STONE KNOBS and CHARIOT TRACKS

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Among the Late Bronze materials from the University Museum's excavation of biblical Beth Shan, 12 miles south of Lake Galilee, there are a number of stone knobs of varying sizes and shapes. Some are of marble; some of Egyptian alabaster, or calcite; some are of the local Beth Shan alabaster, or gypsum.

Last year when I began work on the publication of the Late Bronze Age at Beth Shan, I wondered what could ever be done with the knobs, of which there were registered about twenty. Most of those that had been kept had come to Philadelphia; apparently no one thought them worth retaining for Jerusalem. They are, in fact, the sort of residual material which occurs in every excavation. It should be published and, if possible, interpreted, but unimpressive objects of unknown use are all too easy to disregard. Yet things of this description can often, as in this case, produce information all out of proportion to their unassuming appearance. What, what, what were they?
We know that Beth Shan, in northern Palestine, was at this time one of the great strongholds from which Egypt's Syro-Palestinian province was administered. During the reign of Ramesses III, just into the Iron Age and at least 200 years later than the earliest of the knobs, the Beth Shan garrison was commanded by one Ramesses Weseer-khepeshe, "Commander of Troops of the Lord of the Two Lands, Great Steward and Overseer of Foreign Countries and Fan-Bearer on the Right of the King," obviously a very high official. On this basis alone, Beth Shan must have been a very important frontier post. In Early Iron Age level VI, a very impressive house of the type current in XIXth and XXth dynasty Egypt had been constructed by this official; in fact, it is inscriptions from its doorjambs that provide our information about him and much of the Egyptian activity in Palestine at this time.

Just before this, in the final stages of the Late Bronze Age, the city figures as the site of a dramatic Egyptian putdown of the Canaanites when Setti I, or one of his generals, on the 10th day of the 3rd month of the 1st summer of Setti's reign (c. 1320 B.C.) led the army of Re (Many Braves) to Beth Shan to deal with the "wretched enemy" of Hamath and Pella, two other Palestinian towns which were trying to "liberate" Beth Shan from the Egyptians.

We know this from a beautifully carved basalt stela found in lower level V where it had fallen below a second stela, a rather bombastic one of Setti's son, Ramesses II, which at least demonstrated much Egyptian interest in Beth Shan in the period between Setti and Ramesses III. In fact, though only a small fragment of any further stela was uncovered at the site, there were altogether in lower Level V, dating perhaps from 1300 B.C., five stela bases in situ. The stela which had stood on them must have been moved up to this Iron Age level from the Late Bronze Age strata in which they originally stood, suggesting both much activity on the part of the Egyptians and quite a lot of loyalty to them on the part of the citizens of Beth Shan.

So it was no surprise to find a bronze trumpet among the Late Bronze Age materials. This, of course, found a comparison with contemporary copper and silver trumpets from the tomb of Tutankhamun. When I had read what Howard Carter had to say about these, I rifled through the remainder of his delightful volumes on the discovery of this tomb to see what other parallels might exist with objects from Late Bronze Age Beth Shan. And there were the alabaster knobs! All types of them and no doubt about it. The smaller ones, 1½" high, looking like finials on Chippendale desks, were the really elegant terminals of the staves of pharaoh's state chariots—the (literally) gold-plated Cadillacs of the day. The larger knobs, 3½" high and about as much in diameter, looking like spoons with swollen flanges, finished off the harness saddles put upon the horses' withers. Who would ever have expected such unsuspecting knobs hitherto published, if at all, asPrecio?
In Egypt, tombs and other monuments from the 16th century B.C. on produce an incredible number of chariot representations. On reliefs and paintings, chariots and chariots, ivory boxes and other small objects, pharaoh and his nobles, fascinated with their speed and verve, stand braced with bow drawn on the lion which always so conveniently pursues them across the desert. In battle scenes, bow triumphantly across a carpet of the dead and dying. Yet without real roads, without springs, with bodies so light they could be carried on the shoulders of a man, with only tightly stretched leather thongs for flooring, chariots must have been incredibly hard to balance in and the famous flying gallop must have deposited many a dignitary in the ditch or on his head, as befell the Mahir in the Aniaste papys nates dated to the reign of Ramses II. C. 1304-1277 B.C. Somewhere in Syria, perhaps not far from Beth Shan, as the background described could very well have been the Wadi Siturn, near Megiddo 12 miles to the west, this swift military counter finds that he is:

... alone, there is no helper (7) with thee, no army behind thee. Thou findest no... to make thee a way of crossing. Thou decided (7) (the matter) by marching onward, though thou knowest not the road. Shuddering (7) seizest thee, (the hair of thy head stands up (7), thy soul is in thy hand, thy path is filled with boulders and pebbles, without a passable track

A superb draftsman, Howard Carter made this scale drawing of the yoke of one of Tutankhamon's chariots in 1922 when the tomb was first opened. His records of the discovery are now at the Griffith Institute, Oxford.

2. Howard Carter's original drawing of a harness saddle with alabaster boss, from the tomb of Tutankhamon.

3. A terminal of Egyptian alabaster mounts a Canaanite captive carved upon the yoke of one of the state chariots in the tomb of Tutankhamon.

Scores of real chariots were also depicted with the grave furniture of those who could afford it. Yet astonishingly few of the actual vehicles have survived to our time. While the dry Egyptian climate has a very high preservation record, it has in this case been defeated by the inevitable tomb robber who breaks up and often burns the perishable materials he does not want in a rather silly attempt to cover the traces of his entrance.

Of complete chariots extant today there are perhaps half a dozen from the tomb of Tutankhamun, still essentially unpublished though this work is now under way. These have wheels with six spokes and include two much-pictured state chariots with gold-covered yoke and shaft. There were also at least three lighter vehicles, or carrickes, used for hunting or exercising.

4. Possibly never intended for use in the real world, this state chariot is one of two decorated in gold leaf with scenes of Egypt's conquest of southwestern Asia. It comes from the tomb of Tutankhamun.
On the relief on the body of the chariot of Tuthmosis IV (about 1425-1417 B.C.), Pharaoh guides a late-model chariot with eight-spoke wheels. His Canaanite adversaries have only "vintage" vehicles with earlier four-spoke wheels. The father of this Tuthmosis notes capturing 10,002 of the latter on the Syrian campaign of his 9th year.

A misinterpretation on the part of a 19th-century copyist shows a relief of Egyptian chariots at the battle of Kadesh as having eight-spoke wheels, even though those had then been obsolete for 203 years. Only Pharaoh—Ramesses II—has the contemporary six-spoke wheel.

In this relief from Amona the chariot of Akhenaten (whose reign ended about two years before that of Tutanakamun began) is shown on the lowest register. In the upper register, the chariots of Pharaoh's attendants are depicted. All clearly show stone saddle bosses and yoke terminals, paralleling those identified at Beth Shan.
knobs and the less than perfect surface of the surviving walls. One relief which does show them quite clearly comes from the top of the Temple of Aten at Karnak (ca. 1360 B.C.), as well as Tutankhamun’s, would be roughly coeval with the earliest of the Beth Shan drawings known in antiquity.

The Amarna representation is part of a much larger relief depicting Akhenaten’s visit to the Temple of the Aten. In the portion shown here five chariots are drawn up, the one in the lower register belonging to a horseman, whose horses’ harness is seen. In the two upper registers, though lacking the bow cases and quiver of the military vehicle, at least belong to ordinary mortals and must more-or-less parallel those from which the Beth Shan fittings came.

Actually, the Amarna relief here differs only in the headrest of its steeds and in the presence of a large, unornamented disc attached to the harness at the base of the horses’ manes. This disc is confused with or obscures the saddle bosses in many of the representations of the royal chariot. The objects found with Tutankhamun make it quite clear, however, that this disc does not represent a saddle boss. Fittings for the pole of one of the Amarna chariots, a six-inch bowl, and the relief disc of the falcon Horus in gold leaf; a representation from the Ramesseum of one of Ramses II at Abydos bears a gold disc with a relief of Rameses making a sacrifice.

In the Amarna relief, the golden disc very nearly rests on the saddle boss, of which only the upper flange is visible. This, in turn, almost rests on the lozenge-shaped terminal of the yoke, which curves around into its position here. Egyptian perspective being what it was, Yoke terminals and saddle bosses are quite visible on the other chariots in this Amarna group. On some other reliefs, the saddle boss seems to be drawn out to look like a tiny papyrus column. This may represent a very early type of boss, not yet identified among the archaeological materials, or it may simply be artistic license.

How large a chariot corps at Beth Shan is represented by the score of fittings found at this site is an interesting question and one that can be answered only in conjecture. If we accept Seti’s arrival with the 5,000-man division of Re with the 5,000-man, 50-chariot expeditionary force of Rib Addi of Byblos asked his chariots to send during the Amarna period, we might take 50 chariots as appearing with Seti. This would probably have been the maximum stationed at Beth Shan, even though the knobs run through several later levels.

As the wealthiest nation of the ancient world, Egypt was essentially mass producing chariots during the Empire. There were chariot repair shops at strategic sites in Syria while mobile repair shops travelled with the army. This government production of materiel doubtless led to much standardization which could be archaeologically very useful. A few of the stone fittings from Beth Shan are of the unmistakable local gypsum, it is perhaps not unreasonable to suggest that one of the provincial repair shops was located here. It was to an establishment of this sort (at Jaffa, due west of Jerusalem) that the Amarna document of 1360 B.C. reports.

...thou makest thy way into the army. warhorses, warhorses, warhorses; smiths and leather workers are all about thee. They do all that thou wishest. They attend to thy chariot, so that it may cease from thy feet. They pay heed (7), its... are adjusted. They give leather coverings (7) to thy collar-piece (7). They... supply thy yoke. They give padding thy...worked with the chisel (7) to thy yoke (7). They... give it a...of metal to thy whip; they fasten (to) it laces. Forth thou gatest quickly to fight on the open field, to accomplish the deeds of the brave.

At the period in human history which we are considering, the chariot— which is to say any kind of wheeled vehicle— was absolutely new in Egypt. It was not a variation on an earlier prototype or model but something which had never before existed in all of this area. This situation is difficult for us to comprehend today and the chariot’s effect on the Egyptians and their attitude to it is therefore difficult for us to comprehend. However, that is a different problem. We shall not attempt to enter it here.

A new and really very complex mechanism was introduced into a world of otherwise very simple ways of doing things. The chariot increased human speed, size, personality ratios, striking power in war and game, to say nothing of the new suppleness or freedom in ways still to be found among the owners of fast sports cars, motorcycles and leather jackets, dogs familiar with advanced technology.

While the chariot was new in Egypt in the Late Bronze Age, it had in fact existed in one form or another in Mesopotamia and perhaps as far as the Caspian for two millennia. We know it had reached the middle Euphrates by c. 1850 B.C. But presumably it did not diffuse to Palestine till the first half of the second millennium B.C. nor to Egypt till the second half of the second millennium. Just why it reached Egypt so late is an interesting point. But because Egypt was geographically so far from the chariot’s point of origin or because, with a highway as the Nile, the Nilotic world was ready in limited use for Egypt until the conquests of Empire brought its potentials for warfare into focus. This same situation probably did not occur nearly 500 years earlier to any Egyptian visiting Tell el-Amarna, as Syro-Palestine was at that time known.

Since nearly all of the elements of the chariot are of wood or leather, the case for its introduction into both Canaan and Egypt has two tracks. One depends on inscriptions, paintings and reliefs of various sorts, horses and chariot burials, plus the wheels of model chariots often actually made of pottery. There are all good positive evidences, saying the chariot was there. But chariots may have been present when no representations, burials or mentions in the archives were made. Small stone fittings like those identified at Beth Shan are therefore likely to extend considerably our information on the presence of the chariot. Admittedly they too lack positive evidence but they should multiply the potentialities for obtaining it, as more of them appear. It is only prudent to include two or more saddle bosses, and chariots seem to have been fairly thick upon the ground once they did reach the Near East—at least assuming pharaoh told the truth about his conquests. Tutmosis III lists "one chariot wrought of gold belonging to the prince of Megiddo" and "982 chariots belonging to the prince’s chariot army" as captured at the battle of Megiddo in 1479 B.C. In the aftermath of this encounter, there is also evidence from the Canea bowl of 2,041 mares, 191 female colts, 6 stallions and an indeterminable number of male colts as further enhancements of this armament. Amenophis II lists 850 meryonnek (or Syrian chariot) horses and 720 chariots as captured on the Asiatic campaign of his 7th year, c. 1443 B.C. Only two years later, in his 9th year, Amenophis III tells us that he returned from Syria-Palestine with 60 chariots of gold and silver and 1,032 of painted wood.

Because of the imperishability of stone and the distinctive shape involved in the yoke terminals of the saddle bosses, we should be able, in at least some cases, to determine the presence of chariots wherever it may occur on the clue of even a small fragment of one of these bosses. Presumably, when the Egyptians first adopted the chariot, they copied all parts of the prototype so exactly that fittings of the type described here should identify one chariot for some time both before and after the beginning of the Beth Shan period. Even one of the Egyptian warriors for chariot, merti, is a loan word from the Semitic karmatu. From this beginning it will probably be possible to work out a typology for earlier and later examples of the knife.

The archaeological evidence here constructed can be still further extended by the oldjoining of the fittings with which the larger knobs, or harness bosses, are these themselves ornamented and attached. On Tutankhamun’s chariots, these consist of red gold and fine学前教育 fixed on the stone body by a bronze nail, its head covered in gold leaf. The nail holds the entire knob complex on the wooden saddle. In the military chariots used at Beth Shan both rossette (if any) and pin must have been of bronze.

No suitable rossettes of this material occur among the Beth Shan fittings, but there are a number of large, bronze nails in the collection. These have always been puzzling as they do not occur in significant quantity for constructional purposes and, in any case, would have been quite extravagant for this use. A number, though, they have lost through corrosion much of the original topical length which would have required to do the job as described, do have heads of the right size—¾" in diameter. Further, the upper surfaces of both Beth Shan saddle bosses have marks of wear which fit the nail heads (left rear on photo 4, 33 at Beth Shan). See how the first example of the Iron Age as well as the Bronze Age levels, though the stone knobs do not, giving an example of the type of extension just noted. At other sites the rossettes may be found in close association with the nails and saddle bosses, as well as with other pieces of chariot fittings still to be identified. Scholarship, if you like: detective work; if you prefer this term; is an example of ordinary archaeological work specifically to the chariot: of seeing, then, the one thing, when enough comparative material is available.

It underscores once more the importance of the unique collection from Tutankhamun’s chariots prove every bit as valuable as the glamorous gold masks for which his burial is known.

Credits


Tomb of Amenhotep III.

Suggested Reading


James, Frances 1966 The Iron Age at Beth Shan. University Museum Monograph, Philadelphia.

James, Frances 1986 "Re-examining" Beth Shan. The basement of the University Museum. Her volume on the Iron Age, c. 1300-1100 B.C. has already been published as a Museum Monograph. With a Lond-}

University F. B. Keyton, Philadelphia. She has published, among many other things, some discussion on the late post-}

nautical sites: The Pottery of the Late Bronze Age II. East in the Past, West in the Present. She has also contributed a paper on the pottery of the Egyptian and later sites in Syria, Jordan, Syria, and Mesopotamia, which perhaps also would be worth adding to this discussion.