

CHARIOTS OF EARLY GREECE

(PLATES 90-92)

TO understand the harnessing of chariots in early Greece is no slight problem. Actual fragments are few and inconsistent, graphic representations difficult to interpret. In the course of prolonged and sometimes discouraging efforts to identify a curious bronze attachment (Pl. 91, c, d) I have had occasion to review the field, including the magnificent Exekias krater from the North Slope of the Athenian Acropolis (Pl. 92, c). Though my conclusions are tentative, they are offered here among the contributions in honor of the distinguished excavator of the krater, Oscar Broneer, on his eightieth birthday.

Given only a few actual harness fixtures, one finds the plethora of vase illustrations of Geometric through black-figured styles quite bewildering. The fact that the most important parts of the apparatus must be placed where the yoke joins the shaft decrees that they be partially concealed by the bodies of horses. The art grammar of archaic times with its requirement that important objects or parts of objects appear complete in their most striking view (as, in the case of a man, with legs spread in profile and chest in full front) makes for further difficulty, as when a round rein guide is viewed from the side.

The best comprehensive studies of artists' renditions of chariots were offered by Helbig and Leaf in the 80's of the past century.¹ Though ingenious and in many respects correct, their interpretations suffered from the effort to equate the Homeric description of a mule cart in *Iliad*, XXIV, ll. 266 ff., with paintings of racing chariots and battle chariots on vases from Geometric through black figured and with Mycenaean and Assyrian art as well. Today, using our numerous available illustrations from sculpture, vase painting and the minor arts, we can more optimistically face the realities of varied harness types. For, indeed, there had to be more than one way of hitching a quadriga or a biga. Certain parts recur inevitably: traces, yoke, collars, perhaps belts and cushions, shaft, a cord or strap (called the *ζυγόδεσμον* in Homer) connecting the top of the chariot with the shaft's end,² raising it to the height of the

¹ W. Helbig, *Das homerische Epos*,² 1887, pp. 125-156; W. Leaf, "The Homeric Chariot," *J.H.S.*, V, 1884, pp. 185-194. Also F. Studniczka, "Der Rennwagen in syrisch-phönikischen Gebiet," *Jahrb.*, XXII, 1907, pp. 147 ff.; E. von Mercklin, *Der Rennwagen in Griechenland*, Leipzig, 1909; *Der Rennwagen bei der Italiker*, Leipzig, 1909.

² The word *ζυγόδεσμον* means the binder of the yoke and was nine cubits long in the Homeric description of the mule cart (*Iliad*, XXIV, l. 270). Helbig used it for the rope which, doubled in the middle, supported the whole apparatus (*Das homerische Epos*², p. 140, fig. 38) and I have retained the term.

horses' backs and distributing its weight, reins, and guides to direct the reins in knotted lefts and rights to the driver's hands.

The yoke spanned the backs of two horses only, these called the trace horses, separated from each other by the shaft. Usually the trace is concealed for most of its length by the lead horse and reappears behind the rumps, finally attached to the chariot front at half its height. Only when the lead horse is yet to be harnessed can one see the complete trace.³

A single shaft is used even with four horses. The shaft projects from the chariot at floor level and slants upward and bends so its end appears vertical above the backs of the horses; here is the center from which other parts of the harness diverge. The construction is obvious in the case of Geometric vases, with the shaft drawn in one great sweeping stroke across the meager bodies of the horses (Pl. 90, a, late Geometric or "proto-Attic" biga; the same drawing with three or four horses).⁴ Though it would be possible to use a straight shaft and add a separate piece at an angle there is no evidence for such a practice. Curiously, there is no preserved bent shaft on a model chariot.

The yoke, spanning as it does merely the two central horses, is attached to the shaft at a point near the tip, about where the shaft bends to become vertical. Never does the archaic artist succeed in giving the yoke its true length, and the halves of the yoke always appear as short spikes or curved scimitars. The outer ends of the yoke are higher than the center, even if the yoke curves to conform to the animals' backs. Either one half of the yoke or both may be shown and the tip or tips encased in metal or decorated with knobs or fancy ornaments. Sometimes there is a cushion, imagined as being under the yoke. Already we have accounted for the most obvious accumulation of visible parts in a harness scene: a single vertical rod with or without an encasing protection and one or two diverging crooked arms, being the yoke. For a rein guide, the Homeric description specifies a ring attached to the shaft by a pin somewhere near its tip, just at the point where it bends sharply. Helbig and Leaf reconstructed the rein holder as a circle and their drawings of it resemble some vase paintings.

With this elemental knowledge one can understand such a simple scene as Plate 90, c,⁵ a hydria of the Leagros group, showing Herakles and Iolaos riding with

³ A famous example is by the Antimenes Painter, British Museum B304, where the whole harness with the parts for the missing horse are very clear. Beazley, *J.H.S.*, XLVII, 1927, pl. 13 and *Attic Black-Figure Vase-Painters*, Oxford, 1956 (ABFV), p. 266 and *Development of Attic Black-Figure*, Berkeley, 1951, pl. 38, 3 (cf. pl. 36, 2, by Psiax); *C.V.A.*, British Museum 6 (8), III H e, pl. 76 (335), 1.

⁴ Latest Geometric or "Proto-Attic," Metropolitan Museum of Art 21.88.18. G. M. A. Richter, *Handbook of the Greek Collection*, London, 1953, fig. 16, b; *B.S.A.*, XXXV, 1934-35, pl. 50.

⁵ British Museum B320. Beazley, *ABFV*, p. 364; *C.V.A.*, British Museum 6 (8), III, H e, pls. 82 (341), 85 (344).

attendant deities. From a point well forward on the horses' backs three straight sticks diverge, one upward, two at angles, each thickened toward its end by a protecting cap. These sticks are the end of the shaft and the two arms of the yoke forming right angles with the shaft. They are rendered in incised lines against the black of Dionysos' costume. A circle, about half complete, was incised on the black, its center the juncture of the three spikes; it appears to complete itself beyond our view. This circle is the rein guide and one rein from the right near horse enters it, to join with others emerging behind, four or more reins which are knotted into bundles before passing into the capable hands of Iolaos, the charioteer. Tied to the chariot's top edge, just below his hands, is the zugodesmon which extends in an interrupted and not quite straight line to the top of the shaft. Further down on the front of the chariot the trace is tied, and lower still is the shaft, bound with a cord for strength. Intelligible in the light of the preceding is a black-figured lekythos scene (Pl. 90, b).⁶ The shaft tip is highly ornamental—it seems to have a metal sheath like the handle of a dagger. Only half the yoke shows and in front of it is a quarter of the rein guide.

Not all scenes and not all extant fixtures fit this simple pattern. The bronze attachments that are preserved are of two quite different types. Recognized in recent years is a group of three animal protomai found at Olympia in Greece, Kamarina in Sicily (Pl. 91, a) and Hipponion in South Italy.⁷ All three fitted poles and on each head is a projection for attaching a cord; on that from Hipponion it is an iron spike set with lead into a pierced bottle-like projection; on the other two, knobs to which to tie a cord. In publishing the ram from Hipponion, Fuhrmann, in agreement with Schleiff, argued that all three rams were ends of chariot shafts intended to attach to the shaft a cord that held it in position. That the shaft sometimes fell when the cord was released is obvious from the bent condition of the legs of the Hipponion finial, now pressed against the ram's chest.

An additional example is a kid's head, Etruscan, in the Metropolitan Museum of Art (Pl. 91, b).⁸ It belongs to a complete set of chariot revetments and must have tipped the shaft. A small knob on the kid's neck was for tying the zugodesmon. I suggest, and rather timidly, that another example is a bronze Pegasos that has been in the Walters Art Gallery for many years without being understood or appre-

⁶ Museum of Fine Arts, Boston 98.922, H. L. Pierce Fund. C. H. E. Haspels, *Attic Black-Figured Lekythoi*, Paris, 1936, pl. 20, 4b.

⁷ Olympia: E. Kunze and H. Schleiff, *II Bericht über die Ausgrabungen in Olympia* (Winter, 1937-38), *Jahrb.*, LIII, 1938, pp. 120 ff., pl. 53; G.M.A. Richter, *Archaic Greek Art*, New York, 1949, p. 59, fig. 88. Kamarina: *Mon. Ant.*, XIV, 1904, pp. 769-783, pl. XLVI; *Jahrb.*, XXXVI, 1921, Beilage opp. p. 98, no. 31. Hipponion: Fuhrmann, *Arch. Anz.*, 1941, cols. 675 ff. and fig. 148 in col. 678.

⁸ Metropolitan Museum of Art 29.131.3. Richter, *Stud. Etrus.*, XIII, 1939, pp. 433 f., pls. XXXI, 4-6 and *Bull. Metr. Mus. Art*, XXXIV, 1939, pp. 42 ff., fig. 69. Almost identical but without the knob, von Mercklin, *Jahrb.*, XLVIII, 1933, p. 101, fig. 17.

ciated (Pl. 91, c, d).⁹ From a flattened pipe emerge a horse head and neck together with two little bent forelegs and a pair of wings; a protrusion like the mouth of a vase sits on top of the head between an up-combed mane and a venomous snake which coils along the wing's edge and shoots its fangs away from the horse head. Set upon its open end it measures 0.099 m. tall and its hollow base would fit a pole oval in cross section, 0.035 m. in its greater axis, 0.018 m. in its lesser.

One half of the object, the horse's proper right (Pl. 91, c), is fairly clean with the surface shading toward black, while the other side (Pl. 91, d) is deeply encrusted with lumpy green salts. The interior contains fine, powdery green. The eyes are deep hollows and in the right one there remains a bit of shiny transparent glass. Details are conventional though the modeling is odd in some respects. Viewed from the front, straight at the nose, nothing could be more normal but viewing it from the side one sees the boundary line of the jaw merging with a fold of flesh at the side of the nose, creating a strange expression. The teeth, carefully separated, are a perfect set which a man might envy but which no horse could have—for a horse's teeth of the cheek series are separated from the canines by a toothless space, permitting the insertion of the bit by which alone a man can drive a horse. The hooves are tall and cylindrical, with the fringe of hair above them looking quite natural. The hair in its three parts, a bristling mane and an erect forelock from which two locks sweep sidewise between ears and cheeks, is divided by lines crossing one another to form rectangles, a conventional archaic trick. Each wing has two parts, a triangle of pin feathers each with a bordering line, and an outer part of long feathers.

This Pegasus which I cannot assign to its home port but which surely is archaic from the Greek world brings to five the total number of ornamental shaft tips with evidence for the attachment of the zugodesmon. The range, geographically, is from Greece to South Italy to Etruria to Sicily and chronologically from the seventh century (the Olympia ram) to the early fifth (the Hipponion ram). In artistic representations, that is, vase paintings, are such ornaments to be found?

On an amphora from Naxos,¹⁰ Aphrodite and Ares ride in a chariot drawn by two winged horses; harness details are very carefully delineated and include an ornament like a curling stem with a lotus bud rising vertically; the zugodesmon is tied to the stem and tied again to the top front of the chariot. Two slightly later amphoras from Melos have figural tips of the type. Athens National Museum 911¹¹ has three

⁹ Walters Art Gallery 54.882. Purchased before 1931. Despite the curious provincial style I am convinced of the authenticity, because of the patination and the correspondences to these other artifacts.

¹⁰ C. Karuso, *Jahrb.*, LII, 1937, p. 175, fig. 11 (photograph) and p. 177, fig. 12 (drawing). The same drawing, K. Schefold, *Myth and Legend in Early Greek Art*, 1966, fig. 9. Some restoration in the drawing, obviously correct and honestly indicated by faint lines.

¹¹ D. Papastamos, *Melische Amphoren*, Münster, 1970, p. 14, pl. 2 and pl. 19, no. 911 A (detail); E. Pfuhl, *Malerei u. Zeichnung*, München, 1923, III, p. 24, fig. 108.

deities in a chariot drawn by four winged horses. Just behind the horses' necks is a handsome griffin head facing the occupants of the chariot. It seems to be bound to the horse collar and the zugodesmon is omitted, but its purpose is clear. A seated bird is not part of the apparatus. A second Melian amphora gives the detail even more clearly.¹² On a chariot drawn by four winged horses, a duck's head appears at the required point, facing forward. The zugodesmon is visible behind the wings but disappears behind the rumps and fails to reappear to connect with the chariot. A third candidate from seventh-century pottery is an Early Corinthian aryballos in Breslau.¹³ The scale is such that harness details would be difficult to appraise even if the vase were held in one's hand and actually I have not seen even a photograph. The drawing in Saglio's article "currus" shows a complete bird perched on the finial; the bird along with some filling ornaments is omitted from Payne's drawing so that apparently Payne thought the bird had only mystical implications, a sort of soul bird. Was it bronze?

None of these vase paintings of the seventh century B.C. indicates the rein guide and those bronze finials which we listed above give no hint of how this need was supplied. Presumably a simple ring was attached to the shaft by a pin as in the Homeric description and on some vase paintings like our Plate 90, c. However, the Greeks sometimes made use of a bronze rein guide of another type, also widely used in the Orient. A good example comes from Delphi (Pl. 92, a).¹⁴ It is a decorated bar from each side of which a semicircular hoop projects, obviously to guide the right and left reins. It is impossible to determine its date. The top is missing; the bottom consists of a small round plate perforated with nail holes for fastening to something wooden—the yoke or the shaft at their point of juncture. The lost top may have been highly ornamental and a zugodesmon could have been attached there or to the central upright between the rein guides. A much more elaborate bronze also from Delphi (Pl. 92, b)¹⁵ has been recognized as a rein guide. It must date from the Geometric period, to judge from the sculptured shepherd with sheep (?) that crowns it. The bottom is hollow and shaped to fit the shaft tip. Its middle section divides itself into three curving parts, of which one extended backwards, the others sidewise; obviously bunches of reins passed through two sections and were divided by the bar at the rear. This fixture could hold a zugodesmon tied at the top, above the sculptural group, or below it or at the bulging part.

¹² Papastamos, *op. cit.*, p. 49, pl. 8 and pl. 19, 354 (detail); Pfuhl, *op. cit.*, p. 25, fig. 110.

¹³ Daremberg and Saglio, *Dictionnaire*, I, pt. 2, p. 1636, fig. 2207; H. Payne, *Necrocorinthia*, Oxford, 1931, p. 287, no. 481, references, fig. 123 bis and p. 127, fig. 45 A.

¹⁴ M. P. Perdrizet, *Fouilles de Delphes*, V, Paris, 1908, text, pp. 117 f., no. 625, fig. 427; C. Rolley, *Fouilles de Delphes*, V, Paris, 1969, p. 56, note 4 and fig. 18 on p. 55 (position reversed, rightly no doubt).

¹⁵ Photograph Rolley. C. Rolley, *The Bronzes* (Monumenta graeca et romana, ed. H. F. Musche), Leiden, 1967, p. 20, no. 42, pl. XII; P. Amandry, *B.C.H.*, LXII, 1938, pp. 316 f., pl. 35, 1.

Having identified the simple shaft and yoke in vase paintings, with the additional ring to guide reins in some of them (Pl. 90, c) and bronze rein guides which also served to attach the zugodesmon, we may now attempt to interpret the curious assemblage of parts above the horses' backs in the feature picture of the Exekias krater from the North Slope (Pl. 92, c),¹⁶ Herakles with his chariot surrounded by deities all in progress toward Olympos. The complicated set of harness fixtures above the horses' backs is unique. The two little horns that curve upward are the two halves of the yoke, meant to span the backs of the trace horses. Rising highest of all is something like a flag blowing forward, the finial which will keep the zugodesmon from slipping off. On the shaft is what looks like a snake's head and below and to the sides, drawn as if below the yoke, rein guides in the form of half circles. Is it really a snake's head decoration on the finial? Probably not, since there is no sign of body or tail. Probably we have before us an archaic artist's attempt to show that the finial is broad in its lower part, narrow above where the zugodesmon takes hold.

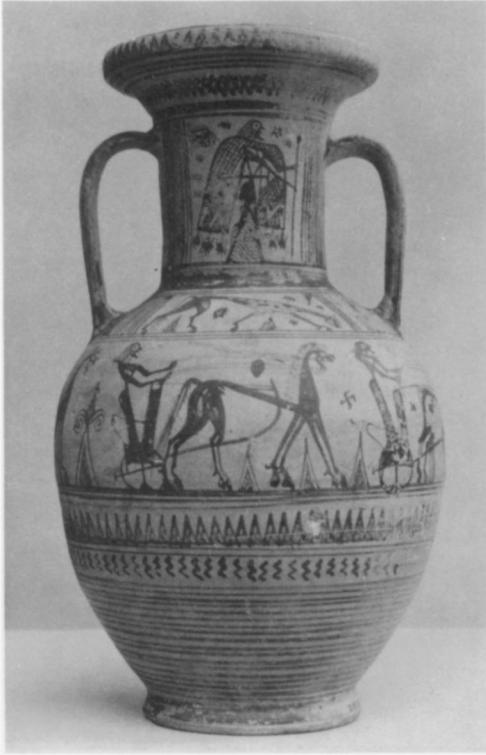
Obviously, this review is far from complete. At this time it is impossible to equate all bronze attachments with representations of them by vase painters. And, certainly, there are many harness fixtures quite different from those considered here.¹⁷ However, this array may serve as a start of the subject.

DOROTHY KENT HILL

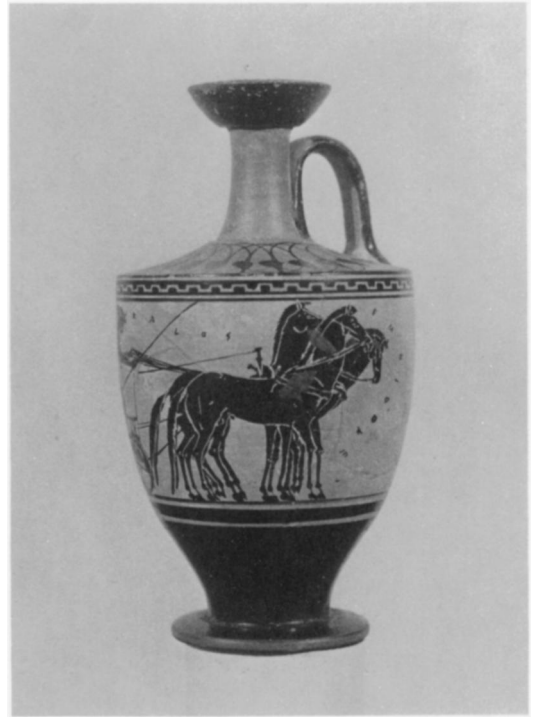
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¹⁶ O. Broneer, *Hesperia*, VI, 1937, pp. 468 ff., fig. 4 on p. 475; *Illustrated London News*, August 28, 1937; *A.J.A.*, XLII, 1938, pp. 161 ff., pl. XVI, B; *Beazley, ABFV*, p. 145, no. 19 and *Development*, pp. 70 f., 113 note 32; B. Neutsch, *Marburger Jahrbuch für Kunstwissenschaft*, XV, 1949-1950, p. 67, fig. 42 and p. 73.

¹⁷ Beware making judgments from vase reproductions in the older publications! Morin-Jean, *Le dessin des animaux en Grèce*, Paris, 1911, p. 201, fig. 232 shows a quadriga with very strange rein guides. I think the drawing is inaccurate; cf. *C.V.A.*, Louvre, 2, III H d, pl. 16 (65) for a photograph suggesting that the whole area is damaged and confused. See also P. E. Arias and M. Hirmer, *Tausend Jahre griechische Vasenkunst*, 1960, pls. 36 f. A fragment by Nearchos shows two upright members as part of the harness, one serving to attach the zugodesmon and the other acting as rein guide. See P. Vigneron, *Le cheval dans l'antiquité*, Nancy, 1968, pl. 50; J. L. Anderson, *Ancient Greek Horsemanship*, Berkeley, 1961, pl. 14a. Vigneron's drawing may be correct but it seems to owe more to studies and drawings by Leaf and Helbig (see note 1) than to Nearchos' work.



a. Attic geometric amphora. Metropolitan Museum of Art, Rogers Fund, 1921



b. Attic black-figured lekythos. Courtesy, Museum of Fine Arts, Boston, H. L. Pierce Fund



c. Attic black-figured vase painting. Courtesy, Trustees of the British Museum



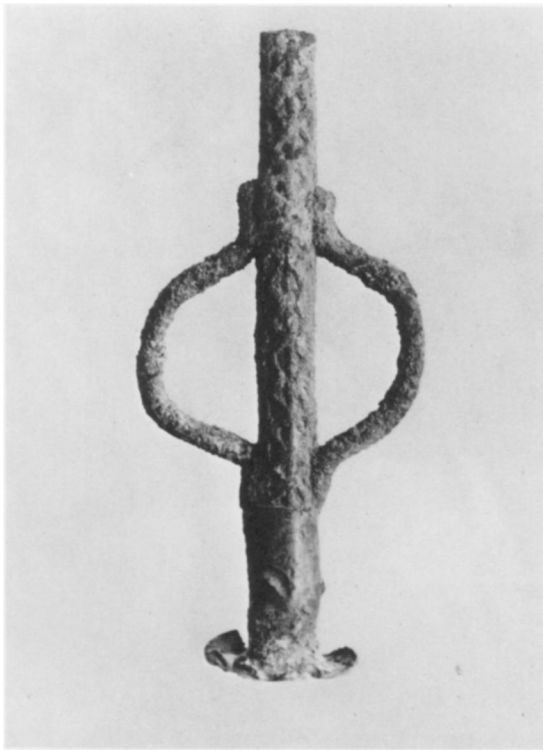
a. Ram, finial with attachment for zugodesmon. Syracuse, Museo Nazionale



b. Kid's head, finial with knob to hold zugodesmon. Metropolitan Museum of Art, Fletcher Fund, 1929



c,d. Pegasos, finial with projection to hold ring for zugodesmon. Walters Art Gallery



a. Decorated finial with rein guide. Delphi, museum. Photograph, Ecole Française d'Athènes



b. Decorated finial with rein guide. Delphi, museum. Photograph, Clause Rolley



c. Attic black-figured krater fragment: finial with flat top, yoke and rein guides. Athens, Stoa of Attalos