Title: Chariot terracotta models from Tell Arbid

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CHARIOT TERRACOTTA MODELS
FROM TELL ARBID

Mattia Raccidi
Università degli Studi di Napoli “L’Orientale”

Abstract: The sample of chariot models from Tell Arbid has contributed significantly to the study of ancient Near Eastern terracotta chariot models by being sufficiently large (40 complete and fragmentary models), providing a complete range of model types and spanning a period from the beginning of the 3rd through the middle of the 2nd millennium BC. The author presents his typology: six different types based on major morphological features, providing an effective tool for future analyses of ancient Near Eastern terracotta models. The assemblage is subsequently analyzed in terms of the different types, the chronological distribution of types over a period from the Ninevite V (beginning of 3rd millennium BC) through the Khabur Ware period (beginning of 2nd millennium BC), and their contextual provenience (cultic, domestic and public).

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Chariot models constitute a peculiar category of terracottas from the ancient Near Eastern, common in assemblages from the beginning of the 3rd through the middle of the 2nd millennium BC. The group examined in this study came from stratigraphic excavations carried out by a Polish–Syrian mission from the Polish Centre of Mediterranean Archaeology, University of Warsaw, on the North Syrian site of Tell Arbid. The work, which has been ongoing since 1996, has provided a full stratigraphic sequence encompassing the Early and Middle Bronze Age.

The paper presents a typology of the Tell Arbid terracotta chariot models and discusses their chronology and distribution on the site.

TYPOLOGY

The present typology derives from a systematic study of 40 chariot models (complete and fragmentary) unearthed at the site of Tell Arbid and was conceived as a tool for classifying chariot terracotta models from all Near Eastern sites falling in the time span from the Early to the Middle Bronze Age. It is broken down into six types, distinguished on the grounds of morphological model features, divided into four principal categories and analyzed in order of importance as follows: 1) number of wheels, 2) body morphology, 3) position and shape of the axle, 4) specific features.
The number-of-wheels category is self-explanatory, while the body morphology description marshals details of overall shape of the model, main components like body, shield, hole for draught pole, seat and footboard. Axle position and shape were analyzed separately inasmuch as they can be of importance for determining type. This was done despite nearness to the draught pole opening. It was noted that the draught pole hole paralleled the chariot body in cases of the axle being located at the rear of a model and ran at an oblique angle to the body, if situated directly across. If the axle was in the central part of the model, it could be both parallel and oblique, with a preference for the latter. Specific features of various models were analyzed subsequently, such as clay color and quality, shape of the shield edge and decorative pattern. Last but not least, the chronology of a given type was discussed.

**TYPE I: TWO-WHEELED PLATFORM BODY** [Fig. 1]

Number of wheels: 2  
**Body morphology:** The body consists of a simple platform without a seat, basically rectangular in shape with rounded corners; some specimens have a trapezoidal or pointed body. A shield, usually rounded at the top, was applied at the front of a model; in rare cases it took on a more complex shape. The hole for the draught pole on the front shield was always parallel to the body.  
**Axle position and shape:** The axle was always integrated into the body and was located, for the most part, in the rear part of the model, moving the center of gravity forward. Stability was ensured by the draught pole parallel to the body, it being most likely of the straight type.  
**Specific features:** In models of this type the color of the clay was generally dark brown (10YR 4/1,2; 3/1,2; 2/1,2). The clay was of the same kind, containing few inclusions, these being almost always chaff. The objects were fired in low temperature. The models were simple and never decorated.  
**Date:** This is the oldest type of model among those examined, dating back to the Ninevite V period at the beginning of the 3rd millennium BC.

**TYPE II: TWO-WHEELED BOX BODY** [Fig. 2]

Number of wheels: 2  
**Body morphology:** The body is basically of rectangular shape, the edges rising to form a more or less deep box between the front shield and the seat. The hole for the draught pole is almost always oblique. The seat was in the rear section of the model and a footboard was added to the back, forming a right angle with the seat.  
**Axle position and shape:** The axle, which is round in section, is external to the body in most of the examined pieces, although cases of an integrated axle have been noted (e.g., Arb’05 SD 35/65-16-1, see Fig. 2).

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1 The footboard is a trapezoidal appendix at the back of the body. In full-sized chariots it was formed by the extension of the floor in the rear part and was used to accommodate a second standing person.
top). The axle may be located in the central part of the body, in which case the hole for the draught pole runs at an oblique angle. In other cases the axle is moved back, the hole for the draught pole then being parallel to the body.

Specific features: The clay can be colored brown, but also pale yellow (5Y 8/2,3,4; 8/2,3,4; 2.5Y 7/3,4). The top of the shield can take on many forms, from simple, rounded or square, to more complex, like a crescent or fish-tail. Some models have decoration, often on the shield, less often on the body. The most common decoration is formed by rows of stamped circles or incised lines, usually crossing diagonals placed on the shield. Vertical lines appeared on the sides of models, probably marking the axes, which formed the chariot structure.

Date: Models of this type have been attested from the Early Dynastic II to the Mitanni period.
TYPE III: TWO-WHEELED PLATFORM BODY WITH FOOTBOARD [Fig. 3]

Number of wheels: 2
Body morphology: Body of basically rectangular shape with slightly concave top surface. The front shield has hole for the draught pole, which runs at an oblique angle when the axle is located in the front or center of a model and parallel when the axle is in the rear part. The seat is generally narrow and rectangular. In some cases, the footboard and the seat form an obtuse angle instead of the more common right angle.
Axle position and shape: The round-sectioned axle is almost always projecting from the body and may be positioned in front, in the middle or at the back of a model; the first and last of these positions are the most common. A rear axle is attested especially in chariot models with molded decoration in the form of images of deities on the shield.
Specific features: Models of this type come in the same range of colors as types I and II. Shades of dark brown and pale yellow predominate, with rare examples of yellow-reddish and sometimes pinkish (5YR 6/4,6,8; 5YR 7/4,6,8). The upper part of the shield takes on the same form as type II: round, square, crescent and fish-tail, with more evidence of the last two. The fish-tail shape is also widely used for models with four wheels and it may have a symbolic meaning, because the two appendices recall the horns on divine tiaras. Frequently this type of model comes decorated, especially on the shield. The same simple decoration as in type II consists of stamped circles and incised.

Fig. 3. Chariot models of type III
(Drawing M. Mierzejewska, M. Momot, M. Raccidi)
lines, sometimes used together, as in the case of Arb’99 SS 36/55-9 [Fig. 3, bottom right] where two incised crossing diagonals are surmounted by a cross of stamped circles. The more complex decoration encompasses figurative motifs and images or symbol of deities, applied or molded (Stone 1993: 83–107). Decoration of this kind was typical of southern Mesopotamia.

**Date:** The first examples of this type have been dated to the Early Dynastic II period, but the type is attested more often from the late 3rd to the beginning of the 2nd millennium BC. Models with molded decoration are typical of the Old Babylonian period.

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**Fig. 3. Chariot models of type III**
*(Drawing M. Mierzejewska, M. Momot, M. Racciidi)*
TYPE IV: FOUR-WHEELED PLATFORM BODY [Fig. 4]

Number of wheels: 4
Body morphology: Body with rectangular platform, plain upper surface between the front shield and the rear part and oblique draught pole.
Axle position and shape: The front and rear axles are integrated in the body, the first below the shield and the other at the end of the rear part.
Specific features: Chromatically models of this type range between pale yellow and yellow-reddish; light brown shades are also common (7.5YR 6/3, 4). The upper part of the shield is mainly of the fish-tail type, while the shield decoration usually consists of incised lines and stamped circles forming geometric patterns of various types (X, grids, zigzags, hatches, etc.).
Date: Chariot models of this type were common in the Early Dynastic III period.

Fig. 4. Chariot model of type IV
(Drawing M. Raccidi)

TYPE V: FOUR-WHEELED BOX BODY [Fig. 5]

Number of wheels: 4
Body morphology: Rectangular body with sides rising vertically to form the box; the bottom of the body may be either rounded or flat. The front shield is almost always flat outside, the draught-pole hole predominantly oblique. The seat at back is always present in models with rounded body and never in those with flat body. The footboard is present regardless of whether there is a seat or not.
Axle position and shape: Models with seats have the two axles mostly outside the body, while those without usually present axles integrated with the body.
Specific features: The clay is colored light brown and pale yellow; it is more seldom yellow-reddish in color. The top of the shield may be round, square or crescent-shaped, but the fish-tail shape is the most common (“Standard of Ur”). Decoration is very frequent on the shield and body, consisting mainly of incised lines forming a wide range of geometric patterns. Stamped circles occur as well, usually distributed over the entire surface of the model.
Date: Models of this type have been attested in the Early Dynastic III and Old Babylonian periods.
TYPE VI: FOUR-WHEELED COVERED VEHICLE [Fig. 6]

Number of wheels: 4
Body morphology: Models of this type can be divided into two subtypes. The most common subtype has a rectangular body and flat base, seldom slightly curved, and U-shaped cover. In the other subtype the body and cover merge seamlessly, so that the model takes on the form of a vase. Unlike the other types, these models were furnished with one or three pierced lunettes, to which a rope was probably attached to pull the model. This traction system was rarely combined with a hole for the draught pole.
Axle position and shape: The axles, round in section, were in most cases outside the body; sometimes they did not form a continuous cylinder between the left and the right side, but were separated (Arb’03 SD 36/65-36-1, Fig. 6, top view). The front axle is usually located under the front of the model, rarely being moved forward slightly, while the rear axle is always positioned at the back of the model.
Specific features: For this type of wagons the most common color of the clay was pale yellow and light brown, with a prevalence of the latter. Models without decoration are rare. The decoration appears mainly on the roof and in some cases on the front, where there are usually incised vertical lines. The decoration of the roof is almost always made of incised lines forming geometric patterns, such as a zigzag,
Fig. 6. Chariot model of type VI
(Drawing M. Ozdarska)
herringbone, or more commonly a grid, arranged in groups or occupying the entire surface.

Considering that a few terracotta models of this type have been recorded from southern Anatolia and northern Mesopotamia, it may be assumed that wagons of this kind were used by a nomadic or semi-nomadic population moving seasonally from southern Anatolia to the steppes of northern Syria and back, either along the Middle Euphrates or through the Tur Abdin region at the present Turkish-Syrian border (Moorey 2001: 347). Another interpretation of these wagons has been inspired by glyptic images from Tell Beydar, where such vehicles, pulled by humans, are represented only in cultic scenes. Of particular importance is an impression featuring two human busts without the lower parts of the bodies — perhaps statues of gods — transported in a wagon (Jans, Bretschneider 1998:155–194).

**TYPOLOGICAL ANALYSIS** [Fig. 7]

The six models belonging to type I: Arb’07 W 52/55-55 [Fig. 1], Arb’07 W 52/55-36a, Arb’07 W 53/55-9, Arb’08 W 52/54-21 [Fig. 1], Arb’08 W 52/57-117-10 [Fig. 1], Arb’10 W 53/55-129-8) exhibit very similar body shape, clay color and axle position. Models Arb’07 W 52/55-55, Arb’08 W 52/57-117-10 and Arb’10 W 53/55-129-8 show certain peculiar characteristics. The first of these models has four rectangular holes on the upper surface of the platform, placed two on the left and two on the right; they were probably used to mount some sort of cover of perishable material; if so, it would be one of the first models of a covered vehicle. The second of the models has a special kind of shield, vaguely diamond-shaped and slightly projecting from the body. The third model has a small bulge instead of the usual front shield.

Parallels for this type of models are generally very rare. They are reduced substantially to three specimens: two from Abu Salabikh and one from Kish (see Table 1 for cited parallels).

Type II is represented by six models: Arb’98 S 36/61-12, Arb’01 S 37/55-69-8, Arb’04 SD 36/65-8-9, Arb’05 SD 35/65-16-1 [Fig. 2], Arb’02 A 30/27-30-2 and Arb’02 A 30/27-169-1 [Fig. 2].

Models of this type are less homogeneous than type I in terms of morphology and chronology. It is possible to distinguish two subtypes: one with the axle outside the body or projecting from it and a small rear seat, and the other with the axle integrated with the body and a larger seat. Both subtypes include...
Table 1. Sites with chariot models by types with cited references

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decorated examples: Arb’01 S 37/55-69-8 is decorated with X-shaped incised lines on the front shield and Arb’05 SD 35/65 16-1 with stamped circles on the shield and back of the body.

Parallels are much more common than in the case of type I: the first subtype is paralleled by models from Tepe Gawra, Kish, Assur and Tell Chuera (see Table 1 for cited references). Parallels for the second subtype come from Uruk, Hama and Nuzi. Other models attributable to type II were recorded at Tell Brak, Habuba Kabira, Tell Halawa, Tell Bi’a and Tell Selenkahiye.

Models of type III are the most common: Arb’98 S 36/58-48, Arb’98 S 36/60-16 [Fig. 3, subtype a], Arb’01 S 37/55-59-1, Arb’04 SD 32/64-7b [Fig. 3, subtype b], Arb’99 SS 36/55-9 [Fig. 3, subtype b], Arb’00 SS 36/54-18, Arb’00 SS 36/54-40-14 [Fig. 3, subtype b], Arb’01 SS 37/53-13, Arb’07 D 31/41-28-16 [Fig. 3, subtype c].

Three subtypes were distinguished based on morphological features. The first (a) is represented by miniature models, the second (b) concerns those with the axle positioned in front and the third (c) groups models with the axle in central position (a fourth subtype, not represented among the Tell Arbid examples, consists of models with a rear axle and usually high shields decorated with molded images; these were typical of southern Mesopotamia).

The first subtype (a) includes two models: Arb’98 S 36/58-48 and Arb’98 S 36/60-13, both very small, between two and three centimeters, and chromatically the same. The axle with circular section is outside the body, in the first case on the front and in the second on the back. The second subtype (b) includes five models: Arb’04 SD 32/64-7b, Arb’99 SS 36/55-9, Arb’00 SS 36/54-18, Arb’00 SS 36/54-40-14, Arb’01 SS 37/53-13. The third subtype (c), finally, is represented by two models: Arb’01 S 37/55-59-1 and Arb’07 D 31/41-28-16.

Three of the models of this type were decorated: Arb’01 S 37/55-59-1 has stamped circles on the shield and body, Arb’99 SS 36/55-9 [Fig. 3] has on the shield an X-shaped incised line topped by stamped circles forming a cross, and Arb 00 SS 36/54-40-14 [Fig. 3] has incised vertical lines combined with traces of reddish paint on the shield and on the axle.

Many parallels can be found for this type of chariot model. Comparisons for the first subtype (a) come from Uruk and Nippur. Those for the second subtype (b) come from Tell Halawa, Abu Salabikh, Tell Brak, Assur, Susa, Tell al-Wilayah, Kish, Nuzi, Tell Beydar, Tepe Gawra and Uruk. For the third subtype (c), parallels have been noted at Tell Halawa, Gaziantep, Hama, Tell Melebiya, Tell Chuera and Abu Salabikh (see Table 1 for cited parallels).

Type IV is represented by only three models: Arb’09 W 52/57-33-1 [Fig. 4], Arb’09 W 53/56-103-7 and Arb’10 W 52/58-14-3.

All models of this type feature a front shield which is slightly bent, because the front axle slightly protrudes from the body to the front. The illustrated model has incised crossing diagonals on the shield plus a few stamped circles. The other example from Tell Arbid has no decoration, but the outer surface of the shield was burnished. It is interesting to note that this treatment, commonly used on ceramic vessels, has not been attested so far on chariot terracotta models.

Parallels for this type, as for type I, are very rare and mostly related to the type in general. They are constituted
by two models, one from Tell Bi’a and the other from Nippur (see Table 1 for cited parallels).

Models of type V are as common as those of type III. They can be subdivided into two subtypes based on body morphology: one with the bottom of the body slightly rounded (six examples: Arb’96 S 36/55-29-1, Arb’98 S 36/57-13, Arb’04 SD 32/64-7, Arb’99 SS 36/55-IX[Fig. 5], Arb’00 SS 36/55-23, Arb’99 D 29/43-123-1 [Fig. 5]) and the other with the bottom flat (three: Arb’03 SD 36/64-102, Arb’04 SD 35/64-13 and Arb’03 W 51/56-106-5). Two fragments of a shield: Arb’04 SD 33/65-13 with geometric decoration on the outer face and Arb’08 SS 36/57-4-14 without decoration, could also belong to type V. The only decorated model is Arb’03 SD 36/64-102, which has a grid of incised lines on the entire surface of the body.

Parallels for the first subtype come from Tell Brak, Tepe Gawra, Tell Chuera, Kish, Susa, Tell Huwayrah, Assur and Nuzi. The second subtype finds analogies in Tell Brak, Tell Halawa, Tell Chuera, Tell Bi’a (see Table 1 for cited references).

One model, found complete (Arb’03 SD 36/65-36-1), was assigned to type VI. The top of the roof is decorated with two incised zigzag lines forming a grid pattern. Parallels are concentrated mainly in northern Mesopotamia and southern Anatolia Tell Brak, Tell Selenkahiye, Tell Bi’a, Tepe Gawra, Hama and Terqa (see Table 1 for cited references). Six models come from Syria and one from southern Anatolia, but not from stratigraphic excavations.

**CHRONOLOGICAL ANALYSIS**

More than 50% of the models found in Tell Arbid dated from the first half of the 3rd millennium BC, with a higher clearance during the Early Dynastic III [Fig. 8]. The second half of the 3rd millennium and the first half of the 2nd millennium BC each have a share of about 20%.

Models of type I are the oldest among those found and were all dated to the Ninevite V period. Two models: Arb’08 W 52/57-117-10 [Fig. 1] and Arb’07 W 52/55-36a, came from the earliest phase, four others from the later phase: Arb’07 W 52/55-55 [Fig. 1], Arb’07 W 53/55-9, Arb’08 W 52/54-21 [Fig. 1] and Arb’10 W 53/55-129-8. The antiquity of these models is also confirmed by the simplicity of their design.

Three models of type II were dated to the Early Dynastic III period: Arb’01 S 37/55-69-8, Arb’04 SD 36/65-8-9 and Arb’05 SD 35/65-16-1 [Fig. 2], two others to the Mitanni period: Arb’02 A 30/27-30-2, Arb’02 A 30/27-169-1 [Fig. 2]. The chronological leap of almost
a thousand years is probably due to the fact that there are few models with secure dating. However, it was noted that models with external axle were more recent than those with integrated axle.

Models of type III were attested from the Early Dynastic III through the Khabur Ware period. The largest number of models of this type was found in Akkadian assemblages: Arb’01 S 37/55-59-1, Arb’04 SD 32/64-7b [Fig. 3] and Arb’07 D 31/41-28-16 [Fig. 3]. There is also a noticeable morphological change over time with models with central axle being older than those with front axle. Models of type V were attested in the same periods as those of type III, that is, from the Early Dynastic III to the Khabur Ware period, however the chronological distribution of the models is more homogeneous. Also the two subtypes (rounded-bottom and flat-bottom) are not differentiated chronologically. Arb’96 S 36/55-29-1 and Arb’99 D 29/43-123-1 [Fig. 5] came from the Early Dynastic III period, Arb’04 SD 32/64-7 and Arb’04 SD 35/64-13 respectively from the Akkadian and post-Akkadian periods, and finally Arb’00 SS 36/55-23 from the Khabur Ware period.

The data in the case of types IV (Arb’09 W 52/57-33-1, Fig. 4) and VI (Arb’03 SD 36/65-36-1, Fig. 6) was too scarce for even a general assessment, but like most other models these two could be attributed to the Early Dynastic III period.

### DISTRIBUTIVE ANALYSIS

The distributive analysis of chariot models from Tell Arbid was preceded by a verification of their provenance [Fig. 9]. Find contexts were divided into three general categories: 1) cultic; 2) domestic; and 3) public, and the share of each type of chariot model was analyzed for each of these categories. The results are important for a spatial distribution and functional analysis of the Tell Arbid chariot models.

The six models of type I had the most limited distribution. In fact, they were all found in Sector W, on the southern slopes of the mound, but more importantly they were the only models found in a cultic context. Models of type II had a wider spatial distribution: two from Sector S at the top of the mound, two from Sector SD on the eastern slopes and two from Sector A, a small mound northwest of the main tell. Four of the models came from a secure context: three from a domestic context (Arb’04 SD 36/65-8-9, Arb’05 SD 35/65-16-1 [Fig. 2], Arb’02 A 30/27-169-1 [Fig. 2]) and the fourth from a public one (Arb’01 S 37/55-69-8). Models of type III were present in all the investigated sectors except for Sectors W and A, with a greater frequency in Sectors S and SS on the summit of the main tell. These models were evenly distributed between domestic and public contexts. The few examples on the models of type IV prevents deeper analysis, but all of the models came from Sector W, like those of type I. Models of type V were distributed more evenly, having been attested in all the investigated sectors except one (Sector A), more or less with the same number of models. However, models of type V are attested more frequently in domestic
### Fig. 9. Distribution of types by chronological periods, by sectors and by different kinds of find contexts

<table>
<thead>
<tr>
<th>Site sectors</th>
<th>Cultic</th>
<th>Domestic</th>
<th>Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 II III IV V VI</td>
<td>TYPE</td>
<td>TYPE</td>
<td>TYPE</td>
</tr>
<tr>
<td>2 3 4 5 1 1</td>
<td>TYPE</td>
<td>TYPE</td>
<td>TYPE</td>
</tr>
<tr>
<td>6 3 4 5 1 1</td>
<td>TYPE</td>
<td>TYPE</td>
<td>TYPE</td>
</tr>
</tbody>
</table>

- **Site sectors**: 1 to 7
- **Cultic**: I to VI
- **Domestic**: I to VI
- **Public**: I to VI

<table>
<thead>
<tr>
<th>Chronological periods</th>
<th>Ninevite V</th>
<th>Early Dynastic III</th>
<th>Akkadian</th>
<th>post-Akkadian</th>
<th>Khabur Ware</th>
<th>Mitanni</th>
</tr>
</thead>
<tbody>
<tr>
<td>I II III IV V VI</td>
<td>TYPE</td>
<td>TYPE</td>
<td>TYPE</td>
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<td>I II III IV V VI</td>
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<td>I II III IV V VI</td>
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</tr>
</tbody>
</table>

- **Chronological periods**: I to VI
- **Ninevite V**: I to VI
- **Early Dynastic III**: I to VI
- **Akkadian**: I to VI
- **post-Akkadian**: I to VI
- **Khabur Ware**: I to VI
- **Mitanni**: I to VI

Source: PAM 21, Research 2009

Chariot terracotta models from Tell Arbid
contexts (5) than in public ones (1). None were found in cultic contexts, similarly to models of types II, III and IV. The only model of type VI came from Sector SD on the eastern slope of the main tell, where it was found in a domestic context.

RECAPITULATION

The following six types were identified among the terracotta chariot models found on Tell Arbid:
Type I: Two-wheeled platform body,
Type II: Two-wheeled box body,
Type III: Two-wheeled platform body with footboard,
Type IV: Four-wheeled platform body,
Type V: Four-wheeled box body,
Type VI: Four-wheeled covered vehicle.

Types III and V, which were the most numerous in the Tell Arbid assemblage, were a common product on all Near Eastern sites. Models of type II can be added to this, because of the numerous parallels. Conversely, models of type VI were surely regional products, because parallels are limited to northern Mesopotamia and southern Anatolia. Models of types I and IV have few analogies and limited discovery context (all models came from Sector W and models of type I were found in a cultic context), hence their presumed local manufacture for a specific function and for use in a restricted area, probably one associated with cult.

In terms of chronology, the oldest models are those of type I, dated to the Ninevite V period. The other types were introduced in the Early Dynastic III, which also saw the greatest diversity of types and models. This profusion coincided with the spread of the chariot motif in glyptic art and the diffusion of full-size chariots on a large scale.

The results achieved through the study of chariot terracotta models from Tell Arbid have opened a new way for the interpretation of Near Eastern chariot terracotta models.

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