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A BRONZE INGOT-BEARER FROM CYPRUS

Summary. *Cypriot bronze four-sided stands represent some of the most impressive metal artefacts produced in the Eastern Mediterranean. As such they offer insight into the high level of the Cypriot bronzework of the Late Bronze Age and witness the advanced skills of the Cypriot metalsmiths. A bronze fragment depicting a man bearing an oxhide ingot, detached from a four-sided stand and housed in the Royal Ontario Museum, Toronto, Canada, is now added to the corpus of these works. Although unprovenanced, its Cypriot origin is proven by its close typological, technological and stylistic affinities when compared to other Cypriot stands. The discussion of technology, style and chronology of this fragment serves as an opportunity for the evaluation of the stands as a whole and their establishment as products of great technical and artistic virtuosity.*

Apparently nobody ever warned the ancient world to 'Beware of Cypriots bearing ingots'. So the Cypriots kept on bearing their ingots at home and abroad, and the Cypriot smiths did not fail to depict some of them in action. Apart from Egyptian wall paintings, men bearing ingots were until recently known in two instances, both on Cypriot bronze four-sided stands, one said to be from Kourion and housed in the British Museum (Figures 3–4), the other, unprovenanced, in the Bible Lands Museum in Jerusalem (Catling 1964, 205–7, no. 34, pl. 34; Achilles 1981). A third example is now added to the still limited corpus of ingot-bearers, and this is again an object exhibited outside Cyprus, in the Royal Ontario Museum, Toronto, Canada. Although its provenance is unknown, its subject as well as technical and iconographical details leave no doubt about its Cypriot origin and the type of artefact to which it belonged.

The ROM acquired this fragment in 1995 as a gift from Robert E. Hindley; it is registered in the Greek and Roman Department, Inv. No. 995.144.1 (Figures 1–2).[1] The fragment is flat, plain on one side and decorated in low relief on the other; height: 3.89 cm; width: 6.19 cm (actually the width of the ingot); maximum thickness: 0.56 cm. There is a break at the top of the head and along the waist. The human figure must have been full length

1 The writers are grateful to Dr Paul Denis, Curator in charge of the Department of Greek and Roman Art for permission to publish this object, for the supply of photographs and for all the facilities which he offered to V.K. to study this object on a visit to the Museum in March 2000. We would also like to thank Mr Benyamin Tesler, Registrar of the Bible Lands Museum, and Dr Osnat Misch-Brandl, Curator of Chalcolithic and Canaanite Periods, Israel Museum, for kindly providing valuable information on the stand in the Bible Lands Museum, Jerusalem, as well as Dr Ian Todd, for editing the text.

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Figure 1
Fragmentary bronze figure of an ingot-bearer from Cyprus. Royal Ontario Museum, Toronto, Canada, Greek and Roman Department, Inv. no. 995.144.1 Photo courtesy of the Museum.

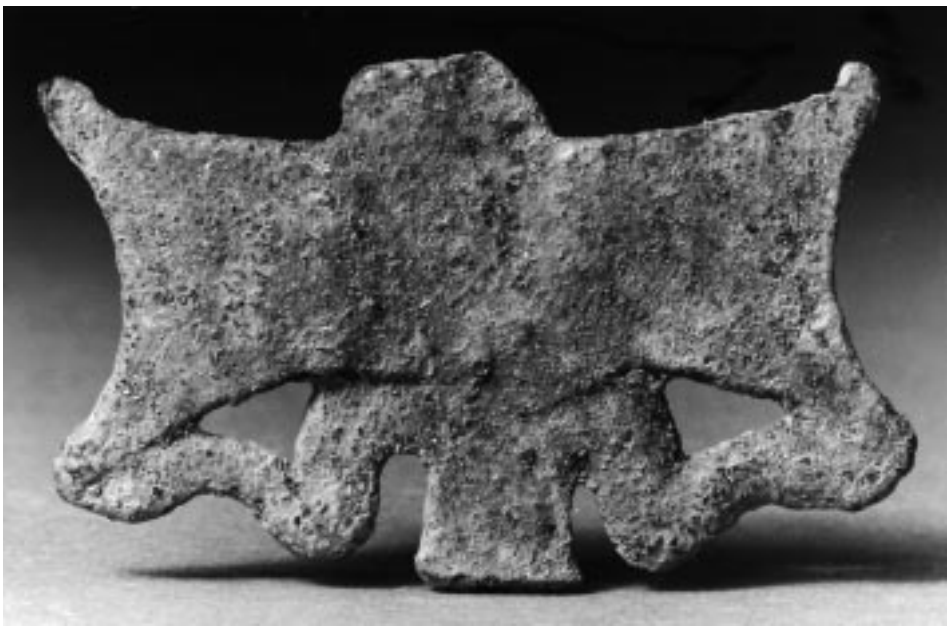

Figure 2
Same as 1, seen from the rear. Photo courtesy of the Museum.

and was probably wearing a long robe, perhaps leaving the upper part of his body naked. He is shown with his face turned to his left and overlaid upon the ingot, but his torso, composed of curvilinear outlines, is shown *en face*; his shoulders are strong, as opposed to the thin lower part of the torso. Both arms are bent to the sides to hold the lower corners of the ingot in each hand, while care is taken to depict the fingers of the right hand. The surface of the torso and arms is smooth, with no attempt to show any garment or anatomy. There are two low ridges across the waist indicating the belt. The facial characteristics are carefully rendered: large, almond-shaped eyes with ridged eyelids and eyebrow, thick lips, broad cheek and long nose. A mass of hair, vertically ridged, covers a large part of his disproportionately large head, and falls on the shoulder covering the short neck, while transverse grooves are depicted on the upper part of the head, above the almost non-existent forehead. The ingot has an exaggerated elongated shape, with sharply protruding edges, and is perceived as resting on the bearer's left shoulder. The characteristic rough surface of the real oxhide ingots is rendered by small depressions covering its whole surface.

The break on the top of the ingot-bearer's head leaves no doubt that this figure originally formed part of a larger object. Among the known types of bronze artefacts, the only category to which this fragment can be ascribed is that of the Cypriot four-sided stands. It actually finds close iconographic and stylistic analogies to the ingot-bearers of the above-mentioned two stands.

Cypriot four-sided stands form the '. . .greatest technical masterpieces of bronzework of any period during the late Bronze Age in the East Mediterranean' (Catling 1984, 88), and '. . .they represent some of the most impressive bronzes produced in the ancient world during the second half of the second millennium BC' (Muhly 1996, 54). They consist of a rectangular part, covering most of their height and crowned by a ring, and they are mounted either on simple feet or on wheels. Their use is revealed by the addition of the ring, the form of which leaves no doubt that vases were intended to be placed upon it. The rectangular part is constructed of horizontal, vertical and diagonal struts, resulting in an open box-shaped rectangle, with free fields created for decoration. These open fields are usually decorated with figures, almost always executed *à jour*, which can depict such complex scenes as processions with gift-bearers and musicians, chariots, fights between lions, bulls and griffins, or isolated figures such as lions and sphinxes. These scenes, although each seems isolated on one side, sometimes form part of one major scene which unwraps itself around the stand, having a starting point and an end (see Catling 1964, 205–7, no. 34, pl. 34, 208, no. 36, pl. 35).

Eight four-sided stands have been found on Cyprus or can, on stylistic, typological and technical grounds, be attributed to Cypriot workshops, even if found outside Cyprus (in the Aegean or on the Syro-Palestinian coast), or are of unknown provenance (Matthäus 1985, 313–20, nos. 703–9, pls. 100–8; add Catling 1996, 194 (no. 1), 517–18, figs. 165–6, pl. 276; Dothan 1995, 48, 52, fig. 13:6). Together with the typologically, technically and artistically closely related rod tripods (more than 20 examples), they occupy a special position as witnesses of the highly developed Cypriot bronze industry of the Late Bronze Age. For this reason they are, without exception, mentioned in every research in order to provide arguments for the development of the Cypriot bronze industry; furthermore, they never fail to be mentioned in accounts of the relations between Cyprus and Crete, since their tradition continued for a long period on Crete, where they are not limited only to imports but also formed part of the repertoire of Cretan workshops.

Figure 3
Cypriot bronze four-sided stand said to be from Kourion. British Museum, Greek and Roman Department, Inv. No. 1920/12-20/1.

At least seven of the ten four-sided stands from Cyprus or the Syro-Palestinian coast, both on feet and on wheels, carry reliefs executed *à jour*; of the remaining three, one is also decorated *à jour*, but with female heads appearing in windows executed in the round (Catling 1964, 204–5, no. 32, pl. 33c); the second is decorated with compact relief panels (Catling 1964, 204, no 31, pl. 33a–b) and the third is preserved only in inconclusive fragments (Dothan 1995, 48, 52, fig. 13:6). In some cases each side is divided into two or three fields, of the same or different dimensions. The figures are set between the frames and next to each other, side by side, if there is more than one (on the fragmentary examples in the Bible Lands Museum (Achilles 1981) four men are preserved, while originally, perhaps, there were six). A great effort is always made to connect the figures to these frames or to each other in as many places as possible. The relief is very low, and the back is always flat or slightly concave.

The figure on the ROM fragment is connected to the stands not only because of its iconography, known so far in the same medium and type only in this category, but also because of its technical affinities: flat on the back, low relief for the rendering of the figure, and the

horizontal break on top of the head, a remnant of the join to the upper frame of the open rectangular construction (Figures 1–2).

Since the preservation of the ROM fragment is so poor, nothing can be deduced about the size of the complete work, which would depend on the number of figures on each side (there is just one on the stand in the British Museum (Figure 3), more than four on the stand in the Bible Lands Museum in Jerusalem), or on the number of superimposed fields on each side (again, one on the stand in the British Museum, two on the stand in Jerusalem). It is apparent, however, that the ROM figure is of larger dimensions than the two other ingot-bearers. Among them, it shows the closest resemblance to the figure on the stand in the British Museum, especially in the outlines of the upper torso, which look almost identical on both examples. The height of the latter figure is *c*.6.6 cm (*c*.3.4 cm from the lower part of its belt up to the head), and its width *c*.4.5 cm (actually the width of the ingot). Thus, the figure on the ROM fragment, with 3.89 cm for its preserved height and 6.19 cm for the ingot's width, could not have been much more than 2.0 cm taller, but it was distinctly wider. The ingot-bearer on the stand from the Bible Lands Museum in Jerusalem measures 8.1 cm in height. Although it is probably not much taller than the original ROM ingot-bearer, it gives a totally different impression due to its more elongated form and the much shorter length of the ingot (3.7 cm). However, this still leaves us in the dark about the size of the stand. There is also no way of knowing if the ROM ingot-bearer stood alone on one side or next to other gift-bearers or even if he, perhaps as in the case of the Kourion stand (Catling 1964, pl. 34c–d), was proceeding towards a seated figure. In short, we do not know what the exact subject and setting of the original stand was, or whether similar scenes were depicted on the other sides as well (sphinxes decorate the second preserved side of the stand in Jerusalem; see Achilles 1981), or even if the stand was wheeled or not. What we do know is that this stand originated in Cyprus.

This statement might seem too hasty, since the two other stands with ingot-bearers, in London and Jerusalem, are actually unprovenanced. The first was found on Cyprus by the early British excavations on the island but its findspot is unknown, while the second has no recorded provenance at all. However, that both these stands, which represent two of the finest products of their category, are creations of Cypriot smiths has never been questioned; not only have most of the Late Bronze Age stands been found on Cyprus or they display clear Cypriot affinities, but two moulds for the production of wax models for the figures decorating them, showing clear stylistic and iconographic similarities with figures of several stands, have also been found at Enkomi (Courtois and Webb 1979) and Hala Sultan Tekke (Karageorghis 1989). The prominence of Cypriots in the production of the stands is thus beyond question. Further iconographic, stylistic and technical analogies of the figures on the stands and figures on other works of Cypriot art, such as ivories and seals, to be discussed later in this paper, also point to Cyprus as the origin of the stands in the British Museum and in the Bible Lands Museum.

The same holds true for the ROM fragment, as its close connections to the other two suggest. The similarity extends even to the same type of garment apparently worn by all three figures. Even the almost naturalistic way that the smith chose to depict the rough surface of the oxhide-ingot is repeated on the ingots carried by the two ingot-bearers. Another important technical trait, present in the ROM fragment and in the Kourion stand but not in the stand in the Bible Lands Museum, is the fact that the ingot, seen from the rear, is divided into two parts with an empty space between them, a detail not discernible on the front (Figures 2 and 4). This detail elucidates the technique used to produce these figures and the stands in general.

TECHNOLOGY

From a technological point of view, stands are considered to be the hallmarks of the Cypriot bronze industry. The testimony of the stands to the abilities of the Cypriot metalsmiths is, however, not always appreciated for the right reasons.

There is no problem in recognizing that the only procedure that could be used for the production of such complex objects as the stands is the lost wax method. Here ends the general agreement, as in the majority of the relevant literature, stands are described as composed of independently cast parts soldered to each other (see Catling 1964, 190, 192, 203; Matthäus 1985, 300, 301, 326). Usually there is no discussion at all of another possibility, that of the casting of the stand in one piece, again using the lost was method (see, however, Macnamara 1985, 36–9; Macnamara and Meeks 1987, 60). The reason for this rejection is that this second method is thought to be impossible to follow, as it would require an extremely advanced technology. However, it is rather the separate casting and soldering of the different parts of a stand that would be practically impossible.

Theoretically, the only kind of soldering that would have provided the stands with the necessary strength and durability is either *hard soldering* or *fusion welding*. Both metallurgical joints require either the continuous flow of molten metal with a high melting point, or the application of extensive heat between the parts to be soldered, so that they would be forced to fuse to each other (Lechtman and Steinberg 1970; Maryon 1949, 102–8). The separate casting of every single piece, the cutting off of their ventilation and casting gates and the soldering to each other in the right position, repeated as many times as there are different parts on the stand (notice that Catling (1964, 205, no. 32) measures 150 component parts on a single stand), would make this method at least extremely time- and labour-consuming, if not impossible. There is furthermore no obvious explanation of the way in which it would have been possible for an ancient smith to keep the molten metal flowing consistently between the two parts or to release such an extensive and concentrated amount of heat.

Of major importance for the recognition of the method used to cast the stands is the fact that in the lost wax method the surface of the bronze artefact reproduces the original surface of the wax model. This leads to the appearance of some peculiarities on the bronze surface that are totally irrelevant to the properties of metal but are connected to the elastic nature of the wax. Some parts thus seem, in their elasticity, to retain the flexible character of their original raw material before they were turned into bronze (see, for example, the wavy line between the rods of the ring of the Kourion stand, in Catling 1964, pl. 34). This is a decisive criterion for arguing that, when the different parts were first brought into contact, they were still in their wax form.

Technically interesting is the making of the relief figures of the stands, whether in compact or in *ajourée* relief. In several cases, the repetition of the same figures on the stands' rings leaves no doubt that negative moulds were used to produce them. This method gave the smith, even an inexperienced one, access to high quality relief figures in almost no time.

Moulds were also used for the *ajourée* figures, as the two stone moulds from Enkomi and Hala Sultan Tekke mentioned above document. They both carry *intaglio* figures, paralleled iconographically and/or stylistically on several figures of the stands. The style of the animal and human figures engraved on the two moulds, with their elongated bodies, extremely thin waist and torso, broad shoulders, chest shaped by means of two cavities next to each other where the neck is inserted, find close analogies in seals as well as on stands (cf. the Enkomi mould to the

Figure 4
Same as 3, seen from the rear.

ring-stand from Myrtou-*Pigadhes* in Courtois and Webb 1979 and Catling 1964, pl. 36d, and the Hala Sultan Tekke mould to the figures on a stand also kept in the British Museum in Karageorghis 1989 and Catling 1964, pl. 35). The high artistic quality and, in some cases, the naturalistic rendering of most of the figures on the stands and the moulds can only be explained as the work of trained artists, experienced in the engraving of figures on stone. This description brings to mind the artists working in *intaglio par excellence*, the seal cutters. The greater size and the flat surface of the moulds, as opposed to the much smaller, harder and, in the case of the cylinder seals, convex surface of the seals, would have made their task easier. The use of moulds is also proved by the appearance of low ridges following the outlines on the back of the figures of many stands (as in Figure 4), due to the concentration of wax near the walls of the moulds (although not discernible in the ROM fragment and in the stand in Jerusalem).

The similarities in iconography, style and technique of the figures on the stands to the figures on seals are especially apparent in the group of seals called ‘the broad-shouldered group’ (Porada 1973, 264–8; Porada 1981, 16–19, no. 4; Achilles 1981), especially in comparison with the figures on the stand kept in the Bible Lands Museum (Achilles 1981). Their figures are characterized by broad shoulders and chest, thin waist forming a triangular torso, elongated bodies, broad surfaces with no internal divisions (Porada 1973, 264), broad cheeks and long, simple garments. It is these features that are almost exactly duplicated, although in positive form, on the stands. Similar traits are also present on the pithoi with relief

bands, also produced with the help of cylinders engraved by seal cutters (see recently Webb and Frankel 1994), and compare the seated figure on the stand in Catling 1964, pl. 35d to the figure on a relief band from Enkomi (Caubet, Courtois and Karageorghis 1987, 46–7, pl. XV:3).

In the two stands depicting men bearing ingots, in London (Figure 3) and in Jerusalem, moulds were used to produce the figures while their offerings were added separately on the back. The same method was used for the stand in the ROM. Furthermore, it is indeed possible that the smith possessed more than one mould: one with the body and the head facing in one direction, and another with just a head facing in the opposite direction (as in the case of the Kourion stand, where the harpist faces in the opposite direction to the gift-bearers (Catling 1964, pl. 34)). He was thus able to use the same type of body and the necessary head, if he wanted to depict a multi-directional procession or to place his bearers to the left and right of a central feature. It is perhaps because of this that the lower part of the hair of the ROM figure masks the area of the very short neck.

The ROM fragment represents only a small fraction of the original artefact, and no general conclusions can be reached about the technology used to produce this particular stand. Nevertheless, several distinct details strengthen the arguments already outlined against the use of soldering. It must be noted in advance that the break on top of the head, where it was attached to the upper frame, cannot be used as an argument for a metallurgical joint, which, supposedly, would have made this area weak. It is only because the joint between these two parts resulted in a groove that the break happened at this point.

On the ROM fragment and on the Kourion stand (Figures 1 and 3), part of the ingot is hidden behind the shoulders, while on the stand in the Bible Lands Museum it seems to rest on them. This difference is of no special meaning, since it depends on the way the figures were assembled, and even on aesthetics, since on the stand in Jerusalem the projection of the man's head on the ingot makes a very vivid impression. What is more important is the fact that on the ROM fragment and on the Kourion stand (but not on the stand in Jerusalem), the back of the figures is not totally flat, since the ingots are divided into two parts leaving an empty space between them. The ingots are thus clearly an addition, not included in the original design of the mould; that is, they do not form part of the same relief with the figure, but were added behind it, thus creating a second level and giving the relief a false impression of depth.

After the sax model of a figure with extended arms was prepared, a model of the ingot was cut out of a thin wax plate and attached to the back. Since the figure's upper torso is frontally displayed, with the arms in broad extension, the length of the ingot should be greatly over-emphasized, as on the ROM example, in order not to disappear behind its bearer's head. For this reason, it was vertically cut in two pieces, added independently on the back and covering the span necessary to reach the figure's hands. This kind of work would only have been possible in the joining of parts still in a flexible condition, that is not in metal. It follows that the parts were joined while still made out of wax. This explains the elastic stretch of the ingot-bearer's right arm on the Kourion stand (Figure 3) and on the ingot-bearer's left hand on the ROM fragment (Figure 1).

No kind of metallurgical joint could have the same result as the one seen in the three ingot-bearers. Seen from the back, the fine joints between the ingot and the left hand of the man and, seen frontally, between the right hand of the man and the ingot of the ROM fragment (Figures 1–2), are inconceivable as metallurgical joints. The extensive amount of heat or the continuous flow of metal would have affected the surfaces and would in no case leave such a fine groove, a joint with no signs of soldering material in between.

Even more conclusive is the examination of the outlines of the back of the ingot (Figure 2). The elimination of the thickness of its vertically cut off edges and their fusion with the flat surface of the figure give a very clear impression of the way the smith modelled his subject. These features still carry, even in the form of metal, the elastic properties of the wax and its ability to fuse with no clear joint to other surfaces, if smoothed. The same can be said for the slight widening of the four corners on the two opposite parts of the ingot, due to the slight pressure exercised by the smith, which would produce only temporary joints on the wax models, but would result in permanent joints in the casting. This procedure is indeed responsible for the kind of nose given to the ROM ingot-bearer, since the pressure of the wax figure on the wax ingot gave this feature a rather extraordinary shape and size. Similar observations can be made on the back of the ingot-bearer of the stand in the British Museum (Figure 4), although not on the back of the ingot-bearer of the stand in Jerusalem.

Although the torso of the ROM figure is totally flat, and with no indication of anatomy or garment, the relief of the head, and especially the face, is delicate and detailed. The clearly defined parts, such as the huge eye and eyebrow with the raised outlines, the thick lips inserted in a small area surrounded by a broad cheek, the protruding nose and strong chin, form a simple and well designed unity that combines schematization with naturalistic rendering, despite the low and disproportionate relief. The same affinities can be observed in the figures on other stands, as on the Kourion stand (Figure 3) or on another stand from Cyprus in the British Museum (Catling 1964, pls. 34 and 35), and are to be connected with the technology that produced the moulds for them.

The torso of the figure of the ROM fragment shows a remarkable consistency with the torso of the ingot-bearer on the Kourion stand (figures 1 and 3). The same curvilinear outlines and exactly the same kind of volume (or, in fact, absence of volume) characterize the rendering of the upper part of the body in both cases. Even the shape of the ingots is almost identical. The different size, however, prevents us from attributing them with certainty to the same workshop, as they clearly do not come from the same mould. The close similarity could tentatively be explained as resulting from the work of the same engraver, who would have produced two similar moulds for two workshops or even a reserve mould for the same workshop. But since the rendering of the torso is in fact too generic, while the characteristics of the face are also found on other Cypriot works such as seals, relief bands on pithoi, ivories and other stands, the resemblance could be attributed to the fact that they originate in the same artistic milieu.

The impression of monumentality that these figures make, despite their small size, is due to their subject as well as to the seemingly naturalistic rendering of their features. This impression, together with some iconographical and stylistic similarities, and especially the *ajourée* relief, has led to the connection of stands to ivories (Catling 1964, 209; Poursat 1977, 240; Achilles 1981, 278). Although resulting form totally different techniques, these two categories present several common features, which also extend to some figures on seals (cf. the stand in Matthäus 1985, 318, no 707, pl. 100 to the seal in Collon 1987, 72, no. 326; the same subject is present in ivory reliefs, Poursat 1977, pl. XXII). The fact that, in both techniques, the rendering of certain parts of the bodies of the animals and men is based in the same juxtaposition of schematised features (cf. Catling 1964, pl. 35b; Porada 1973, pl. XXXII:3), implies that the main reason for these similarities was the participation of the relevant artists in the same artistic environment. Since in the case of the stands, the desired result was the manufacture of relief works, the engravers responsible for the production of the moulds would, having in mind the image of the final work, try to control the depiction of the different parts in

order to make the end products look like the morphologically most closely related artefacts, the ivories. Exercise and repetition would bring the desired results.

The resemblance to the ivories was thus deliberate and is actually to be traced back to the typological origins of the four-sided stands. Their rich *ajourée* decoration is only paralleled in the fragments of ivories that once decorated furniture such as beds, chairs, stools and tables. Although no such furniture has survived complete on Cyprus or in the Aegean, its existence is proved by the ivory fragments provided with tenons to be fitted into wooden parts and by references in Linear B tablets (Ventris and Chadwick 1959, 240–6; Poursat 1977, 257–61; for Cyprus, Karageorghis 1985). The impression they made, with their cut-out figures among frames, constructed with horizontal, vertical and diagonal wooden struts, cannot have been much different from that made by the stands, especially those such as the one in the Bible Lands Museum (Achilles 1981) or another example in the British Museum (Matthäus 1985, pls. 104, 106). It is actually from such ivory decorated tables that the type of bronze four-sided stands originated since, to some extent, they had the same purpose, that is to support a vase (in the case of the stands) or other objects (in the case of ivory tables).

DATE

Concerning chronology, two problems are apparent: first, the date of the introduction of stands to the Cypriot bronze workshops, and, second, the longevity of their tradition. The 'automatic' reaction regarding the dating of the fragment in the ROM, as a reading of old and recent publications about stands shows, would be to date it either to the thirteenth/early twelfth century BC, to the late thirteenth/earth twelfth century BC, to the twelfth century BC alone, or, simply, to LCIIC–LCIIIA (Achilles 1981; Catling 1984, 78–82; Matthäus 1985, 321, 327; Lagarce and Lagarce 1986, 94; Muhly 1996, 54). This would conform to both old and new theories. The earlier suggestion, that the tradition of stands was inaugurated under strong influence of Mycenaean bronzeworkers arriving on the island in this period, is now disproved, and the issue of an indigenous thriving Cypriot bronze industry and of experienced bronzeworkers capable of producing whatever they wanted has been brought forward. In fact the stands owe very little, if anything, to the Aegean bronze industry, since neither the type nor the technology, was present there, while the iconographic similarities are only due to the participation of the smiths in the so-called 'International Spirit'. Equally disputed is the claim that the Cypriot bronze workshops ceased to flourish after the middle of the twelfth century BC (see Muhly 1980; 1988, 333–6; 1996; also Baurain 1980, 578–9).

Almost all Cypriot four-sided stands, wheeled or not, are deprived of any provenance data due to illegal or premature excavations on Cyprus. The same is true for many rod tripods. Even the excavated examples have some particular chronological problems. Several come from hoards (e.g. Matthäus 1985, 305–6 (c–d, k) and nos. 679–82), notorious for the difficulty in their dating (Knapp, Muhly and Muhly 1988). Moreover, the date of the hoards including stands or fragments of stands does at the very best only provide a *terminus ante quem* for the introduction of the stands into the Cypriot bronze workshops, since some time of unknown length must have elapsed between production, use, destruction and/or deposition of a stand in a certain archaeological context (cf. Morris 1989).

Some other stands are dated by the pottery found in association with them. This is not a valid criterion by itself, as pottery and bronzes are categories with different techniques, uses, durability and tendencies to be treasured and thus may not have the same chronological range.

Although pottery still forms our best chronological anchor, in the case of the stands it can only provide a *terminus ante* or *ad quem* for their use, not for their manufacture. The stand from the Pnyx (Catling 1964, 194, no. 6, pl. 28a), for example, dated by the ceramic grave offerings around the middle of the eighth century, is in fact a product of the Late Bronze Age of Cyprus, as close morphological similarities with Cypriot stands show (cf. Catling 1964, nos. 10, 12, 35, 45). Its last use in an Athenian Geometric grave erased all other use or uses it might have had in the time and space which elapsed between Late Bronze Age Cyprus and LG Athens.

The dating of the pottery associated with the stands — mainly Mycenaean IIIC1:b — and its validity in dating the stands, seem to have been misinterpreted or exaggerated. As a matter of fact, no stand said to be related by its context to the last thirteenth/early twelfth century BC, to which most scholars date the Cypriot stands, has ever been found in close association with pottery of this type and date. To be accurate, some stands have only been found on sites abandoned at this time (Matthäus 1985, no. 688; add mos. 715–16). The date of the abandonment is often transcribed as the date of the stands as well, although it only marks a pause in the use and circulation of the particular stands.

In the last two decades, and after long discussions concerning the date of the Mycenaean IIIC1:b pottery, a general consensus has been reached according to which this type of pottery began to be produced before the abandonment of the LC IIC sites and is to be connected with them and not exclusively with the years after *c*.1200 BC (Kling 1989; Sherratt 1991). Since the dating of the stands depended largely on the dating of this pottery, the immediate response to this agreement was to date them a little higher, that is the concluding decades of the thirteenth century BC (see Achilles 1981; Matthäus 1985, 346). This, in fact, is not a contribution of any importance to the problem, as it only alters insignificantly the chronological range of the stands. At the same time, the technological superiority and the typological complexity of these works leave no doubt that their production cannot only be a matter of some decades, but should be seen as a process including phases of experimentation and crystallization, leading to the establishment of a tradition and overlapping more than just one generation.

A much more stable basis for the dating of the stands is provided by the comparison of their reliefs to the Cypriot seals and relief bands on pithoi, as discussed above. Besides proving the Cypriot origin of the stand from which the fragment in the ROM has been detached, the stylistic and iconographic affinities of this and the other two stands with ingot-bearers as stated above, also provide some chronological clues. Both the Kourion stand and the stand in Jerusalem have no known contexts. However, the latter stand offers, through its close stylistic analogies with the figures on seals of the 'broad-shouldered group' and on several relief bands of pithoi, some of the best criteria for dating the Cypriot stands.

Seals are no easier to date than the stands, as they also tended to be treasured for centuries. But the seal group to which the stands show the closest similarities, the 'broad-shouldered group', is dated by specialists to the thirteenth century BC (Porada 1973, 264; 1981, 19), thus providing a good reference for the date of the stands as well. Similar dating problems prevail in the case of the pithoi with relief bands, but sherds of this type are often associated with contexts of the late thirteenth/twelfth century BC (Webb and Frankel 1994, 12–13), a fact that should allow at least the thirteenth century as the period for their manufacture and use, before they would be broken and discarded.

The lower chronological boundaries of the stands may seem to be easier to define, but, in fact, they are not. Five rod tripods are associated with contexts of the Early Iron Age, spanning the period from LC IIIB to CG II. All have been found in just four tombs of two

cemeteries, *Skales* at Palaepaphos and *Kaloriziki* at Kourion (Matthäus 1985, nos. 683–6). One of these (Matthäus 1985, no. 684), found with pottery dated to the CG I period, was in fact produced in a workshop active in the thirteenth century BC. A second one (Matthäus 1985, no. 703), dated by the ceramic finds of the tomb to the LC IIIB period, has its counterpart in a tomb with finds of the LC IIIA at the latest. A third example (Matthäus 1983, no. 685; Papasavvas forthcoming), associated with CG I pottery, but heavily repaired in antiquity, was probably in circulation long before its final deposition. From a methodological point of view, there is no good reason for using these examples as strong arguments for the continuation of the manufacture of stands on Cyprus in the early first millennium.

This is not meant to deny the continuation of the manufacture of stands in the Cypriot Early Iron Age. On the contrary, there seems to be no obvious reason why the Cypriots would be deprived of such an attractive artefact, since they obviously continued to have access to the raw materials, while their bronze industry continued to flourish even after the twelfth century BC and in the CG period (Karageorghis 1982). Since most of the surviving material seems to relate to the Late Bronze Age, this must be the period of the *floruit* of the stands, but this does not imply that they ceased to be produced after that period. It should also be noted that the use of durable stone moulds in the bronze workshops producing stands could have resulted in the manufacture of stands with figures stylistically earlier in date than their actual production.

This might even have been the case for the stand to which the fragment in the ROM belonged. The fragmentary nature of the object does not assist in its dating, but, since iconography in general seems to have neglected the depiction of oxhide ingots after the LBA, and since the facial characteristics are reminiscent of the ivories (cf. the faces on the ivory box from Enkomi, Murray 900, pl. I), seals (Porada 1973, p. XXXII:3; see also Dikaios 1969, pl. 138:5 (184)) and relief bands on the pithoi (Christou 1993, 739), all connected to the end of the Late Bronze Age, there is no more suitable place for the dating of this stand than this period. It is, however, impossible to assign it with certainty to the thirteenth or the twelfth century BC.

Any discussion of these dating problems must take into account the stands of Cypriot type found in the Aegean and especially on Crete (27 in total, out of which only five are of Cypriot, and 22 (11 four-sided stands with *ajourée* decoration and 11 rod tripods) are of Cretan manufacture; see the entries in Matthäus 1985, 304–6 and Rolley 1977, 115–19). Although typologically dependent on the Cypriot works, the Cretan stands are also distinguished by several morphological peculiarities, consistently repeated, which are absent in the examples from Cyprus, thus leaving no doubt that the former do originate in Aegean workshops (Schweitzer 1969, 174–80; Matthäus 1985, 308, 328–9, 347; see also Rolley 1977, 131–2 and Papasavvas forthcoming). There are, however, some notable exceptions, such as the Tiryns and Pnyx rod tripods (Catling 1964, 194, 195, nos. 6, 10, pl. 28a–b) and the four-sided stand from Tomb 201 at Knossos North Cemetery (Catling 1996, 194, 517–18, pl. 276).

Although all of the examples found in the Aegean are provenanced, there still exist difficulties in dating them. The reason is that most of them derive either from open-air sanctuaries (on Crete or at Delphi), known for their mixed stratigraphy, if they are stratified at all, or from Cretan tombs used for multiple burials. The fact that the stands on Cyprus are associated with contexts spanning the late thirteenth to the tenth centuries BC, while the contexts of the stands from Crete and the Aegean range from the eleventh to the eighth centuries BC, has led to different approaches by different scholars. Catling (1984) insists on the heirloom theory, concluding that a) no stands were produced on Cyprus after the middle of the twelfth century BC, and b) that the examples from Aegean sites or from Iron Age Cypriot sites

are treasured Cypriot products of the Late Bronze Age. Others, like Rolley (1977, 131–2), Matthäus (1985, 328–9) and Muhly (1988, 333–5), argue in favour of the continuation of the manufacture of stands even after the twelfth century and of the existence of an Aegean tradition of stands. That the concentration of finds on Crete is not due to a coincidence is also evident from the observation that if all the stands with Iron Age contexts were Cypriot heirlooms, then it would only be natural to assume that there must have been more stands in Cyprus itself to be treasured than on Crete. This is clearly not the case, as there are only five examples with LC IIIB to CG II contexts on Cyprus to compare with the 22 stands in the Aegean dated by their context or style of decoration in the Early Iron Age (Papasavvas forthcoming).

The heirlooms theory cannot be rejected as a whole, as it is valid for some stands, for example in the case of the four-sided stand with the earliest context found in Crete, excavated in the Subminoan Tomb 201 at Knossos North Cemetery (Catling 1996, 194, 517–18, pl. 276). Although in a very poor state of preservation, as a result of its exposure to the funeral pyre, this stand is a Late Bronze Age Cypriot artefact, as shown by its morphological and technological analogies to some Cypriot stands (Papasavvas forthcoming). On the other hand, the latest ceramic contexts associated with stands on Cyprus are dated to the CG I–II period (Matthäus 1985, nos. 683–5). It would have been an extreme oversimplification to argue that this chronological analogy has any true dating value for the transmission of the stands from one island to the other. The clay rectangular stand from Karphi (Boardman 1961, 133–4) proves that Cypriot stands had already reached the island of Crete in the twelfth century BC, if not earlier — although the fragments of clay investment of LM IIIA2 or IIIB date from Palaikastro on Crete cannot be connected to the manufacture of stands (Hemingway 1996; cf. Papasavvas forthcoming). The Karphi stand serves to emphasize the impression that the Cypriot works made on the Cretans, who not only appreciated a new type, but, eventually, established a new tradition, which was to survive in the first millennium BC.

While in terms of ceramics, architecture, seal-engraving, and even metallurgy and bronzework, Cyprus is often considered as a receiver of artistic and technological ideas, it is exactly the opposite that can be claimed in the case of the stands. Stands were not only imported but also copied in the Aegean, the Syro-Palestinian coast (Matthäus 1985, 315 (a), perhaps also 304 (a)) and even as far as the central Mediterranean, on the island of Sardinia (*c*.ten known examples; see Macnamara 1985). This phenomenon is one of the most interesting in the ancient history of Cyprus and serves to enlighten the nature and extent of the Cypriot bronze industry and trade.

It can be no coincidence that the tradition of the stands continued on the three great Mediterranean islands, Cyprus, Crete and Sardinia, which are connected with bronze production and circulation, either as producers or consumers, or as intermediaries in its handling (Muhly *et al*. 1988, 295). Even more important is the fact that Cypriot stands were not only exported to Crete and Sardinia, but they were also copied in the local workshops, with the use of the same technology.

Technology is not as easily transferred as typology, since it necessitates not only the visual contact with an imported object, but also the knowledge of how to make it. Their presence on these islands is, thus, a matter of technological and not typological transmission. The typological and technological complexity of the Cypriot stands, unparalleled in Crete or Sardinia, would not have allowed the copying of the type, if the necessary technology had not been mastered beforehand. In fact, if it had not been for the fine quality of the ROM fragment, there would be no clue as to the origin of this stand, as the same type was also produced on the

Syro-Palestinian coast. The inferior quality of the stand found in Megiddo, if it is accepted that it was made there, which was clearly following the exact type of the Kourion stand (cf. Catling 1964, pls. 33d–34), permits the suggestion that the technical capabilities of the Cypriot smiths were not surpassed outside Cyprus.

It is unnecessary to differentiate between the production of stands in so many different places other than Cyprus. They should rather be viewed as a common phenomenon and a uniform activity to be attributed to Cypriot initiative. The metallurgical expansion on Cyprus, especially in the LC IIC period, in combination with an extensive production of bronze artefacts, coincides with Cypriot trade in the Aegean and the central Mediterranean, aiming both at the supply of Cypriot copper and to the obtaining of tin (see Vagnetti and Lo Schiavo 1989, 231–3). The Cypriot technological experience would travel as the smiths presumably did, like the one travelling with his equipment on the Cape Gelidonya ship (Bass 1967, 117). This experience could even be used as an exchangeable commodity, and it is perhaps not too far-fetched to claim that Cypriot stands were recognized as such already in Antiquity, thus serving as the best circulating promotion of their raw material (cf. Sherratt 1994).

Although they were products of great technical and typological virtuosity, stands were not confined to a small number of smiths, but were produced in many different workshops, a reflection of the high standard of Cypriot metalwork. The number of stands produced on Cyprus must have been greater than the actual finds suggest, as their advanced technology implies, and as new additions to the corpus, like the fragment in the ROM, document.

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