

## ASSYRIAN CHARIOTRY AND CAVALRY\*

Duncan Noble — Herefordshire

The intention in this article is to examine the development of the use of chariots and cavalry by the Assyrians in battle during the Neo-Assyrian Period. It is generally accepted that the Assyrians in the time of Ashurnasirpal II in the 9th century B.C. used principally chariots as their shock arm, because the cavalry was technically weak. Then, by the 8th and 7th centuries, from the reign of Sargón II to that of Ashurbanipal, the cavalry had become effective as skill at riding increased, and was supplanting chariotry as the principal mobile and shock arm.

Here we now wish to go further than this and suggest, as a result of a re-interpretation of the pictorial and textual evidence, that after the reign of Sargon II, who died in 705 B.C., the Assyrians, far from merely adopting more cavalry at the expense of chariotry, stopped using chariots to any effective extent in battle. At the same time, it is submitted, they retained chariots in their military inventory for another 73 years, to the end of their empire. Reasons will be suggested for the abandonment of the use of chariots in the forefront of battle, and at the same time ideas put forward about why the Assyrians kept on building bigger and bigger models of these expensive vehicles which were rarely used in battle.

It is possible that the horse appeared in Mesopotamia at the end of the Sumerian Early Dynastic Period, but its first employment in numbers was in Akkadian times. They were presumably ridden as well as driven, and evidence for horses' being ridden is plentiful by the Old Babylonian Period in the 19th century. But with no saddles, only saddle cloths, and no stirrups, riding was an insecure business, and the pictorial

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evidence suggests that a secure forward seat was not developed for many centuries, not till after the reign of the Assyrian king Shalmaneser III, in the ninth century. Driven chariots rather than ridden horses were the principal shock arm of Western Asiatic armies when the Assyrians came to prominence as a military power in the last centuries of the second millennium B.C.

This chariot was a light one, fast and manoeuvrable, drawn by two horses and with a crew of two, driver, and archer. It was very suitable for charging against an enemy to break his battle line, passing through the fifty metre beaten zone of the enemy's missiles in perhaps four seconds. But it was deficient in proportion to its cost as a weapon platform for delivering arrows and provided little protection for the crew. This choice, this dilemma, whether to opt for speed or missile power existed throughout the era of chariots, and has remained to haunt the designers of military fighting vehicles and warships to this day.

The first picture we have of chariots from the Neo-Assyrian Period comes from the reign of Ninurta-Tukulti-Aššur in the 12th century<sup>1</sup>. It appears in a seal impression on a tablet from Aššur. The vehicle, drawn by two horses, has a light openwork body and is manned by a crew of two. It could be used for fast skirmishing and charging. A similar light chariot appears on the White Obelisk from Nineveh<sup>2</sup>, dated probably to the reign of Ashurnasirpal I (1049-1031 B.C.), a hundred years later. Here it should be pointed out that the charge of Assyrian chariots on unbroken infantry is never shown on reliefs, only the pursuit of a fleeing enemy. Excited horses will barge at a gallop though gaps between people, but they will not face an unbroken line. The writer has tried. Having an acute sense of self preservation, his horse ran out. What successful cavalry and chariotry commanders have done throughout history is to wait till the enemy is on the verge of breaking and running, and then charge. If the attacker is fortunate, the sight of the approaching horses makes the enemy decide to run for it, and the pursuing cavalry cuts him down from behind; and the reliefs show that this is what the Assyrians did. We know from the later, better documented, history of cavalry that if the attacker has misjudged the mettle of the enemy, his troopers find themselves either milling around within range of the enemy's missiles or brought to a halt and surrounded and outnumbered by the enemy infantry who make short work of horse and man.

The next evidence for chariots is textual, from the annals of Adad-Nirari II (911-891 B.C.). In the eponymy of Dūr-Māte-Aššur he carried off multitudes of chariots

<sup>1</sup>) AfO 10 (1935-36), p. 49, Abb. 4; T. Madhloom, *The Chronology of Neo-Assyrian Art*, London 1969, Pl. V, 2a.

<sup>2</sup>) The White Obelisk. Nineveh. London, BM 118807 (Madhloom, *op. cit.*, Pl. I, 1.); M.A. Littauer - J.H. Crowell, *Wheeled Vehicles and Ridden Animals in the Ancient Near East*, Leiden 1979, fig. 41.

from Hanigalbat<sup>3</sup>. He said that when preparing for his sixth campaign, against Hanigalbat, he mobilized his chariots and horses in Nineveh<sup>4</sup>.

The next pictorial evidence comes 148 years after the reign of Ashurnasirpal I, from the reign of Ashurnasirpal II (883-859 B.C.). He was the first Assyrian king to leave the detailed reliefs<sup>5</sup> which tell us so much about Assyrian warfare and hunting and from then on we have an abundance of evidence on the construction of chariots, and a fair idea can be gained of their tactical use in battle, and the tactical employment of cavalry.

Ashurnasirpal II's chariots were heavier than the earlier ones and gave more protection to the crew. The number of horses used is uncertain. Three are shown on the reliefs and over the years there has been a great and long-running controversy about the accuracy of this into which it is not the intention to enter here, as it does not affect the theory which is being put forward now.

His chariots are shown in battle, pursuing fleeing enemy forces at a gallop<sup>6</sup>. The crew has been increased to three — driver plus two archers. This increased missile power necessitated a larger chariot, larger horses, and more horses. This was doubtless at the expense of speed. Here it should be pointed out that four horses are not faster than two, and larger horses are only faster than small ones to a certain size. Beyond that, they are slower. Speed is governed by the length of the animals' legs, their power to weight ratio, and the speed at which their muscles contract. What increasing the number of animals does do is to extend the daily range of the vehicle.

In his annals Ashurnasirpal twice says<sup>7</sup> "I mobilized my chariots and armies". About his mobilization for his fourth campaign he says: "I did not wait for my chariots. I departed ...". In his fifth campaign he captured 460 yoke horses and chariots and yokes of horses. So clearly the chariot arm was an important part of the armies of Assyria and her enemies. On Ashurnasirpal's reliefs we can also see his cavalry in action<sup>8</sup>. The standard of riding was low. The riders sit with their knees drawn up and their heels pressed back, the classic shallow insecure seat of the beginner who hopes thereby to cling onto his mount with his lower legs. It contrasts with the deep secure seat of the Assyrian cavalymen seen on reliefs from the reign of Tiglath-Pileser III (745-727 B.C.) onwards. The troopers worked in pairs, a spearman and an archer. When the archer went to shoot, the spearman alongside held the archer's horse's reins for him. They even

<sup>3</sup>) Luckenbill, *ARAB*, p. 111.

<sup>4</sup>) *Ibid.*, p. 114.

<sup>5</sup>) R.D. Barnett - M. Falkner, *The Sculptures of Aššur-Nasir-Apli II (883-859 B.C.), Tiglath-Pileser III (745-727 B.C.), Esarhaddon (681-669 B.C.), from the Central and South-West Palaces at Nimrud*, London 1962; Y. Yadin, *The Art of War in Biblical Lands*, London 1963.

<sup>6</sup>) Yadin, *op. cit.*, pp. 382-3.

<sup>7</sup>) Luckenbill, *op. cit.*

<sup>8</sup>) Yadin, *op. cit.*, pp. 384-5, 456.

charged like this, but one cannot imagine that they had a high degree of manoeuvrability or sure shooting.

The chariots of Shalmaneser III (858-824 B.C.) in the 9th century, as seen on the bronze reliefs on the Balawat Gates<sup>9</sup>, are like Ashurnasirpal II's, of medium weight. The only difference is the reversion to a team of two horses and a crew of generally two, sometimes three. They pursue fleeing enemies, driving into the midst of them so that the archers can shoot them down. In his annals Shalmaneser makes several references<sup>10</sup> to mobilizing his chariots. In his 18th campaign, against Hazael of Aram, he captured 1,121 of that ruler's chariots, and 470 of his cavalry. In the battle of Qarqar he faced nearly 4000 chariots of the Syrian coalition. So chariotry was still the superior and larger arm.

Why did the Assyrians change from the light chariot of the second millennium to the heavier three man chariot of Ashurnasirpal II and Shalmaneser III? We do not know. The bigger one carried more missile power and was perhaps a more stable weapon platform. But throughout military history we see a steady increase in the weight and armament of military matériel. Light cavalry has always turned into heavy cavalry, particularly immediately after a war. Generals try to ensure against every eventuality and load matériel with weapons and modifications till it can no longer perform its original function. Also, heavy cavalry, and chariotry, are more impressive and increase commanders' feelings of power. Was this historical process starting with Assyrian chariots under Ashurnasirpal, until it reached its conclusion with Ashurbanipal, when, we shall shortly suggest, chariots had been enlarged to such an extent that they had become militarily useless?

Shalmaneser's cavalry, as portrayed on the Balawat Gates reliefs, is shown on the march<sup>11</sup>. The horses are in pairs, with a soldier riding one and leading the other. He carries a bow and a short stabbing spear. We do not know where the other rider is. A suggestion which could be made, for which it is admitted there is no proof, is that the other rider was primarily an archer and his horsemanship was so poor that, except in battle, he preferred to walk. It may sound far fetched, but the evidence of the reliefs for this period is that Assyrian horsemanship was so poor that no possibility can be disregarded. The mounted cavalryman rides with his knees up like those of Ashurnasirpal's reign, so it is very probable that in battles he still held the archer's reins. On the Balawat Gates it is chariots which form the pursuit in battle, so the chariotry was probably still the principal arm<sup>12</sup>.

<sup>9</sup>) Yadin, *op. cit.*, pp. 402-3.

<sup>10</sup>) Luckenbill, *op. cit.*.

<sup>11</sup>) Yadin, *op. cit.*, pp. 402-3.

<sup>12</sup>) *Ibid.*.

We have little useful evidence from the reigns of the next few kings. Shalmaneser's successor, Shamshi-Adad V (823-811 B.C.), at the battle of the Daban River captured 100 chariots and 200 cavalry, a preponderance of the latter. But this is an isolated incident and may not be illustrative of the current balance between chariots and cavalry. Chariots must still have been used in battle in numbers.

A relief of Tiglath-Pileser III<sup>13</sup>, (745-727 B.C.), forty years later, shows the King in his chariot pursuing fleeing enemy forces. We have no pictures of what we might call 'line chariotry' in action from this reign. The cavalry soldiers portrayed on the reliefs of his which we have are few, and are spearmen who do not carry bows, although horse archers must surely have existed. The spearmen ride with their legs stretched out, with a deep, more secure, seat. This is a new, important, development which must mark the beginning of an effective cavalry arm. It is pity that the gap in the pictorial evidence prevents us from saying whether this was also the beginning of horse archers who were not dependent on a horse holder.

The chariots on the reliefs of Sargon II<sup>14</sup> (721-705 B.C.) from Khorsabad, with a three man crew, differ little in essentials that would affect their operation from earlier ones. They were definitely used in charges in battle by troops and not just the king, the first evidence for this in the 103 years since Shalmaneser III.

The cavalry on the war reliefs of Sargon from Khorsabad are all shown charging with spears, but most of them also carry bows in cases. Here we have the first sign in Assyria with cavalry of that tendency, already detected, we have suggested, in chariotry, and seen throughout the history of warfare for light troops to become heavy. They must have used the bows from their horses' backs. An innovation in the horses' saddlery which lends plausibility to this supposition is the large tassel which now appears for the first time hanging from the reins immediately in front of the horses' chest. Anderson<sup>15</sup> makes the reasonable suggestion that this would have served to keep some weight on the reins when the rider let the reins go so that he could shoot his bow, and so make the reins less likely to slip over the horse's head. This tassel continues in use in the reigns of Sennacherib (704-681 B.C.) and Ashurbanipal (668-626 B.C.), when we know from the reliefs that horse archers had a deep firm seat and used the bow at a gallop without a rein holder. So it is a reasonable conclusion that Sargon's horse archers had enough control of their animals to shoot at the gallop without an attendant rein holder. The horse archers of Sennacherib and Ashurbanipal also had caparisons covering their horses, which would have protected them to some extent from arrow wounds. This advance in the technology of horse furniture leads us to think that the Assyrians were

<sup>13</sup>) Barnett - Falkner, *op. cit.*, Pls. XV and XVI.

<sup>14</sup>) Yadin, *op. cit.*, pp. 416-7, 419-20.

<sup>15</sup>) J.K. Anderson, *Ancient Greek Horsemanship*, Berkeley and Los Angeles 1961, p. 12.

now more acutely concerned to avoid losses in horses. With the continual wars and increasing power of neighboring hostile states they were probably finding horses more difficult to obtain.

The chariots of Sennacherib and Ashurbanipal are much larger than those of the kings who went before. They have huge wheels, nearly as big as a man. There are four horses in a team and they are for the first time as big as a modern adult's riding horse<sup>16</sup>. Sennacherib had a driver and two others in his crews and Ashurbanipal increased this to a driver and three.

What we now suggest is that from Sennacherib to Ashurbanipal, for ninety years of the height of Assyrian power, the evidence both pictorial and textual, with two exceptions, leads us to believe that chariots were not used in battle at all. Cavalry had taken over their function. But chariots remained on the strength. The King's chariot appears numerous times, with him aboard or nearby, after the battle. The exceptions are a relief in the Louvre showing chariots of Ashurbanipal in action, and a similar relief in Berlin<sup>16</sup>. In the Louvre relief the chariots are well to the rear, behind the horse archers who back up the slingers. They must have been well back from involvement with the enemy, and they are an exception to the general pattern of chariots not appearing in battle. The Berlin relief is a fragment of a slab, and shows only the chariot and its team. In the background is a river, so it was probably a war scene, but nothing more can be said about it.

The later Assyrian kings, from Sargon II to Ashurbanipal, make numerous references in their annals to their personal chariots and the ingenuity with which they were manhandled across rough terrain. Indeed they accompanied their troops into battle on their chariots. We know from both Sargon's reliefs at Khorsabad and his annals that he had a chariot arm in his army and the vehicles were used in charges in battle. But when one looks at his figures for the capture of enemy chariots one gets the feeling that as fighting vehicles chariots were in decline. In his fifth year Sargon captured 50 chariots from Carchemish, but thereafter he never again mentions taking chariots. In his 12th campaign, against Marduk-apal-iddina, he captured 600 cavalry, 400 foot, but no

<sup>16</sup>) I am indebted to Mrs M. A. Littauer for drawing my attention to the fact that the 'Great Horses' of the end of the Assyrian Empire were not large by modern standards. By comparing the size of Sennacherib's chariot horses on the relief of the Battle of Lachish with that of his attendants she calculates the horses to be 14 hands to 14 hands 2 inches high (142-147 cms). This is the size of a modern light adult's or teenager's pony. I have applied this method to representations of earlier Assyrian horses and they would appear to be rather smaller, those of Ninurta-Tukulti-Aššur being about 10 hands high (102 cms), the size of a mountain pony. It is possible that the increase in size was gradual and that the term 'Great' was a comparative one.

<sup>17</sup>) (a) Louvre. Chamber T. AO 19.909 (C.J. Gadd, *The Stones of Assyria*, London 1936, p. 204, Pl. 44; Yadin, *op. cit.*, p. 452). (b) Berlin Museum. VA 961 (A. Paterson, *Analysis of the Palace of Sennacherib, King of Assyria, B.C. 705-681*, The Hague 1915, Pl 100; Gadd, *op. cit.*, p. 218; Littauer - Crouwel, *op. cit.*, fig. 56).

chariots. Perhaps, although Carchemish and Assyria did have chariots, they were a weapon of decreased importance and no longer used in great numbers.

Sennacherib and his successors mention their personal chariots, but not a chariot arm in their army. In Sennacherib's first campaign<sup>18</sup> in 704 B.C. he captured the chariots of Merodach-Baladan which had been left behind at the outset of battle. They must surely have been either prestige vehicles, or battle chariots left out of battle as being no longer of military value. There is a mention in a treaty of Esarhaddon<sup>19</sup> (680-669 B.C.), sealed in 672, of chariots being spattered with blood. But this is not good evidence for the use of chariots in battle. It appears in a curse in one of his vassal treaties, where he says that the chariots of a breaker of the treaty will be covered in blood like this chariot. But the treaty would not have been signed on a battlefield and no doubt in a theatrical gesture a specially blood stained chariot was produced at the signing ceremony as a terrible warning.

Ashurbanipal learned to drive chariots and presented them as gifts, but the huge chariots on his reliefs appear, except for the exceptions of the Louvre and Berlin reliefs, only in hunting scenes. They would have been very suitable for hunting, providing a large platform for shield bearers to protect the king. Their five feet diameter wheels raised the hunters so that the lion had to expose its belly in its spring. They cannot have been fast. As a lion covers the first hundred yards in five seconds, speed was not necessary in the chariot. But this vehicle had limited military application. It was too slow for skirmishing and pursuit. It had a crew of four, driver, archer and two shield bearers. This is a crew suitable for lion hunting, but a ridiculously small missile power in battle for the cost of the vehicle. One might well come to the conclusion that these were hunting chariots, designed expressly for hunting, pressed into military service in an emergency. The reasons why Sennacherib and Ashurbanipal increased the size of their chariots were not military, but prestige and sporting.

The last evidence, therefore, for the Assyrian use of chariots in the thick of battle is from the reign of Sargon II. We do not know why the kings stopped using them in action. Possibly the continual wars caused a drain of casualties in horses and men which made committing chariots to the thick of battle unacceptable, while cavalry was cheaper, carried more armament per horse, and was more useful in mountainous country. Letters<sup>20</sup> of Ashurbanipal suggest strongly that at that time the Assyrians had a shortage

<sup>18)</sup> D.D. Luckenbill, *The Annals of Sennacherib*, Chicago 1924, p. 24: Col I, ll. 25-27.

<sup>19)</sup> D.J., Wiseman, *The Vassal Treaties of Esarhaddon*, ll. 612-615 (cf. now *SAA II*, p. 55, ll. 612-615).

<sup>20)</sup> *CAD A/1*, s.v. *appatu*. An illustration of the use of this word for chariot is taken from Ashurbanipal's account of how he deported from Elam, among others, the charioteers and third-men-on-the-chariots. *ABL 304*: a local commander or official has asked the King to allow prisoners to be drafted into the Assyrian army as charioteers, messengers and cavalymen. The King refuses. They are to die. This sounds like the eternal clash of interests between the man on the spot and the policy maker.

of trained riders and drivers. It has been suggested on one interpretation of a document that Sargon II died in battle in 705 B.C.. If so, he would most likely have been in his chariot. In that case, and it is admitted that this is surmise, it is not beyond possibility that while the Assyrians at the time accepted that chariot units had big losses among their crews, it was such an event as the death of Sargon that was needed to bring home to kings that their function was to direct battles, not die in the front rank. So tactics were changed and there were no more chariot charges.

But the Assyrians retained their chariots till the end of the empire. Three reasons for this come to mind:

1. Chariots were impressive prestige vehicles. A feature of royal prestige vehicles throughout the ages, from Pu-Abi's sledge at Ur to the Queen of England's coaches, is that they are archaic, suggesting a continuity of power. In ancient Western Asia the chariot driver, the *mukil appāti* in Akkadian, enjoyed a position of considerable profit and prestige. Ashurbanipal boasted in his annals that he had learned to drive a chariot. Horses were not prestige animals, perhaps because lack of a saddle could so easily place the rider in an undignified position, if not on the ground, if his horse played up.

2. They were useful for hunting.

3. Military commanders to this day like large impressive vehicles, ships, planes. They make them feel important. They justify the expense of the armed forces, and the rank which administering them merits<sup>21</sup>.

We should look at the Assyrian army not just in its technical and political aspects, but behind these, to the underlying psychology of the men who ran it. Their use of chariots provides some light on this.

<sup>21)</sup> With these later Assyrian chariots, of little use in battle, one sees an early example of the 'military mind' which maintains obsolete military machinery whose practical use is in inverse proportion to its impressiveness. It has continued in existence ever since. It was known after the Battle of Jutland in 1916 that battleships were vulnerable out of proportion to their cost and that battle cruisers were little better than death traps for their crews, but these imposing leviathans were kept in service as the pride of their owners' fleets through the Second World War. We still have the mounted squadron of the Household Cavalry, and supply soldiers with bayonets and pistols which are of no military use in modern war.