, and involves a projection of oneself so that the horse really becomes second nature. The centaur is the symbol of horsemanship and explains its meaning as soon as it is beheld, for there is such a harmony between horse and rider that they may be said to be but one. The horse understands the aids of the rider as if he was a part of himself, and the rider equally consulting the genius, powers, and temper of the horse.³⁷ The rider may almost be said, as in Hamlet, to be "incorpsed and deminated with the brave beast."³⁸

The Āsvins may present a parallel to the Centaurs. The horse became their sign, like it did with the Greek Dioskouroi. The oneness of the Āsvins and their horses is evident from many of the hymns to the Āsvins. The fact that the horse is a part of their name highlights the singular nature of man and horse.

Indra also has a close relationship with horses. Being "lord of bay steeds" he is the acknowledged master of horses. As for his own two horses that draw him, they are "ever close" to him and obey his instructions unhesitatingly.³⁹

35. On Equitation, vi.13.

36. i.162.17. cf.iv.10.1.

37. R.Berenger, op.cit., pp.36-37.

38. Hamlet, iv.vii., spoken by the king.

39. 1.vii.2 índra íd dháryoḥ sácā sámśla á vacoyújā.

The close relationship between horse and man is especially evident among people who depend for much of their existence on the horse. Thus the Huns were preëminent horsemen. Each member of the tribe was mounted "on a hardy wiry little steed... which so perfectly understood its rider's wishes, that it seemed as if horse and horseman were one being."⁴⁰

Equally interesting, as we push forward in time and place, is the relationship between horse and the Australian bushranger. A pioneer of those days recalls how great care, attention, and thorough breaking a bushranger bestows upon his horse. For he knows "how much depends on keeping him in good condition and ready for any emergency."⁴¹ The horse is

trained to stand fire under any circumstances, to come to the call of a whistle, so long as he hears it, even if in a fenced paddock, to jump it, and slip his head into the bridle extended to him, showing to what extent a horse in the hands of a man who can master him, together with firmness and patience, can be trained. So it is the bushranger's interest to treat the animal that carries him with care and consideration, and to procure the very best as to breeding and intelligence at any risk.⁴²

A similar situation is revealed by a writer of the sixteenth century. Here, as in the above example, the dependence of the person on the horse required that he treat him with consideration and above all, regard the animal as an extension of the rider. Therefore the rider should endeavour to "conceyue with youre selfe, that he and you doe make as it were but one body. And that you doth have but one sence, and one will."⁴⁴

40. T.Hodgkin, The Dynasty of Theodosius, New York, 1889, p.85.

41. John Phillips, Reminiscences of Australian Early Life, London, 1893, p.184.

42. ibid., p.185.

43. Thomas Blundeville, The Arte of Ryding and Breakinge Greate Horses, London, 1560, chapter v. cf. M.Jähns, op.cit., I, p.155.

44. W.Geiger, Civilization of the Eastern Iranians in ancient times, London, 1885, I, p.176.

The consequences of not treating the horse as a dear companion is vividly shown by an example in early Irān. Here the subject cries out against a neglectful master:

Never more shall you harness horses,
nor ride on horseback, nor yoke horses
to the carriage, you who do not ask for
strength for me in numerous assembly,
in populous companionship.⁴⁵

That oneness that the centaur symbolizes finds expression in the devotion of one to the other. Thus the Arab beduin says that only his horse understands like a son.⁴⁶ In Homeric times, two horses called Xanthus (Χανθός) and Balios (Βαλῖος) drop their lovely manes and cry on Patrocles' death.⁴⁷ And a bestiary says that "when their master is dead or dying, horses shed tears - for they say that only the horse can weep for man and feel the emotion of sorrow."⁴⁸ Small wonder, therefore, that to all peoples who had close dealings with the horse and came to regard it as part of their family, the horse should be "as much a part of individual life as his master's boots."⁴⁹

Apart from a love for the horse manifested in kind deeds and good treatment, there were also other measures necessary to produce a well-trained and trusted horse. The use of aids is an important part of true horsemanship.⁵⁰ Voice and heels were important pushing aids: "Like a war-strong racer with heels and with voice I spur you on..."⁵¹ Proper use of the whip (kaśā),⁵² heel,⁵³ and voice (urging on)⁵⁴ are designed to communicate to the horse the will of the rider. Obedience is also an essential aid to be imbued in the horse. For if the horse would not obey

45. Yast. xi.2. cf. the sacrificial hymn 1.162.2.

46. Brehm's Tierleben, iv. p.27.

47. Illiad, xvii.426 ff.

48. T.H.White, ed., The Book of Beasts, London, 1969, p.86.

49. C.Wissler, Man and Culture, New York, 1923, p.113.

50. See T.Blundeville, op.cit., chapter vi. He lists the aids as voice, tongue, rod, bridle, calves of legs, stirrups, and spurs.

the rider in a battle, what guarantee of safe escape was there?

Indra's horses are perfect examples of obedient horses. They are "yoked at a word."⁵⁵ The race horse and ultimately the divine horse Dadhikrā is another proof of the benefits of obedience. He is "victorious and faithful", and "obedient with his body in the combat".⁵⁶ No one can fight against Dadhikrā, for with his strong hoofs and thunderous roar he "fights against embattled thousands", and "none may stay him."⁵⁷

The equipment that the Āryans had for their horses is interesting. They probably used spurs (kīja).⁵⁸ Spurs (calcaria) were also used and common in the Roman world, but of stirrups there is no trace.⁵⁹ Neither is there any indication in the R̥gveda that stirrups were used. Stirrup is in fact a contracted form of the Old English stige-rap (stigan "to mount"), and etrier from the Old High German estrifa- a strap of leather. In the earliest stirrups, according to Clark, a metal strip was introduced to strengthen the leather strap.⁶⁰ One author believes that stirrups were evolved in Siberia by nomadic tribes not long before the fifth century A.D.⁶¹ The first stage in the development of the stirrup was "the attachment of a rope or a strap of leather to the riding pad to assist the rider to mount."⁶² De Camp believes that this loop which was on one side of the saddle helped the rider to mount. He also believes it was invented in this form by the Scythians before 100 B.C. as shown by the Chertomlyk vase, and the rigid twin stirrup was invented by the

51. ii.32.3. pádyābhir āśúm vacasā ca vājīnam tvām hinomi puruhūta viśvāhā.

52. See WzRV, col.320.

53. i.162.17.

54. i.162.17. sū-kr̥ta-.

55. vi.20.9.

56. iv.38.7-8.

57. ibid.

58. viii.66.3.

59. J.M.C.Toynbee, Animals in Roman Life and Art, London, 1973, p.172.

60. G.Clark, op.cit., p.54.

61. A.D.H.Bivar, "The Stirrup and its Origins", Oriental Art, 1, 1955, p.65.

62. W.Ridgeway, The Origin and Influence of the Thoroughbred Horse, Cambridge, 1905. pp.498-499.

Sarmatians soon after 100 B.C., and helped them to overthrow the Scythian empire.⁶³

Regardless of who invented the stirrup, the fact remains that rider managed to do without its use for some time. The Persians, like the Greeks, used neither saddles nor stirrups, and as a rule mounted by giving each other a 'leg up.'⁶⁴

Other items that the horse was equipped with included bridle and bit. The bridle (raśmān, raśanā, raśmī), halter (saṁdāna), reins (abhīśu), and ropes (dāmā, rājju) for leading and tying the animal to an object were all known. In addition, there is an interesting word mentioned called paḍ-bīśa-. It has been translated "foot-fetter,"⁶⁵ but better and more likely is "hobble."⁶⁶ A representation of this is found on the Chertomlyk silver amphora of the Scythians.⁶⁷

The Āryans, like all good horesmen, knew that a horse's value lay in its feet. We thus find the word vīḍu-pāni-, "strong-hoofed",⁶⁸ or "having sound hoofs." The hippologist Xenophon recommends that an examination of the body of the horse should begin with the feet, "so too a war horse, even if all his other parts were good, could be valueless if he had bad feet."⁶⁹

The Āryans washed their horses regularly,⁷⁰ possibly daily.⁷¹ Columella lays down a rule that the body of a horse should be cleansed every day with as much care as that of a human, and that its back should be rubbed by hand.⁷² The Āryans employed the curry-comb for cleaning their

63. L.S.de Camp, "Before Stirrups", Isis, li, 1960, p.159., for the Chertomlyk vase see M.I.Artamonov, Treasures from Scythian Tombs in the Hermitage Museum, Leningrad, London, 1969, p.52. The silver wine amphora from the Chertomlyk barrow shows Scythians breaking in horses. The horse which has the rope hanging from its saddle is being hobbled.

64. For mention of the Persian fashion of mounting see Xenophon, Anabasis, iv.4.4. Cyropaedia, vii.1.38., Arrian, i.15.8., O.M.Dalton, The Treasure of the Oxus, London, 1964, p.xli. 3rd rev.ed.

65. KEW, I, p.470., Böhtlingk und Roth, SW, iv, p.387., WzRV, col.760.

66. Pischel, VS, I, pp.233-236.

F.B.J.Kuiper, "Rigvedic Loanwords", in W.Kirfel, Studia Indologica, 1955, p.162. Kuiper suggests that this has a non-Āryan origin.

horses.⁷³ They also possessed stables for their horses.⁷⁴ And like good horsemen, they were aware of the defects in a horse and appreciated the good qualities, such as a straight back.⁷⁵

Throughout ancient and modern times, wherever horses occur, many people have a favourite steed or mare. The name given to the animal may indicate the nature of it, and this is especially true in antiquity when racing was a very popular pastime.

The R̥gveda provides several examples of loyal horses that became the favourites of their masters. Indra's two bay steeds, for instance, were the wonderment of the Āryans. These were noble, swift, unwearing, and obedient.⁷⁶ Agni's horses are wind-impelled (vāta-jūta), beautiful (svāśva), ruddy (rohít), tawny (aruśá), active (jīrāśva) and mind-yoked (manoyuj), showing what singleness of thought existed between Agni and his horses.⁷⁷ The horses of the Āśvins are especially swift, auspicious and vigorous. They deserve worship because of the many wonders they perform.⁷⁸

There are in addition a few horses whose individual names have been preserved. These are Dadhikrā, Pedu, Tārksya, Étaśa and the Vājins. They are all deified horses and as they have a new existence they are responsible for spurring earthly horses.⁷⁹

Dadhikrā has an interesting derivation. It comes from two words, the first being dādhi-, "sour milk", and the second krā-, from kir-, "sprinkle."⁸⁰ The meaning is therefore "milk flakes." This may well be a vestige or even an isolated piece of evidence to show that the Āryans relished mare's milk.

67. See quote 63.

68. WzRV, col.1315.

69. i.2.

70. ix.20.5-6.

71. See iv.15.6-9.

72. De re Rustica, vi.30.1.

73. viii.66.3. M.Monier-Williams, op.cit., p.828., WzRV, col.1054.

74. See iv.2.11.

75. iv.2.11.

One author believes that it is a reminder of the Āryans' ancestors who lived on the steppes.⁸¹

According to Callimachus, the Cimbri (who were no other than the Cimmerians) were mare-milkers. He explains,

The attachment to mare's milk has been common to most nations in their uncivilized state. Most rude and poor nations drink the milk of the animals they ride.... This habit suits their moveability, scanty property, small supply of food, and a sterile or uncultivated country.⁸²

The flesh and milk of the horse were well-known articles of food to the Indo-European peoples.⁸³ The Scythians and Sarmatians used mare's milk as a regular food supply.⁸⁴ It was the most important singular item in their daily diet.⁸⁵ This fermented mare's milk (Greek οχυυαλα) is exactly the same item as used by the Turks who call it kumis. This custom may still be found in parts of Central Asia.⁸⁶

The Greeks heroized swift horses. In the foaming, restless billows of the sea, the white foam of the surging sea, in the typical white-top waves that precede the outbreak of a storm, the Hellenes saw the moving, white-maned horses of Poseidon.⁸⁷ A white-topped wave is still known in the English language as a white horse.⁸⁸

76. See i.30.16., 177.1-2., ii.16.3., 18.3-7., iv.29.2,4., 32.22-24., 45.6., v.33.2-3., 43.5., vi.20.9., vii.31.12.

77. J. Muir, Sanskrit Texts, v, p.213.

78. vii.67.8., vii.74.4.

79. See x.178 for Tārṣya., iv.38 for Dadhikrā., i.116.6 for Pedu., also vii.38.7-8 for the collective divine race horses.

80. WzRV, col.574. F.Schachermeyer, Poseidon....Bern, 1950, p.80.

81. ibid., p.71, note 18.

82. v.252, in S.Turner, History of the Anglo-Saxons, London, 1836, I,p.38.

83. Julius von Negelein, "Das Pferd in der Volksmedizin", Globus, lxxx, 1901, p.203.

Poseidon was the creator of the horse in Greek legends, first called Areion.⁸⁹ It remained his main symbol, and legends all over Greece (especially from Thessaly and Attica) ascribed to Poseidon the creation of this marvellous creature.⁹⁰

The Poseidon of the Tuatha de Danaan in Eire is Ler, but little is heard of him in comparison with his son Manannan mac Ler. He had a horse called "Splendid Mane", which like all horses that have been deified, possessed supernatural strengths. He was swifter than the spring wind and travelled equally fast on land or over the waves of the sea.⁹¹ His horses bear the title Wogen, meaning "surges".⁹²

The heroization of the horse thus marked a unique bond between man and horse. Although the horse and chariot were important, they were not inseparable. The horse could be used as a mount and enjoy as much esteem as if it was drawing the chariot. But the age of chariotry was too strong to be removed at the moment, and the horse must wait before the age of riding attains a similar greatness. Either way, the horse could not be forgotten for it had made itself a name, and would impress that name on many more civilizations long after the Aryans had perished.

84. W.M.McGovern, op.cit., p.44.

85. ibid., p.45.

86. ibid., cf. Herodotus, History, i.216., iv.2.

87. O.Keller, op.cit., p.249.

88. Chamber's Twentieth Century Dictionary, under white-horse, p.1555.

89. Il.xxiii.344., J.von Negelein, Das Pferd im arischen Alterthum, Königsberg, 1903, p.71.

90. O.Keller, op.cit., p.249.

91. Charles Squire, The Mythology of the British Islands, London, 1905, p.60.

92. F.Schachermeyer, op.cit., p.98.

Chapter IV

HORSE AS IMAGE OF THE GODS

The hymns of the Ṛgveda abound with references, stories and myths about conquest and defeat. The cry of war, the battle, can be vividly heard from the voices of the poets. The clang of swords, the rumbling of chariots across the plains, the war cry, and the snortings of horses are all picturesquely described, if only at times briefly, by the poets of almost three thousand five hundred years ago.

In the midst of these battles there is the part played by heroes. Every nation has had its heroes who have led their people through battles: their mere presence enspirits the army to go forth with renewed vigour and determination. People can put their trust in a leader who they know will safely deliver them from their enemies. In ages past, the leaders who generated most enthusiasm in battles are the gods. The god of war is an extremely powerful figure and appears in many mythologies as the most powerful and influential of the gods. This is not surprising since the occupation of a territory meant constant alertness and preparedness for war.

Indra is the war god of the Āryans. His supremacy overall is unquestioned by the poets. The trust in him not merely borders on divine worship, it is divine worship. He is a god whose tasks involve the defeat of wicked powers in the heavenly realm and the enemies of the Āryans on earth. The problem that researchers have had with war gods like Indra is who or what they are or represent. This has not been easy as one Celtic scholar has admitted:

Indra was far more human than the elemental gods, and, in fact, so much so that no one has been able to say with any great probability what he was originally a personification of.... it being, to say the least of it, just as probable that, in point of origin and history, Indra should be regarded as a deified man.¹

1. J. Rhys, Lectures on the Origin and Growth of Religion as Illustrated by Celtic Heathendom, London, 1888, p.293.

The task of finding out what a god is is not easy. The poets do not say in a straightforward manner what Indra is. This is not to say that they do not tell us, it merely means that we have to search hard, piecing the evidence together before we can find out what he is. He is certainly an elusive god, possessing diverse characteristics. A clue to what he is comes when one examines a common theme in the legends involving him. It goes like this: Indra releases the water from the clouds (which are figuratively called mountains) and sends the lightning (which is his bolt), but one does not see him.² Where is he?

Natural phenomena are seen, but the beings that control them are not seen. Indra is one of these latter. He is invisible because he is immortal. So are the other gods. The Indo-Europeans emphatically proclaim their existence and anyone who does not is regarded as an unbeliever and will incur the gods' fearsome wrath. The processes of nature are not believed to be accidental. A higher, much more powerful and intelligent lifeform is responsible for them. The Āryans' creation of these beings is meant to explain the forces and happenings of nature. In this scheme of things each being has a special sphere of operation, though sometimes it overlaps with another. With Indra war is the principal concern.

The epithets describing Indra are legion, but one of especial interest calls him "lord of bay steeds."³ Why should he bear this title in many passages of the Ṛgveda? Indra has two horses. They are his dear companions that take him to the battle scenes and the sacrifices. Indra's horses are swift, well-trained and dearly loved by their owner. No other courser can overtake these two supernatural beasts. Their yoking or mounting depends on the prayers of the worshippers. If they do not

2. H. Oldenberg, *Die Religion des Veda*, Berlin, 1923, p.41.

3. i.3.6., 165.3., viii.1.9,24,25,31-32.

request help then surely the horses of Indra cannot be expected to come. The references to these horses are many, and this fact confirms the importance of the title.

A little reflection will show why Indra bears this title. The god Indra is principally a god of war- he wields the thunderbolt and leads the charge into battle. The horse, like Indra, is also a charger, that is to say, one who delights in the battle. All authors on war, ancient and modern, have known that the horse is an animal suited for war. The Roman writer of the fourth century on animal husbandry, Vegetius, lists the horse's most important uses as , firstly, war, secondly, racing in the circus, and thirdly, riding.⁴ Plutarch, when referring to the Trojan horse, says that the horse is a spirited and warlike animal.⁵ The Greek writer Oppian refers in a brilliantly descriptive passage about this particular temperament:

How in the battle does the warhorse hearken
to the martial note of the long trumpet that
marks the din of conflict! How with unwinking
eyes does he look upon the dense array of armed
warriors, the gleaming bronze, the flashing
sword! He has learned also when it behoves him
to stand and anon to charge; and he has
learned to hearken to the watchword of mighty
captains.⁶

The horse's reactions in battle have proved favourable ground for poets and writers both old and modern. A seventeenth century treatise on animals describes the desirable qualities in a great war horse:

4. Ars Mulomedicina, iii.6.2.

5. Quaestiones Romanae, 97.

6. Oppian, i.205-211.

they must be such as will rejoyce
and gather stomach at the voice of
music, trumpets, and at the ringing
of armour: they must not be afraid
of other horses, and refuse not combat,
but be able to leap high and far,
and rush into the battel, fighting
(as is said) with heels and mouth.⁷

When a rider's life depended on the horse it would be comforting to know that the animal will play its part in the battle. The comments above agree that the horse is the animal of war par excellence even more in antiquity than in modern times.⁸ Its preëminent place is in the battlefield and here it has no rivals. So much in fact is the horse identified with war that some cities in antiquity used it on their coins to symbolize conquest. As an illustration of the significance of the horse, in particular its head, signifying war, take the example of the founding of Carthage.

According to tradition, Carthage was founded by Dido, the Phoenecian queen in the ninth century B.C. By the order of the oracle, a priestess of Juno dug in the ground and discovered the head of a bullock. This was deemed unsatisfactory because bullocks and oxen were servile animals under the yoke. Hence the city would be enslaved. Another attempt was made, however, and a horse's head was uncovered. This was reckoned auspicious because the horse was symbolic not only of war but of victory as well.⁹ Justinus¹⁰ says that the finding of a horse's head indicated that the people there established would become bellicosus potensque. The head of the horse is the important thing since the head contains the senses and thoughts of the animal.¹¹

7. E.Topsell, The Historie of Fovre-Footed Beastes, London, 1607, p.313.

8. H.M.Hubbell, "Horse sacrifice in antiquity," Yale Classical Studies, 1, 1928, p.183.

9. F.Creuzer, Symbolik und Mythologie der alten Völker, Leipzig, 1843, iv, p.380.

10. xviii.5.16.

The horse's place is thus in the battlefield. It is not unusual, therefore, to find that it is held as a sacred animal to the god of war. In the Ṛgveda this place belongs to Indra. As the chief god of war he is called "lord of bay steeds." As Indra's steeds are instrumental in slaying Vṛtra and his company, so too does the earthly warrior desire that divine strength in him and his horses. Thus Indra's horses are said in one place to be linked with the power of Indra.¹² They are his helpers in all situations, and because they bear him through all tasks they also partake of the offerings which mortals prepare for Indra. In most cases this is barley and perhaps some Soma.

The continued existence of the Āryans depends upon victory. Hence sacrifices relating to war are foremost among the people. When the Ṛgveda is read war comes up as the dominating theme. The life of the people, their security and well-being depend on the alertness of the Āryans and their ability to crush incursive tribes. In the Āryans' war equipment the principal vehicle is the horse. Here this creature comes into its own. It is valuable since it is the security of the tribes. Whether used in riding or drawing the chariot, the horse is depended upon for the welllihood of these tribes. Hence the veneration and care bestowed upon it.

Sacrifices were many, but those concerned with war were the most important. The winning of spoil looms high among the poets' praises, and rightly so. Spoil means increased wealth and better life for the people. Just as Indra wins spoil "with steeds"¹³, so too presumably does the leader of the tribe wish to do the same. If the horse is sacrificed, the spirit of the beast will be with the leader in his conquests. Conquest is

11. H.M.Hubbell, *op.cit.*, E.S.McCartney, "The Omen of the Buried Horse's Head in Vergil's Aeneid," *Classical Journal*, xxii, 1927, pp.675-76. cf.Aeneid, iii.537-543.

12. i.52.8. jaghanvān u hāribhiḥ sambhṛtakratav indra vṛtrām mānuṣe gātuyān apāh.

13.

an important part of the horse sacrifice because the horse symbolizes it. It is no great wonder, therefore, why Indra is called "lord of bay steeds" because he is the conqueror whom no one can defeat.¹⁴

There survives some evidence that ancient kings employed the horse to assert their suzerainty. It grows into a complex ritual in later Indian history where it becomes an expensive state ceremony, but the R̥gveda knows the sacrifice as relatively simple. In one example King Sudās is pictured establishing his hold over territory and conquest of foes:

Let loose Sudās' horse to win riches!
May the King slay the enemy in the
East, West and in the North; then he
shall perform a sacrifice at the best
place of the earth.¹⁵

Here the releasing of the horse indicates that the king hopes to be victorious. As in the battle the racing forth of the horse means spread of territory and freedom to roam over that territory, so would the extent of the king's dominion be. This releasing of the horse, therefore, is "the most important manifestation of kingship."¹⁶

There is another verse which hints at this custom. In this instance King Bhavyá, who dwelt on the banks of the Sindhu, presents to the priests a magnificent display of gifts: cattle, horses and chariots of all kinds. This may be a token of appreciation for the priests' prayers for his victory, or rather, assertion of suzerainty. For example, he is called "unconquered king", and he has extended his "unwearied glory to the high heavens."¹⁷ The word for "unconquered" may be equally well

14. viii.2.36. sánitā vípro árvadbhir hántā vṛtrám nṛbhiḥ sūrah/ satyo
'vitā vidhántam.

15. iii.53.11. úpa préta kuśikās cetáyadhvam ásвам ráye prá muñcatā sudāsah/
rājā vṛtrám jañghanat prāg ápāg údag áthā yajāte vára á pṛthivyāḥ.

16. J.Gonda, Ancient Indian Kingship from the religious point of view,
Leiden, 1966, p.114.

17. i.126.1,2.atūrto rājā.....diví śrávo 'jāram á tatāna.

translated "unrivalled" or "matchless", signifying that there is no worthwhile opposition, and that consequently his power and glory are firmly established. This is precisely the purpose of setting the horse free. In a way, just as in Carthage the finding of a horse's head signifies conquests and victories for the city in the future, so too does the releasing of the horse mean the establishment of victory. The victor (symbolized by the horse) is unhindered in his movements. In each instance the horse plays a role in asserting dominance and power.

The act, however, is not complete. To show respect to the gods who have favoured the ruler, he participates in the slaying of the horse. It must have been a great loss to the ruler to lose such a horse, since only the most faithful horse could be offered to the gods. No sacrifice is really worthy of the gods, but the best possible horse is chosen and invariably the animal is white or a light colour.

White was universally held to be a sacred colour. Its sanctity was not confined to animals alone but extended also to such objects as robes and garments. One Roman writer, Ammianus Marcellinus, states that in their triumphs and sacrifices the Romans chose white oxen.¹⁸ And others observe that if white oxen could not be purchased which were perfectly white they were coloured with chalk, so that they would be artificially white!¹⁹ The oxen were called boves cretati.

White was considered the preëminent colour. It was "the most admired, and considered as a mark of pre-eminence and sovereignty."²⁰ It was "always considered as the imperial badge, and consecrated to sovereignty."²¹ Livy reckons white horses among the insignia of royalty, just as much as the purple robe, armed guards and the diadem.²² White horses invariably drew triumphers or royalty- no other colour was fit for sovereignty.²³

18. xxv.4.

19. Richard Berenger, The History and Art of Horsemanship, London, 1771, I, p.94.

20. ibid., p.93.

21. ibid., p.95.

The origin of the veneration of white-coloured objects may be traced back to the word shine. Dív- is the verb form from which the word god (devá) is derived, and it means "the shining one."²⁴ The Indo-European speaking peoples regarded the sun as representing

the sum of all beauty and sovereignty, everything good and beneficial, as the principal condition for every aspect of created life on the earth, as a divinity without which no-one would be, and without which the entire creation would be annihilated.²⁵

The sun is the brightest luminary. Its bright colour, which filled the whole earth, remained a source of mystery to the ancients. Anything white, therefore, had some sanctity attached to it. But especially is the horse sacred and all the more so if it is white. For just as the sun is sometimes likened to a horse and at times said to be drawn by white horses, so a white horse would in fact be thought to have descended from the sun. It may be of interest to note here that of all the animals kept by man only the horse's history has been genealogically kept. This is still true today with racehorses.

Because of the sanctity attached to white horses, they were often kept apart. This is certainly true in some northern countries. Not that there was anything superior about white horses either in speed or other qualities, "but rather to the sanctity attached to animals of a white colour...."²⁶ There are a number of instances in Indo-European countries where only white horses could be sacrificed, in particular to the sun.

22. Natural History, xxiv.5.

23. Propertius, Elegiae, I, Book 4.

24. H. Böttger, Sonnencult der Indogermanen, Breslau, 1890, p.29., J. Scherr, Germania, Chicago, 1891, p.1.

25. H. Böttger, op.cit., p.26.

26. W. Ridgeway, The Origin and Influence of the Thoroughbred Horse, Cambridge, 1905, p.105.

Thus in Persia after Cyrus' reign a horse was sacrificed every month to Cyrus at his tomb at Pasargadae.²⁷ So great was the value set upon white horses by the Persians that the tribute paid by the Cilicians was set at "three hundred and sixty white horses, one for every day in the year, and five hundred talents of silver."²⁸

The Illyrian Veneti sacrificed white horses in a shrine called after Diomedes; and white horses were held in special esteem by some tribes of Germany, and "the sacrifice of horses was a characteristic of the religion of the Teutonic and Scandinavian peoples."²⁹ In Sicily white horses were highly esteemed.³⁰ White horses were specially bred in Persia.³¹ A breed, called the Nisean breed, was regarded as very sacred. Darius took them along in his army and they drew the chariot of the gods.³²

According to early Greek legend Poseidon created the horse. It was also he, according to several Greek writers, who introduced the horse sacrifice. These authors speak of white horses being drowned in his honour: they were drowned because Poseidon was also god of the sea.³³ When we examine the literature of Greece's successor and debtor, Rome, we also find references to white horses being offered to the gods. Thus on the first of January the newly elected Consul sacrifices to the sun god Janus a white horse on the Capitol in Rome.³⁴ And in the field of Mars a white horse is sacrificed yearly.³⁵ It is noteworthy that Mars, like the Rgvedic god Indra, is that country's chief war divinity, and because the horse was regarded as the animal of war, it was a fitting sacrifice. The ancient Germans, particularly in the north of the country,

27. Anabasis, vi.29., Strabo, Geography, 729.

28. Herodotus, History, iii.90., vii.40.

29. W.Ridgeway, op.cit., p.105.

30. ibid., p.104.

31. Herodotus, History, iii.90., vii.40.

32. ibid., i.189., Fr.Schachermeyer, Poseidon....Bern, 1950, p.76.

33. L.Malten, "Das Pferd im Totenglauben," JKDAI, xxix, 1914, p.214.

34. Lydus, De mensibus, iv.3., H.Böttger, op.cit., p.42, note 95.

35. Sextus Pompeus Festus, 14.

offered up humans and horses to the sun and war god "and nourished prophesying white horses in groves."³⁶

Quite a few parallels were offered by the ancients to justify the glorification of an animal or object. The horse was an animal of the sun because like the horse the sun is a runner. "The sun in the heavens has the white horse as its emblem."³⁷ Interestingly enough, the Romans firmly believed in the superior fleetness of horses of white colour, so that "to outstrip with white horses" became a proverbial expression for an easy victory.³⁸ Vergil³⁹ represents Turnus, king of the Rutuli, as drawn by horses "which surpassed in whiteness the snow, in fleetness the wind."⁴⁰

Returning to Vedic India we find a similar situation. Here, as elsewhere, white horses are esteemed. But it is not only for their white or bright colour but for some superior qualities. Take the example of the Ásvins and Pedú. These beings gave to Pedú "a swift horse, winning thousands, who carries off the prize, who is irresistible, the dragon-slayer, glorious, conquering (enemies)."⁴¹ And again: "You Ásvins have given to Pedú from Indra a fiery, dragon-slaying, white horse.... the superior one, powerful, winning thousands, like a bull with strong limbs."⁴² This beautiful horse (śvetám áśvam) replaced the nag which he formerly owned.⁴³ The praise given to this horse shows that it was the kind of horse an Āryan would treasure. He is called "the swift horse"⁴⁴, showing that all the valuable attributes a horse could possess were packaged in this beast. In a later hymn, Soma is compared to him on the grounds that he is "a slayer of all these who are called dragons...."⁴⁵ Pedú, like Dadhikrā and Tārksya, joined the league of divine horses whose job it is to aid those in the battle and the race on earth.

36. Tacitus, Germania, ix.1., i.16.

37. H.Böttger, op.cit., p.43.

38. Horace, Satires, i.7.7-8.

39. Aeneid, xii.84.

The Ṛgvedic poets were not without recourse in finding appropriate comparisons for the horse. Indeed the many comparisons show how uppermost was the horse in their minds. Its importance is recognized in many spheres of life: the sacred and the secular. When we find the horse compared with another highlight of Ṛgvedic life we should not be surprised. It is only regrettable that the significance has been only rarely appreciated.

Soma's fame has grown since its identity has been revealed and accepted by quite a few Vedic scholars.⁴⁶ But Soma's identification is not necessary for the use we need to make of it. The epithets and descriptions are sufficient to show how close the poets viewed Soma and the horse. Perhaps the comparisons may appear absurd, but such is far from the truth. It is in fact "of the greatest importance in Vedic mythology."⁴⁷

The most familiar of offerings, that of Soma, is often presented as the offering of a horse. Soma represents the horse. In one verse we read of the offering procedure: "Pour out the gold-coloured (Soma) in the bowl of the wooden vessel; chip it with stone axes! wrap it with ten bands; harness the beast to the two poles!"⁴⁸ Stone axes are not used for chopping up a juice. It may refer to the actual stalks, but even so the verse is an allegory. Indeed the verse calls the juice a vāhni- a drawer, runner, that is, a horse! The poet understood the comparison: the

40. W.Ridgeway, *op.cit.*, p.308.

41. i.117.9. purū vārpāṅsy aśvinā dādhanā nī pedāva ūhathur āśum āśvam/ sahasrasām vājīnam apratītam ahihānam śravasyām tarutram.

42. i.118.9. yuvām śvetām pedāva īndra jūtam ahihānam aśvinādattam āśvam/ johūtram aryō abhībhūtam ugrām sahasrasām vīṣaṇam vīdvāṅgam.

43. i.116.6. yām aśvinā dadāthuḥ śvetām āśvam aghāśvāya śāśvad it svastī.

44. vii.71.5.pedāva ūhathur āśum āśvam.

45. ix.88.4. paidvō nā hī tvām ahināmnām hantā vīsvasyāsi soma dāsyoh.

46. R.G.Wasson, *Soma*.

47. A.H.J.Bergaigne, *La Religion Vedique*, Poona, 1969, I, p.225. Trs. by V.G.Paranjpe.

48. x.101.10. ā tū śiñca hārim Im drōr upāsthe vāsībhis takṣatāśmanmāyībhiḥ/ pāri svajadhvam dāsa kakṣyābhir ubhe dhūrau prāti vāhniṃ yunakta.

Soma offering symbolically portrayed the offering of a swift horse: the Soma runs down through the filter and is then partaken of, just as the horse is, as we shall shortly show.

Soma is sometimes called hāri- a colour which may vary from flaming fire to golden yellow. It may be doubted whether "any mundane colour such as 'bay' would describe the steeds of the sun,"⁴⁹ but one should remember the different colours the sun radiates from its ascent to its descent. Thus we find Soma compared many times with the sun because of their like colours.

Soma shines with the sun,⁵⁰ and he makes the sun to shine.⁵¹ The colour of Soma blends well with the sun. It is directly called the sun innumerable times or represented as the sun. The sun here is Sūrya, the physical luminary that, from an earthly viewpoint, traverses the heavens. Just like the sun, Soma is a great mystery. The Ṛgvedic poets asked questions such as why does the sun not fall? what holds it up? To their thinking the sun housed the secret to eternity. All eternal beings had their abode there.

Where the everlasting light is,
in which world the sun is placed,
in this send me, O juice, in the
immortal, imperishable world.⁵²

And again one can see that immortality was greatly desired; and objects like Soma were thought to represent, as it were, a shadow or semblance of immortality: "Where every wish and desire (are fulfilled); where the highpoint of the sun is....."⁵³

49. R.G.Wasson, op.cit., p.37.

50. ix.2.6. sām sūryeṇa rocate.

51. ix.28.5., 37.4.

52. ix.113.7. yātra jyōtir ājasraṁ yāsmin loke svāḥ hitām/ tāsmin māṁ dhehi pavamānāmṛte loke ākṣita indrayendo pāri srava.

53. ix.113.10. yātra kāmā nikāmās ca yātra bradhnāsya viṣṭāpam.

Like the sun, Soma is compared with a courser. The horse sums up in an earthly object the nature of the sun, and so does Soma. But although Soma has divine-like qualities, such as giving added strength and the ability to perform valorous deeds that ordinarily could not be performed, it is not a member of the animal world. It therefore does not have the life that an animal does. The horse sacrifice represents the highpoint in the R̥gvedic sacrificial calendar. The Soma sacrifice, while it was very important, was a daily event, and a type of the greater, horse sacrifice.

Like the horse, Soma is divine. He is "sprung from the gods."⁵⁴ The procedure of crushing the Soma stalks and allowing the juice to flow down until it reaches the filters and is poured off is picturesque, and oftentimes compared with preparing a horse for a race or battle, and then watch it attain the victory. Firstly, then, the horse is selected: "We choose today that chariot steed of yours, the Strong, that brings us bliss, the Guardian, the desire of all."⁵⁵ Then comes the adornment and robing: "Ten rapid fingers deck the courser in the jar...."⁵⁶ "Carefully cleansed and decked like a prize-winning Steed, O Soma...."⁵⁷ "O Soma, you are decked to win...."⁵⁸ The priests array in gorgeous dress the Soma for immortality just as a driver or rider adorns his horse.⁵⁹

The next step is the race. "Like chariots that thunder on their way, like coursers eager for renown, have Soma drops flowed forth for wealth..."⁶⁰ In an allegory, the pressers who squeeze the juice and send it along to the bowls for collection are compared to charioteers: "Drive you that tawny courser, O you pressers, on his way to war, swift steed that carries off the spoil."⁶¹ And the fate of the juice? "To glory you go, sage with disposing skill, like a groomed steed you rush forward to the prize."⁶² "Haste, like

54. ix.97.29.devájātā.

55. ix.65.28. ā te dakṣam mayobhúvam váhniṃ adyā vṛñīmahe/ pāntam ā puruspr̥ham.

56. ix.85.7. átyam mr̥janti kaláśe dáśa kṣīpaḥ....

57. ix.85.5. marmr̥jyamāno átyo ná sānasír índrasya soma jatháre sám akṣaraḥ.

58. ix.56.3. mr̥jyáśe soma sātáye.

59. ix.62.6. ād Im ásvam ná hétāro 'sūsúbhann amṛtāya.

a steed , to victory for glory....."⁶³ Like a courser, Soma gives victory and hence ultimate glory. He raises the courage of the combatants who drink him, and his part in the defeat of Vṛtra and other demons is substantial. Soma is the human's gift to the gods, and once they partake of it, their power becomes unsurpassed. Indra slays Vṛtra because Soma imbibes in him incredible strength.

Soma also gives victory to humans. The arguments for Soma being a mushroom are well-grounded, and the effects produced add to the argument. A stimulant such as this would produce 'fire' in humans that hitherto was not there. Small wonder, then, that the people who drank this juice looked on the mushroom as a gift from the gods. It did something that few other things could do. It gave victory. And so too did the horse, another gift from the gods. The comparisons continue.

The prize is now in sight. One should expect loud neighings and snortings from the beasts as they gallop onwards in ever increasing fury. "Like a courser racing to the prize, Indu, the lover of the gods, roars as he passes, in the sieve."⁶⁴ And later:"The king is passing through the filter with a roar....."⁶⁵ "You, yoked by strong men, neigh like a courser, swifter than thought is, like an awful lion...."⁶⁶ The loud noises produced when the juice flowed through the filters conjured up in the poets' minds the

60. ix.10.1. prá svānáso ráthā ivārvanto ná 'śravasyāvah/ somāso rāyé akramuḥ.

61. ix.62.18. tām sotāro dhanasṛtam āsūm vājāya yātave/ harim hinota vājīnam.

62. ix.82.2. kavír vedhasyā páry eṣi māhinam átyo ná mrṣtó abhí vājam arṣasi.

63. ix.97.25. árvāñ iva śrávase sātīm áchēndrasya vāyór abhí vītīm arṣa.

64. ix.43.5. índur átyo ná vājasṛt kanikranti pavíttra ā / yád ákṣār áti devayúḥ.

65. ix.85.9. rājā pavíttram áty eti totuvad.....

66. ix.97.28. ásvo nó krado vṛṣabhir yujānaḥ sínhó ná bhīmó mánaso jávīyān.

battle and racing scenes.

The ultimate destiny of the juice is the same as the prize horse. "The men, the sages with their hymns, eager for help, deck the strong steed, deck you for service of the gods."⁶⁷ This is the purpose of the Soma sacrifice and also of the horse sacrifice: dedication to the gods. While the procedures of the sacrifices are the same, the time of the performance is entirely different. The soma sacrifices are daily sacrifices: sunrise, midday, and sunset. They celebrate the positions of the sun each day.

When the sun begins his journey he is young and fresh and ready to embark on a long passage from east to west. He has just emerged from darkness and who knows what he encountered there? Poets and storytellers filled in the details for the curious, and the mystery or unseen journey of the sun provided the basis for many myths about the hero's capture or long duel with the malevolent powers of darkness. But now the sun is free and his victory is always assured. The morning Soma sacrifice celebrates this victory of light over darkness daily to remind the participants that good and light triumphs over evil and darkness.

The daily sacrifices are only half of the sacrificial year. There are certain times during the solar year which divide the seasons from one another. Most peoples of antiquity chose common dates to celebrate a significant event in nature's pattern. To people whose lives were bound up with the fortunes of nature, changes in the seasons were of vital concern. Many of these festivals refer to the same thing.

67. ix.17.7. tám u tvā vājīnaṃ náro dhībhír víprā avasyávaḥ/ mrjānti devātātaye.

Man watched the rise, progress and decline of the fiery ball of the day and how it related to the changes in seasons. Festivals created for the purpose of reminding people of the changes in the seasons were invariably great celebrations, either joyous or remorseful.

Among the most celebrated of festivals are the winter-solstice, summer-solstice, spring equinox and new year's feast. The winter solstice holds a specially prominent position.

The feast of the winter solstice meant the beginning of the rebirth of the sun. One of the names this feast appeared under was Jule, Yule or *Ycol*. It was a combination of religion and conviviality, and also marked the first day of the year.⁶⁸ It marked the beginning of what the ancient Germans called the "Mother Night", since from December 25th until the 6th of January was a period of 'twelve nights' in which time the people turned to their gods for aid during the coming year.⁶⁹

The winter solstice, like other high or holy days, was an ideal time to offer a worthy sacrifice. Unlike the daily sacrifices in the Aryan sacred calendar where soma juice and barley were offered, the special annual sacrifices required something more grandiose and fitting for the deities. This usually took the form of an animal or even human offering to please the gods and show appreciation of the expected favour for the coming season or year. In many lands the animal selected was the horse for it fitted most the objectives of these special sacrifices.

One of the names of the grand festival of the sun, Yule, may

68. S. Turner, History of the Anglo-Saxons, London, 1836, I, p.222., O. Huth, Janus, Bonn, 1932, p.67.

69. H. Böttger, op.cit., p.92.

have an interesting history. Tod derives the name from hi-el or hi-al of the northern nations. El means "sun", and hya or hi "horse".⁷⁰ This corresponds to a R̥gvedic name of the horse, hi.⁷¹ Tod's etymology may well be questioned, if only because scarcely anyone else has proposed it before. It is worthwhile keeping in mind, however, because the horse sacrifice to the sun was a well-known ceremony to many peoples of antiquity.

In ancient Ireland, Giraldus Cambrensis⁷² reports on a unique ceremony. Here a white horse is killed and the king is obliged to bathe in a tub with the slain horse, and not only that, but also "he must eat the flesh, and drinke the broath wherein he sitteth, without cuppe or dish or use of his hand".⁷³ This northern Ireland king-rite is parallel with the R̥gvedic, but more especially with the later Indic asvamedha.⁷⁴ It may well be a pre-Indo-European custom that lingered on.⁷⁵ Both support and disbelief have resulted from this account.⁷⁶ As part of his inauguration the king had to turn around three times from left to right and then three times from right to left. This was an old charm that supposedly imitated the sun's progress.⁷⁷ In the south of Ireland, there were certain fairs at which a white horse was paraded through the assembled crowds and then tied up to preside over the proceedings.⁷⁸

In ancient Rome there was a celebration in October that culminated

70. James Tod, Annals and Antiquities of Rajas'than, London, 1914, I, p.64.

71. WzRV, col.1647.

72. Topographia Hibernica, chapter 25.

73. James Ware, The antiquities and history of Ireland...London, 1705, p.17.

74. Fr.R.Schröder, "Ein altirischer Krönungsritus und das indogermanische Rossopfer", ZfKP, xvi, 1927, p.311.

75. ibid.

76. Support comes from G.Henderson, Survivals in Belief among the Celts, Glasgow, 1911, p.272. P.W.Joyce, however, believes that this is but

in the sacrifice of a horse. A race was held and the winning horse was offered to the gods. It was called October horse. Its blood was scattered on the temple steps, and the slaughtering of this victorious steed was believed to bring blessings for the country.⁷⁹ Mars was the presiding deity, both because he was the god of war and also the god of harvests.⁸⁰

To the north of the Persians dwelt a people called Massagetae. They worshipped only the sun as their god, and offered to this deity horses.⁸¹ When a Scythian king died, his horse was sacrificed in addition to members of his household. After the lapse of a year further sacrifices took place at the king's grave.⁸² In the Scythian king graves at Jekaterinoslaw horse bones have been found along with other personal items that the king thought indispensable for the hereafter.⁸³

In the northern countries, horse sacrifices were a vital part of the life of the people. In Germany horse offerings took place at all major festivals, usually in honour of Wodan and Frey.⁸⁴ Until this practise was stamped out by Christian missionaries, it flourished. In Swedan Snorri tells us that it had been the duty of the king to take charge of the royal sacrifice. A horse was led forth at the folk moot (the thing) and butchered. The meat was divided among the people for a sacrificial meal, but the blood was used to redden the sacrificial tree, called the blot tree.⁸⁵ There is also a ceremony where the Swedish king, as part

"one of the many silly fables" that make up his work. See A Social History of Ireland, London, 1903, I, p.419.

77. ibid., I, p.46.

78. ibid.

79. F.Schachermeyer, op.cit., p.91., O.Keller, Die antike Tierwelt, Hildesheim, 1909, I, p.246.

80. W.Köppers, "Pferdeopfer und Pferdekult der Indogermanen", WBKL, iv, 1936, p.289., S.Eitrem, Beiträge zur griechischen Religionsgeschichte, Christiana, 1917, p.20.

of a sacrifice, rides around the temple, following the course of the sun.⁸⁶

Nearly all of these rites emphasize the link between the sacrificial animal and the fertility of the land. A white horse, whose care was entrusted to priests or other specially-designated persons, was the holy animal chosen for the sacrifice. In a temple to Arkona, only priests could feed the white horse so that it would not be profaned.⁸⁷ The sacrifice of this pure horse was meant for the ruler of the heavens in order that its strength might be renewed once more.

The horse sacrifice had taken root in most of the Indo-European countries; a root so firm that its addictive practice posed formidable barriers to the proselytizing attempts of Christian missionaries. Pope Gregory III (A.D. 737) and Zachary wrote to their representatives in Germany to stamp this custom out for "it is an unclean and execrable thing to do".⁸⁸

One of the earliest pieces of evidence of this horse sacrificing

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81. Strabo, Geography, xi.513., Ovid, Fasti, i.385., Herodotus, History, i.212., 216., 420., H.Böttger, op.cit., p.42., J.Charpentier, Kleine Beiträge zur Indo-iranischen Mythologie, Uppsala, 1911, p.45., Pausanias, i.21.6.
82. W.Ridgeway, op.cit., p.128.
83. O.Keller, op.cit., I, p.226.
84. ibid., I, p.254.
85. N.Lid, "The paganism of the Northmen", in Studies in Folklore, Bloomington, Indiana, 1957, p.236.
86. H.A.Potratz, Das Pferd in der Frühzeit, Rostock, 1938, p.18., cf.Herodotus, History, vii.40.,55., 113., Curtius Rufus, iii.3.6., Tacitus, Germania, x., Xenophon, Cyrus, viii.3.13.
87. L.Hopf, Thierorakel und Orakelthiere in alter und neuer Zeit, Stuttgart, 1888, p.72.
88. W.C.Plenderleith, The White Horses of the West of England, London, 1885, p.5.

comes from the Rgveda. It may well extend its roots much farther back than that: possibly to the Indo-European antiquity or even before.⁸⁹ With a naked realism that is sometimes almost horrible, the slaughtering and burning of the horse occupies two hymns. The horse is a part of the sun, and when it joins the gods in the heavens it is only completing a relationship that partly existed while the horse was still alive. For the horse is truly "god-born"⁹⁰, and remains the gods' symbol. Although parts of the performance are grisly, other verses indicate a deep feeling for the animal. Perhaps because it was regarded as not merely another animal that this rather unique feeling is expressed.⁹¹

Elaborate and strict procedures governed the performance of the sacrifice. It was no haphazard and casual affair. The organs are carefully dissected and called out when severed.⁹² Every part of the horse had to be accounted for when put into the cauldron, for an incomplete sacrifice would incur considerable penalty. This is a complete or whole sacrifice, which means that the trappings—halter, bridle, nose rings, reins—would also go to the gods.⁹³

The successful performance of this sacrifice would mean blessings, both physical and spiritual. The horse is the generator, invigorator, winner, and possessor of "vigour" or vāja.⁹⁴ This was to secure fertility of nature and promote growth. It would also give victory on the battlefield and on the racing circuit. Like Dadhikrā, who perhaps himself was once a collection of meat lumps in a boiling cauldron, the new horse would cause the Āryans to conquer

89. See W. Köppers, *op.cit.*, p.284., Fr. Schroder, *op.cit.*, p.312., J. Puhvel, ed., Myth and Law among the Indo-Europeans, Berkeley, 1970, p.164.

90. i.162.1. ..vājino devājatasya.....

91. M. Oldfield Howey, The Horse in Magic and Myth, London, 1923, p.118.

92. i.162.9,10.

93. i.162.16.

94. iv.38. passim.

new lands and extend their dominions.⁹⁵

Once the horse was despatched, songs were sung to celebrate the horse's new-found home. The meat would be eaten and a prosperous year would soon be ushered in if the gods were happy with the sacrifice. The loss of one horse was not really viewed as a loss, for it did not die. And the blessings resulting from the sacrifice would easily compensate. While the Āryans' horse sacrifice may at times appear gruesome, the reader should remember, as the Āryans themselves did, that there was a more noble side to this act. This is an act of sacrifice on their part to greater beings whom they trusted in for their daily cares. No sacrifice could really recompense the creation which these invisible beings had given to the tribes of the earth, and that included the creation of that most noble of animals, the horse, to which no other for the possession of good qualities could be esteemed, compared or equalled.

95. iv.38.10.

CONCLUSION

The darling and companion of the hero, the delight of the poet: such is the picture presented by the Indo-European peoples of the horse. Though they were widespread in their wanderings and settlements, they yet continued to have a common interest: an interest in the horse. The horse goes wherever they go, for it is unthinkable that a people whose love of horses flowed in their blood should be separate from their life's companion. In so much of their thought the horse is present. It plays a major role in myths that are the delight of the poet, and the comparisons in which the horse features are many.

Seldom has an animal attained such prominence. It makes its abode with kings and princes, declares the future of nations and the fate of men, and sheds tears at its master's death. It strides into the battle with a boldness that surpasses the most belligerent of the human race and tosses its head high in the air when victory is attained. Conversely, it is dejected when conquered and yearns for freedom and the spoils of victory.

The attribution of human qualities is perhaps foremost represented in the horse. This is by no means a recent phenomenon. It may be found prominently amongst the Aryan peoples. Much of what the Aryans attributed to the horse may today appear nonsensical, but that is hardly grasping the intended meaning that these peoples hoped to convey. This was the intense love of these peoples for the animal: a feature they possessed in common and a feature that entitles them to be called the first true horsemen of the ancient world.

As a people they were doubtless crazy about horses. If the horse was not driving the chariot or being ridden into a battle it was racing furiously around the racing circuit to the loud cries of the spectators. It was accustomed to the taking of spoil from another tribe and expected

to deliver the rider or driver safely back home. Much was expected of the animal and few can deny that it did its utmost to serve its master. It gave much and expected little in return. The demands made upon it could hardly be recompensed. But we do find the Āryans not only praising the animal with kind words but actively seeking and promoting the welfare of the animal.

This is shown by the daily care of the horse. It is kept well-groomed and fed a sufficient supply of barley to satisfy its hunger. In addition, references to "dear companions" suggest well-kept horses. The sacrificer apologizes for any maltreatment committed on the horse during its earthly lifetime, praying that punishment will be withheld. Scarcely would the Ṛgvedic poets heap praises on the beauty of their horses if they were not kept in excellent condition.

Moreover, the very position given to the horse indicates that it was held in high regard and looked on with favour. To the Āryans the horse was not just another beast created by the gods: it was the image of the heavenly on earth. As such it was a gift of the gods to mankind. It therefore deserved special consideration.

This is shown by the fact that the horse alone has a special sacrifice. In the Ṛgveda two hymns are devoted to this sacrifice. It is an offering of the best animal to the best creation of the gods, namely, the sun. Like other nations of antiquity, Ṛgvedic India could have had the horse sacrifice at a special time of the year, namely, spring or new year. That the horse should be sacred to the Indo-Europeans' highest divinity means that there was something special about the horse. We find no other animal dedicated to the gods apart from the horse alone.

To the Āryans the sun is the epitome of perfection. Everything about it excites wonder and awe. It is the house of the hereafter where the gods

also make their abode. From its uprising to its descend on the west there is much mystery. How does it move? Why does it not fall down? Where does it go during the night? The poets ask these questions. The sun, like the horse, is a visible object. But the Āryans also believe in the existence of invisible beings who rule the world. They are responsible for creating the sun, for setting it on a directed path, for creating the course of rivers, and for animating both man and beast.

Out of the sun these beings create the horse. It therefore has attributes of the sun, the preëminent one being swiftness. The sun is believed to be the swiftest traveller of all things, whether living or non-living, in the heavens or on the earth. The horse is the earthly representative of this supreme creation of the gods, and therefore the most fitting sacrifice in its honour. If the horse had not been highly esteemed it would scarcely have been chosen to be an offering to the gods. Only the best could be given to the mighty gods, for if the best was not given, how could the humans expect the gods to lavish blessings on them?

There is yet another piece of evidence to show that the horse is held in high regard by the Āryans. The great gods are, like their human subjects, pictured as being driven by horses. It is true that occasionally other animals—such as the swan, ass, goat—also draw the gods, but the majority of verses declare that the horse is the yoke bearer. It is also the drawer of the sun, though at times the sun is regarded as a courser itself. All of these instances are there to show that the horse is the chosen animal of the gods. No other beast can vie with the horse for nobleness, swiftness, devotion, or love of the battle.

Equally important, few peoples can vie with the Indo-Europeans in the knowledge of horses. They have preserved for us much that will always

remain valuable. True horsemanship starts with an appreciation of the horse's nature. This is fundamental. It is the right foot, or rather hoof, to start with, so to speak. It is important to everyone schooled in the classical method of horsemanship. So great was the emphasis on oneness and singleness of mind that gandharvas and centaurs (half man, half horse) were created. The Ásvins may also reflect this close understanding between horse and man.

Much of what we have and know about horses today comes from the Indo-Europeans. Horses were their life. Especially can all ages benefit from the knowledge that given proper care, love and reward, the horse will be a valuable friend of man. Poets throughout the ages have eulogized the horse for the special qualities that have made it attractive to man.

Famous horses throughout history are invariably associated with important people. Not a few heroes in antiquity had their favourite horse. The fact that the names of some of them have come down to us shows that horses, of all beasts that man has dealt with, have been given individual attention. When his master dies, the horse weeps bitterly: for so close is the kinship between man and horse.

Not only have the Indo-Europeans left for posterity a rich legacy in horses as animals used for service, but also used in other matters. The famed horse-doctors of old, the twins, give us an insight, however brief, into the Āryan medical system. For it may well be true that the early medical systems of many ancient nations had their origins in the observations of animal corpses.

There was ample opportunity for the sacrificial priests to observe the anatomy of the horse. Meticulous care is revealed in the sacrificial-horse hymns in dissecting the bodily parts of the animal. The ribs are enumerated

and organs were exhumed and offered to the many gods. Here was an excellent chance for experimental medicine to begin its studies. It is of interest to note that the Asvins, whose name means "horse possessors", should also be foremost physicians.

The medical system is but one of a number of offshoots that we can learn about when studying the horses of the Indo-Europeans. Excellent insight is also available into the technical skills of the Indo-Europeans. Working by tradition learnt through generations the craftsman knew not by theory but in his eyes and fingers the fitting-together of the parts of the wheel. Here was a craft of great antiquity, and the craftsman's services were in great demand because of the dependence of the Āryans on their chariots for conquests. How elaborate was the organization of chariot-building we cannot tell, but it must have been substantial. Times again the poet prays for protection of the chariot against any calamity. The hands that frame the wheel and the body of the chariot prepare the instruments that enable the Indo-Europeans to range far and wide.

Endued with a noble spirit and proud body, the horse possesses an inclination for the service of man. Whether the horse stands out in an era as a major influence in the society's progress or whether it is merely used as a source of leisure, it has always found admirers. "Horse-power" still lives on as a reminder of a time when the horse reigned supreme; a time when power was not measured merely by the strength of the animal but by the influence it had on the fate of not a few dominions. The physical power of the horse was respected and admired and acclaimed as arising from the gods' powerhouse, the sun, but so too was the capacity of the horse to change people and time. Like time, the horse gallops through the past, traverses the present, and bears headlong into the future. Like time he gallops swiftly on as fleeting human life watches him pass, but around the sacred fires the priests proclaim that the horse will not die, for the darkness of death must give way

to the dawn of time and the uprising once again of the divine steed.

Appendix A

Two Hymns on the horse sacrifice: a translation

1.162 and 1.163

1. mā no mitró váruṇo aryamāyur índra rbhuksā marútaḥ pári khyan/

May Mitra, Váruṇa, Aryaman, Índra, Rbhukṣan, and the Marúts not neglect us;

yád vājino devájatasya sápteḥ pravakṣyāmo vidáthe víryāni.

when we shall announce the heroic deeds in the assembly of the god-descended courser.

2. yān nirñijā rekṣasā pravrtasya ratīm gr̥bhītām mukható náyanti/

When covered with adornment and riches, they bring the sacrificial offering covered with a muzzle;

súpran ajó memyad viśvárūpa indrāpuṣṇóḥ priyám ápy eti páthaḥ.

leading in front, so moves the many-coloured bleating billy-goat, ready to go to Indra and Pūṣan's lovely resort.

3. eṣá chāgāḥ puró ásvēna vājínā pūṣṇó bhāgo nīyate viśvádevyaḥ/

This billy-goat, appointed for all the gods, is led before, along with the winning courser, as a portion of Pūṣan;

abhipriyām yát purolāśam árvatā tvāṣṭed enām sauśravasāya jinvati.

When (they lead the billy-goat) as a delightful offering together with the runner, Tvaṣṭr quickens him to great glory.

4. yád dhaviṣyam ṛtuśó devayānam trír mānuṣāḥ páry ásvām náyanti/

When the men lead the sacrifice-appointed horse three times, according to rule, around the path of the gods;

átrā pūṣṇāḥ prathamó bhāgá eti yajñām devébhyaḥ prativedáyann ajāḥ.

so proceeds firstly the portion of Pūṣan, the billy-goat, who announces the sacrifice to the gods.

5. hótādhvaryúr āvayā agnimindhó grāvagrābhá utá śānstā súviprah/

The Hótr, the Adhvaryú, the Āvayāj, the fire-kindler, the
press-stone operator, and the eloquent singer of praises;

téna yajñéna svaramkṛtena sviṣṭena vakṣānā ā pṛnadhvam.

fill up your bellies with this beautifully-prepared, correctly-
offered sacrifice!

6. yūpavraskā utá yé yūpavāhās caśālaṃ yé aśvayūpāya takṣati/

The post-hewer and post-carrier, and they who carve out the knob
for the horse-post;

yé cārvate pácanam sambháranty utó téṣām abhígūrtir na invatu.

and they who for the runner arrange the cooking utensils,
and whose song of praise we promote.

7. úpa prāgāt sumán me 'dhāyi mánma devānām āśā úpa vītáprṣṭhaḥ/

He is gone to the region of the gods; the straight-backed one; a
beautiful prayer is presented by me.

ánv enam víprā ṛṣayo madanti devānām puṣṭé cakṛmā subāndhum.

The eloquent ṛṣis make great joy after him. We have made him
a good meal with the good relatives of the gods.

8. yád vājino dáma saindānam árvato yá śīrṣanyā raśanā rájjur asya/

The rope and halter of the swift courser, the bridle on the head,
the rope;

yád vā ghāsyā prābhṛtam āsyē tṛṇam sárvā tā te ápi deveṣv astu.

the fodder, the grass (remaining) in the mouth: all this of
you shall proceed to the gods.

9. yád ásvasya kraviṣo mákṣikāśa yád vā svárau svádhítu riptám ásti/

What raw flesh of the horse the flies (have eaten); what still adheres to the sacrificial post (and) hatchet;

yád dhástayoḥ sámítúr yán nakheṣu sárva tá te ápi deveṣv astu.

what (clings) to the hand of the dissector; what to the fingernails: all this of you shall proceed to the gods.

10. yád úvadyam udárasypāvátí yá amásya kraviṣo gandhó ásti/

Whatever contents of the stomach and entrails; of the abdomen; what has evaporated; the smell of raw flesh;

sukrtá-tác chamitārah kṛvantūtá medham śrtapākam pacantu.

all (of this) shall the dissectors make aright, and they shall make the animal-offering well-cooked on the fire.

11. yát te gátrād agnínā pacyámānād abhí súlam níhatasyā vadhāvati/

whatever part of (your) body is being well-cooked with fire; when you drip down sticking on the spit:

mā tád bhūmyā ā śriṣan mā tṛṇeṣu devebhyas tád usádbhyo rātám astu.

that shall not remain lying on the earth; not on the grass.

12. yé vājínam paripásyanti pakvám yá im āhuh surabhír nír haretí/

They who inspect the racer (which is) well-cooked, say, it is sweet-smelling, take it away!

yé cārvato mānsabhikṣām upāsata utó téṣām abhígūrtir na invatu.

and they wait on a prayer for the flesh of the courser; whose hymn of praise shall benefit us.

13. yán níkṣaṇam māṅspácanyā ukháya yá pátrāṇi yūṣṇā āsecanāni/

The probing—rod of the cooked flesh; the cooking-pot for the pouring-in of the broth;

ūṣmanyāpidhānā carūṇām āṅkāḥ sūnāḥ pári bhūṣanty áśvam.

the bowl; the steaming covering of the cauldron; the hook; the woven basket, serve the horse.

14. níkrāmaṇam niṣádanam vivártanam yác ca pádbīśam árvataḥ/

The treading, lying-down, galloping, and hobble of the courser;

yác ca papau yác ca ghāśīm jaghāsa sárva tá te ápi devéṣv astu.

what he has drunk and what food he has eaten: all this of you shall go to the gods.

15. mā tvāgnír dhvanayīd dhūmāgandhir mókhā bhrājanty abhí vikta jághriḥ/

You shall not be covered with the smell of smoke; the glowing copper, when splashing, shall not tip over;

iṣṭām vītām abhígūrtām váṣatḥkr̥tam tám devāsaḥ práti gr̥bhṇanty áśvam.

the gladly-received sacrifice, when extolled with váṣat, do the gods take the blessed horse in gratitude.

16. yád áśvāya vása upastr̥ṇānty adhīvāsám yá híraṇyāny asmai/

The covering, which was laid over the horse; the gold ornaments which (covered) him;

sāmdānam árvantam pádbīśam priyā devéṣv á yāmayanti.

the halter (and) hobble: these dear objects of the courser shall go to the gods.

17. yát te sādé máhasā súkṛtasya pārṣṇyā vā kásayā vā tutóda/

When someone in the saddle has spurred you on with excessive urging with the heel or with the whip;

srucéva tā havíṣo adhvaréṣu sárva tā te bráhmanā sūdayāmi.

all that I make good to you with an offering, as with an offering at a religious feast.

18. cáustrīṣad vājīno devābandhor vāṅkrīr ásvasya svádhitih sám eti/

The axe reaches the courser: the thirty-four ribs of the god-related horse;

áchidrā gātrā vayúnā kṛṇota páruṣ-parur anughúṣya ví śasta.

prepare this body's members whole, calling out aloud as joint by joint is dissected.

19. ékas tvaṣṭur ásvasyā viśastā dvā yantārā bhavatas tátha ṛtuh/

One is the dissector of the horse of Tvāṣṭr: there are two drawers, such is the rule;

yā te gātrāṇām ṛtuthā kṛṇomi tā-tā piṇḍānām prá juhomy agnau.

those of your members that I prepare properly, so many lumps do I pour into the fire.

20. mā tvā tapat priyā ātmāpiyantam mā svádhitis tanva ā tiṣṭhipat te/

Your dear life shall not be tormented when you die; the axe shall not cause your body permanent injury;

mā te gṛdhnúr avisastātihāya chidrā gātraṇy asinā mīthū kaḥ.

There shall not be a hasty, incompetent dissector incorrectly handling the broken members (of your body).

21 ná vā u etān mriyase ná riṣyasi devān id eṣi pathībhiḥ sugēbhiḥ/

Truly you do not die in this world; you do not take injury; to the gods you go on well-travelled paths;

hārī te yūñjā pṛsatī abhūtām upāsthād vājī dhurī rāsabhasya.

The bay steeds, the speckled ones, are your yoke partners; the racer was placed at the pole of the ass.

22. sugāvyaṃ no vājī svāśvyam puṃsāḥ putrān utā viśvāpuṣaṃ rayīm/

Rich in cows (and) rich in horses; manly sons and well-provided treasure (shall bring) us the war-horse;

anāgāstvāṃ no āditiḥ kṛnotu kṣatrām no āsvo vanatām havīṣmān.

guiltlessness shall Āditi procure for us; sovereignty shall procure for us a sacrificially-provided horse.

1. yád ákrandaḥ prathamám jāyamāna udyán samudrād utá vā púrīṣāt/

As soon as you were born you neighed; rising from the sea or from the fountain (of life);

śyenásya pakṣā harinásya bāhū upastútyam máhi jātám te arvan.

(with) wings of an eagle and the forelegs of a gazelle; (that was) your praiseworthy high birth-place, you runner.

2. yaména dattám tritá enam āyunag índra eṇam prathamó ádhy atīṣṭhat/

Tritá yoked him as a gift of Yama; Indra mounted him for the first time;

gandharvó asya raśanām agrbhñāt sūrād áśvam vasavo nír ataṣṭa.

the gandharvas took hold of the reins; out of the sun the gods formed the horse.

3. ási yamó ásy ādityó arvann ási tritó guhyena vraténa/

You are Yama, you are Āditya, O runner; you are Tritá through the hidden ordinance (of the gods);

ási sómena samáyā víprkta āhús te trīṇi diví bāndhanāni.

you are in like manner not divided from Sóma; they say that in heaven you have three ties.

4. trīṇi ta āhur diví bāndhanāni trīṇy apsú trīṇy antáh samudré/

Three ties, they say, you have in heaven, three in the water, three in the sea;

utéva me váruṇas' chantsy arvan yátrā ta āhuḥ paramám janíttram.

you appear like Váruṇa, you runner, there where, they say, your highest birthplace (is).

5. imā te vājinn avamārjanānīmā śaphānām sanitur nidhānā/

There is your swimming place, this is the place where your
hoof is set;

ātrā te bhadrā raśanā apāśyam ṛtāśya yā abhirākṣanti gopāḥ.

here I saw your beautiful reins, where the guardians of order
watch over.

6. ātmānam te mānasārād ajānām avo divā patāyantam patāṅgam/

With the mind I recognized from a distance your spirit, the
bird, which flies beneath the heaven;

śīro apāśyam pathībhiḥ sugēbhir areṇubhir jēhamānam patatrī.

I saw (your) form on easily-travelled, dustless paths; the
winged-one.

7. ātrā te rūpām uttamām apāśyam jīgīṣamānam iśā ā padé gōḥ/

Here I saw your highest form; how in the place of the cows you
seek the winning of food;

yadā te mārto ānu bhōgam ānal ād id grāsiṣṭha ośadhīr ajīgaḥ.

as soon as the mortal has filled his appetite, the greatest
devourer has gobbled up the plants.

8. ānu tvā rātho ānu māryo arvann ānu gāvó 'nu bhāgaḥ kanīnām/

After you, O runner, follows the chariot, after you the
stallion, after you the cows, after you the happiness of the
young woman;

ānu vrātāśas tāva sakhyām īyur ānu devā mamire vīryam te.

after you the hosts follow for friendship; the gods have not
equalled your strength.

9. hīraṇyāśṛṅgó 'yo asya pádā mánojavā ávara índra āsīt/

With golden horns, bronze(?) hoofs, swift as thought; Indra lags behind;

devā́ id asya havirádyam āyan yó árvantam prathamó adhyátiṣṭhat.

the gods came to the sacrificial meal; who was the first to mount the horse.

10. ĩrmāntāsaḥ sílika madhyamāsaḥ sám sūramāso divyāso átyāḥ/

The strong(?) heavenly racers, some of whom are standing still, while the ones in the middle are moving;

haṅsā́ iva śreṇiśó yatante yád ākṣiṣur divyám ájmaḥ áśvāḥ.

they move in a row like swans when the horses move on the heavenly track.

11. táva śārīram patayiṣṇv arvan táva cittám vāta iva dhrájīmān/

Your body is flying, O runner, your spirit is rustling like the wind;

táva śrṅgāṇi viṣṭhitā purutrāranyeṣu járbhurānā caranti.

your horns are spread in many places; they are moving rapidly to and fro.

12. úpa práḡac cháśanam vājy árvā devadrícā manasā dídhyanāḥ/

He has stepped out to the field of battle, the quick runner; with thoughts turned god-wards;

ajāḥ puró nīyate nābhir asyānu páścāt kaváyo yanti rebhāḥ.

the billy-goat is led out in front, his kin; the eloquent singers move behind.

13. úpa prāgāt paramām yāt sadhástham árvāñ áchā pitáram mātáram ca/

He has gone to the highest abode, the courser to his father
and mother;

adyā devāñ júṣṭatamo hí gamyā áthā sáste dāsúṣe váryāni.

today may he go to a reception with the gods, and then he
praises the gifts for homage to the gods.

Appendix B

The Chariot of the Asvins

The normal war chariot, which was also used for racing, was a two-wheeled vehicle. The chariot of the Asvins, however, is a three-wheeled vehicle with space for three. What kind of a vehicle is this?

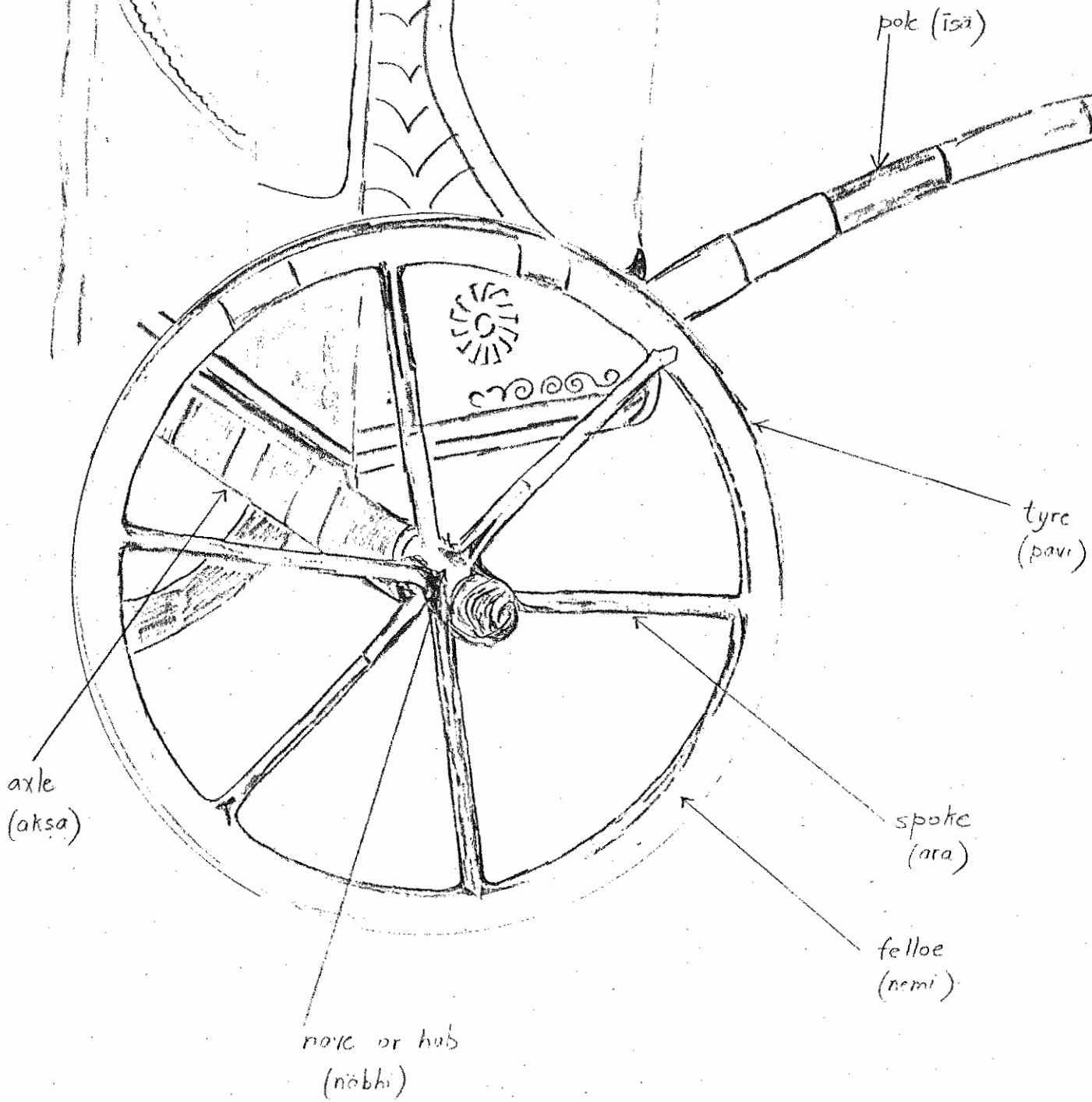
A Vedic poet asked just this question. Where would the two Asvins stand to make way for the third occupant, Sūryā? The two visible wheels which are seen are probably the sun and moon. The hidden wheel, or the third one, which cannot be seen by ordinary mortals¹, is the year.

Hence, this vehicle may only be a mystical object that did not really exist. This arrangement is a part of the speculation of the priests of how the young sun(Sūryā), a female, fits into the new world of spring, represented in the persons of the Asvins.

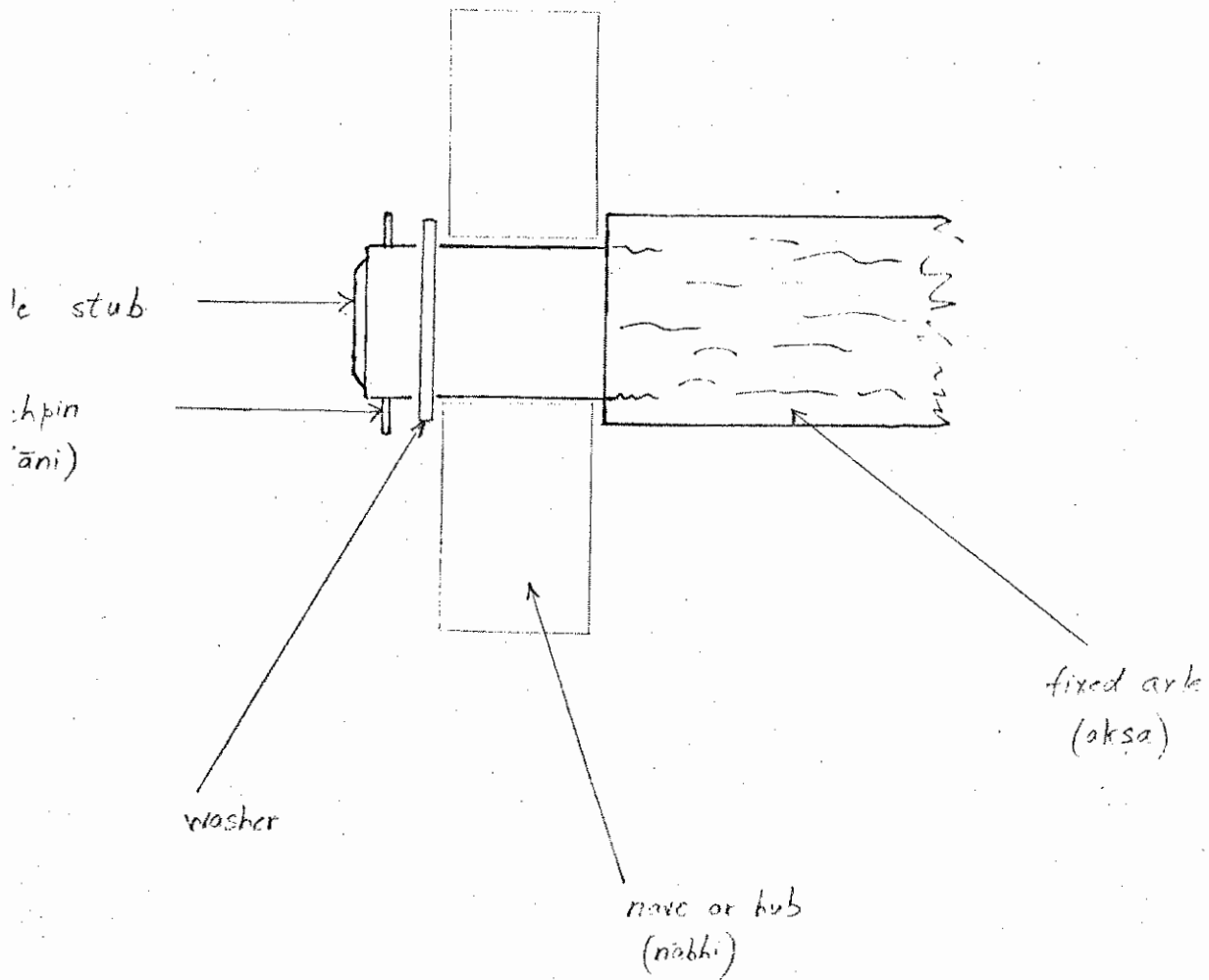
1. dvé te cakré sūrye brahmāna rtuthā viduḥ/ áthalkāṁ cakráṁ
yád gūhā tád addhatāya íd viduḥ. cf. 1.164.12,13.

Appendix C

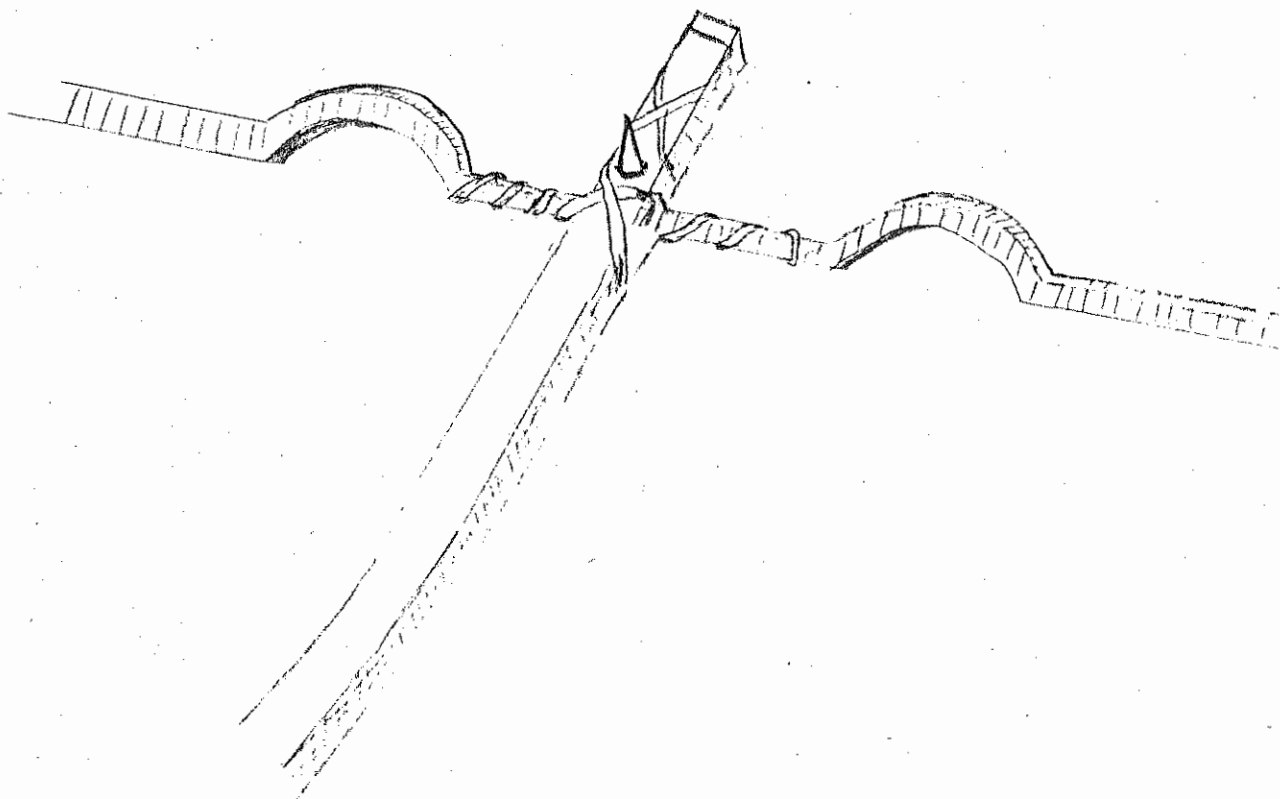
SOME SKETCHES OF THE HARNESS AND CHARIOT WHEEL



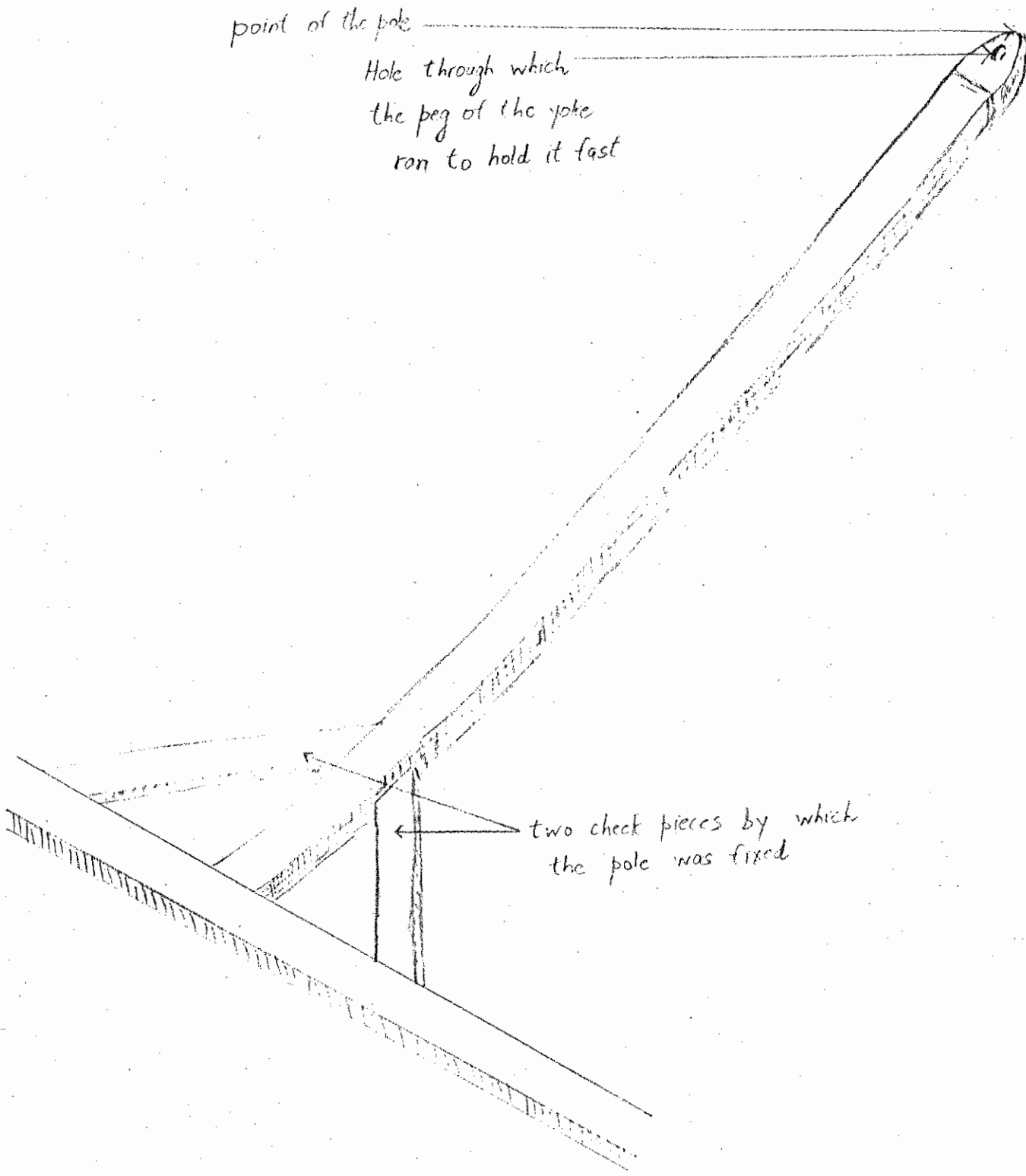
FREEHAND SKETCH OF THE CHARIOT WHEEL WITH PART OF BODY AND POLE ALSO VISIBLE. THE NAMED PARTS ARE IN VEDIC AND ENGLISH.



CONNECTION BETWEEN NAVE AND AXLE, BASED UPON A DIAGRAM IN
 J.G.LANDELS, ENGINEERING IN THE ANCIENT WORLD, LONDON, 1978,
 p.182.



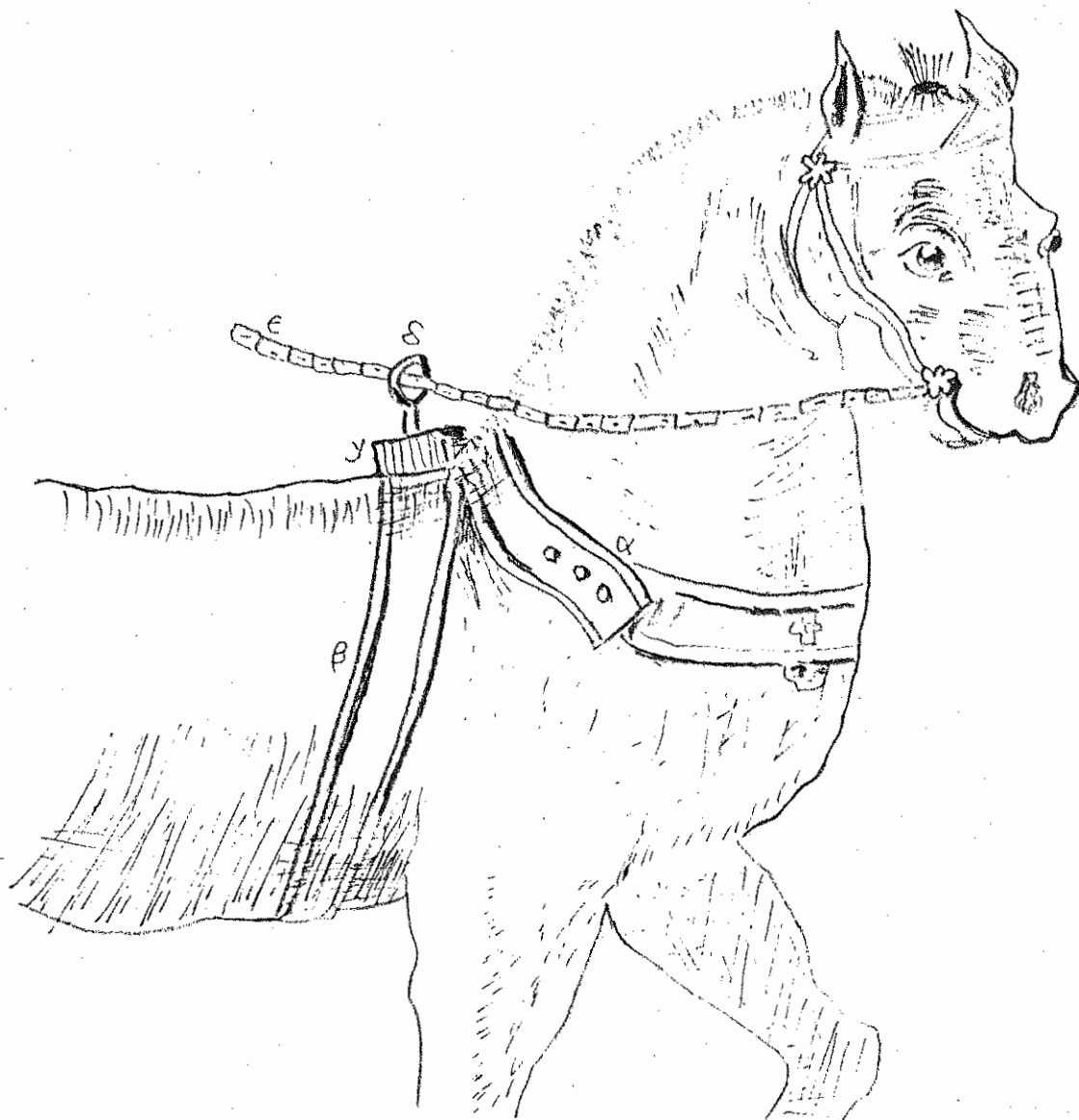
HOW THE YOKE AND POLE WERE JOINED BY MEANS OF A THONG. BASED UPON
A DIAGRAM IN RICHARD BERENGER, THE HISTORY AND ART OF HORSEMANSHIP,
LONDON, 1771, VOLUME 1, PLATE 9.



point of the pole
Hole through which
the peg of the yoke
ran to hold it fast

two check pieces by which
the pole was fixed

THE POLE OF THE CHARIOT, BASED UPON A DIAGRAM IN RICHARD BERENGER,
THE HISTORY AND ART OF HORSEMANSHIP, LONDON, 1771, VOLUME 1,



The Collar harness

a Collar

b Body girth

y Section of Yoke laying upon withers

s How the reins run through the rings of the yoke

e The Reins.

FREEHAND SKETCH OF THE HARNESS OF THE HORSE AS RECONSTRUCTED FROM ANCIENT EVIDENCE. THIS INFORMATION IS ALSO BASED UPON A DIAGRAM IN RICHARD BERENGER, THE HISTORY AND ART OF HORSEMANSHIP, LONDO, 1771, PLATE 9.

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