

POTTERY AT MONTE LEONI

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The study of bronze age settlements on the Po Plain has a long history: one going back to the work of Pigorini, Strobel and Chierici at sites known as "Terremare" and the beginnings of Italian prehistory itself.¹ By the end of the last century, many "terremare" had been excavated or explored; the distribution map of the region of Emilia was already dotted with numerous sites dating to the bronze age. Potentially, the region seemed to offer one of the most promising areas in Europe for the study of the bronze age. The first seven decades of the present century, however, were to mark a long, fallow period in which few advances were made in terms of new knowledge about the archaeology of bronze age sites.² One of the few publications of note to appear during this interval was *Le Terremare*, an attempt at a synthesis by Säflund, a Swedish archaeologist.³ The major focus of his interest was that of trying to work out a basic chronology for the bronze age in the region. But given the lack of systematic recovery of remains on the early excavations and also the fact that when finds were available in museum collections, they often lacked specific provenience at a site, major limitations stood in the way of such a study. Thus, the returns were modest in comparison with the effort that Säflund put into his synthesis. What was really called for was not a refinement of typological schemes with reference to the old material but a new round of more modern excavations at the sites. It is only in the last quarter of this century, with the excavation of sites such as Monte Leoni, S. Rosa (Poviglio) and Tabina di Magreta, that a new cycle of research has been initiated.⁴ In the literature, both old and new, there is still no site where the pottery recovered has been documented in a comprehensive way. The aim of this report is to present such a documentation for one of the richest deposits of material at the site of Monte Leoni.

Monte Leoni, which was identified during the course reconnaissance work in 1971, is located 15 kilometres south of the town of Parma in the foothills of the Apennines.⁵ Three seasons of excavations

have been conducted at the site.⁶ The settlement, which offers a good view over the Po Plain, is situated near the top of a hill which is defined by steep slopes on all sides except the north. The area available for habitation on the hill top itself is only about 1.5 hectares. A major focus of the research at Monte Leoni has been on the environmental setting and the subsistence economy of the site.⁷ It has been possible to show, for example, that the settlement had a mixed economy based on the cultivation of barley, emmer wheat and broomcorn millet and the husbandry of sheep/goat, pig and cattle.⁸ The excavation has also brought to light one of the few houses known for the bronze age in the region. The structure (see fig. 1) has a rectangular shape and measures approximately 9 metres in length by 5 metres in width; its lower part was dug into the hill for a depth of about 1 metre and its walls are made of a wooden framework (mainly oak) covered with earth.⁹ On the basis of a series of radiocarbon dates, as we shall see below, the age of the structure and the major part of the occupation of the site should fall in the interval between 1,550 B.C. and 1,350 B.C. or what conventionally is considered to be the middle bronze age in the region.¹⁰ The bronzes and ceramic vessels found at Monte Leoni would seem to be in good accord with such a chronological attribution.¹¹ In fact, the vast majority of the artifactual finds recovered during the course of our excavations at the site come from two large dumps; the pottery from one of these will constitute the main subject of the present article.

The locations of the two dumps are shown in Figure 1. One of them is the so-called Tm dump, which occurs on the north side of the excavation and which has been described previously.¹² It has an oval shape and measures approximately 8 meters in length, 4 metres in width and 0.5 metres in depth in its deepest part. Excavated in terms of a series of eight horizontal spits, its dark soil yielded a total of 11,962 pieces of pottery, daub, bone and stone. On the basis of the refitting of sherds, the inference can be made that the filling of the dump took place

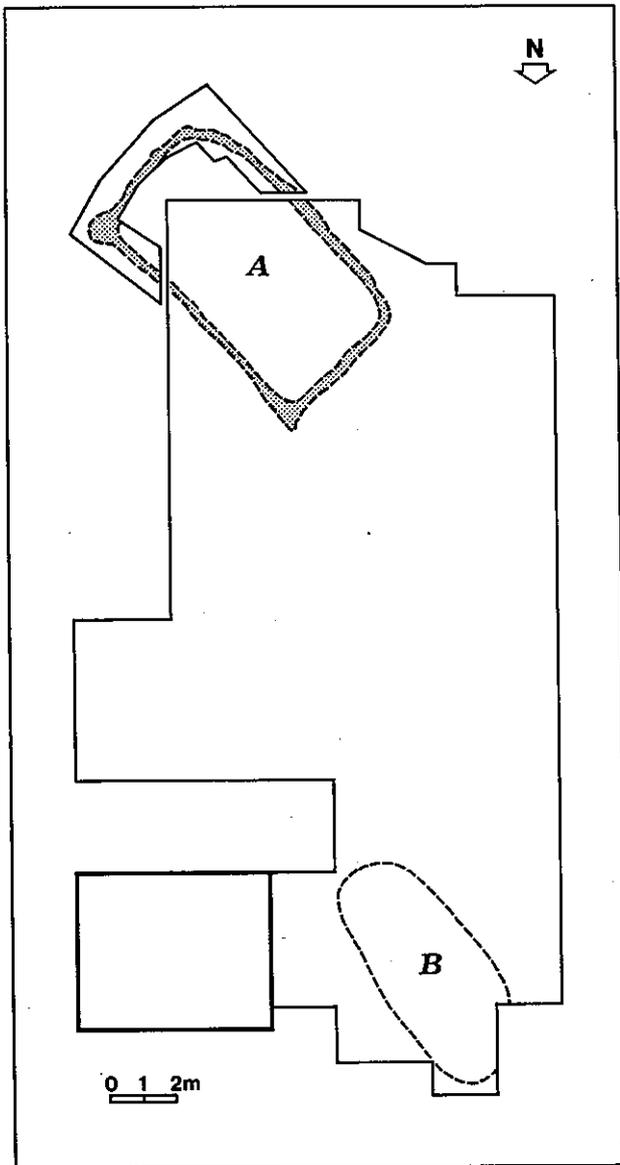


Fig. 1. - Plan of the excavated area of the site of Monte Leoni.

in essentially a horizontal manner, which seems to have been a consequence of localized episodes of the discard of refuse.¹³ The second dump corresponds with the structure on the south side of the site, described earlier. As part of the devolutionary use of the area once the house had burnt down, refuse of all kinds was dumped here.¹⁴ The soil again has a dark grey to blackish colour and is full of carbonized organic matter; large quantities of pottery, daub,

bone and stone were likewise recovered from the fill of this large feature. So far, only about one half of the dump deposit, which has a total volume on the order of 32 cubic meters, has been excavated in this case. There are two further points that need to be made here in terms of background information. The first is that, at the base of the dump fill, ceramic remains are often found which are associated with the burnt occupation surface of the house itself. In some places, one encounters whole vessels found *in situ* that appear to have been broken during the collapse of the burnt structure.

In other cases, it is less clear whether the sherds that occur on the house surface belong to the actual phase of habitation of the structure or whether they represent instead some of the earliest material discarded in the dump, which happened to become compacted into the surface of the abandoned house. It is in part for the latter reason that the ceramic remains from the dump will be examined in conjunction with those from the underlying house surface in this study. In terms of chronology, both sets of material should have much the same date. This brings us to the second point, which concerns the nature of the large, open pit that was produced when the house was destroyed and that now began to be utilized as a dump.

In the context of the heavy clay soils at Monte Leoni, such an open hole will tend to fill up with water in the wetter seasons of the year.¹⁵ Furthermore, under natural conditions, the walls of the pit would tend to cave in, if it were left open for any substantial length of time. The implication is that the use of the dump began fairly soon after the destruction of the house. In other words, the material occurring on the house surface and that occurring within the dump should date to more or less the same time.¹⁶

As mentioned earlier, there are several radiocarbon dates that are available from carbonized pieces of wood that come from the dump (the first three samples below) or that come from the burnt walls of the structure (the fourth sample). The central values for dates are cited here in calibrated years B.C.¹⁷

GrN-9274	1108-24	± 55 B.C.
GrN-9275	1519	± 130 B.C.
GrN-1276	1433	± 120 B.C.
GrN-9277	1445	± 55 B.C.

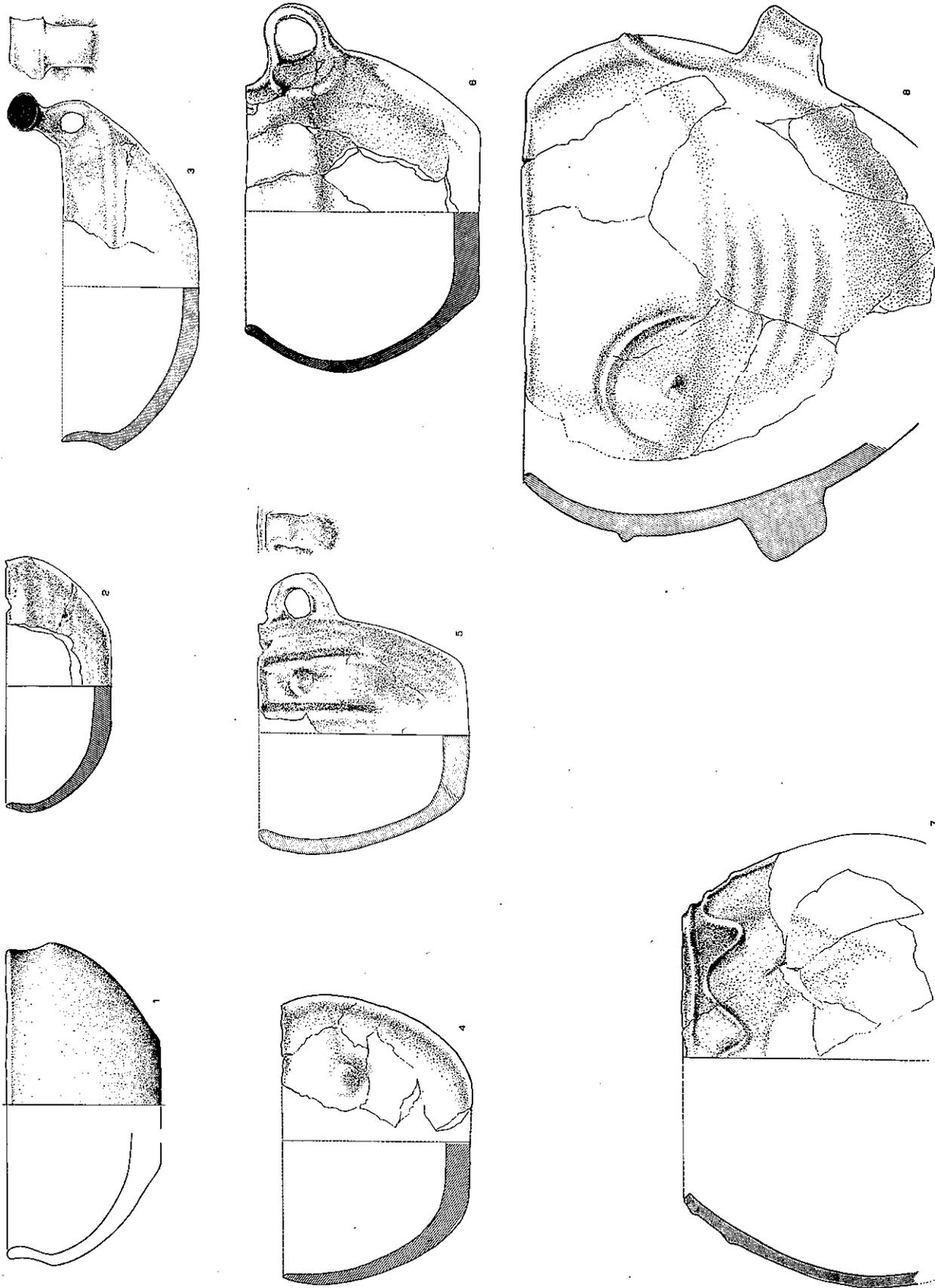


Fig. 2. - Vessels recovered from the house surface.

It would appear that the first date is anomalous and too young. The other three dates form a reasonably coherent group; they also have much the same age as the two samples (from elsewhere at the site) that were published previously.¹⁸ With due allowance for the age of the piece of wood (the life of the tree) being slightly older than the time when it actually entered the archaeological record, it is likely that the dump and the house both date to the fifteenth century B.C.

It is worth describing briefly the approach that was used to the analysis of the ceramic remains and the goals that the study set for itself. The decision was made to study the pottery in terms of vessels and not sherds or vessels parts. In addition, the investigation would try to avoid giving a privileged treatment to certain classes or types of pottery (such as fine wares) over others. In other words, an attempt would be made to document the full range of ceramic vessels that are found in the dump. The study has involved the examination of a total of 155 kilograms of pottery recovered from the dump and the house surface. The initial step entailed the joining of the sherds that belong to a given vessel; this was followed by the sorting of the vessels and the remaining sherds (whenever possible) into groups on the basis of their shared properties. As part of the work, a detailed description was made of the individual vessels in terms of the following attributes: vessel form, vessel size, clay paste, surface finish, surface colour, quality of firing, lip profile of the rim, wall thickness (at various places in the profile), form of the base, handles, and decoration. The approach taken to the recognition of the respective vessel groups is one that emphasizes the overall similarity among the members of a given group.¹⁹

In order to avoid possible confusion with the classes and types of other classificatory systems or typologies, the term "group" will purposefully be used throughout this study. At the stage of the establishment of the set of vessel groups, reference was also made to the vessels recovered from the Tm dump (mentioned above), which meant that more than 250 different vessels was employed in the basic definition of the groups of pottery at Monte Leoni. Table 1 gives the number of vessels that belong to each of the eleven groups that were recognized. Each group will be described below and, in Figures 2-7, one or more vessels from each group will be illustrated. A subject of particular interest will be the

Table 1

Group	Dump	House surface	Total
A	5	2	7
B	7	12	19
C	3	0	3
D	4	2	6
E	8	1	9
F	20	10	30
G	4	0	4
H	8	4	12
I	9	3	12
J	13	9	22
K	12	8	20
	93	51	144

The number of vessels in the respective groups.

degree of variability among those vessels that are classified as belonging to a given group. It will also be of interest to consider the number of vessels represented in each group in the wider context of the ceramic assemblage as a whole (see table 2).

Group A consists of low vessels with an open shape (fig. 3: 7-9). At the rim, the diameter falls in the range of 15-25 centimetres and the overall height of a vessels stands between 4 and 6 centimetres. Both the walls and the base (up to 19 millimetres) of a vessel are usually quite thick. The clay paste is a coarse one that often includes large pieces of filler. The surface colours tend to have a mottled appearance (a light reddish or orangish colour is often seen in combination with tan or buff colours on the same vessel). While the exterior is finished only in a rough way, the interior often presents traces of

Table 2

Group	Number	Percentage
A (pans)	7	5.6
B (beakers)	19	15.3
C (vats)	3	2.4
D (large bowls)	6	4.8
E (dolia)	9	7.2
F (jars)	30	24.2
G (biconical vessels)	4	3.2
H (bowls)	12	9.7
I (carinated bowls)	12	9.7
J (cups)	22	17.7
	124	99.8

The relative proportion of the vessels in groups A-J.

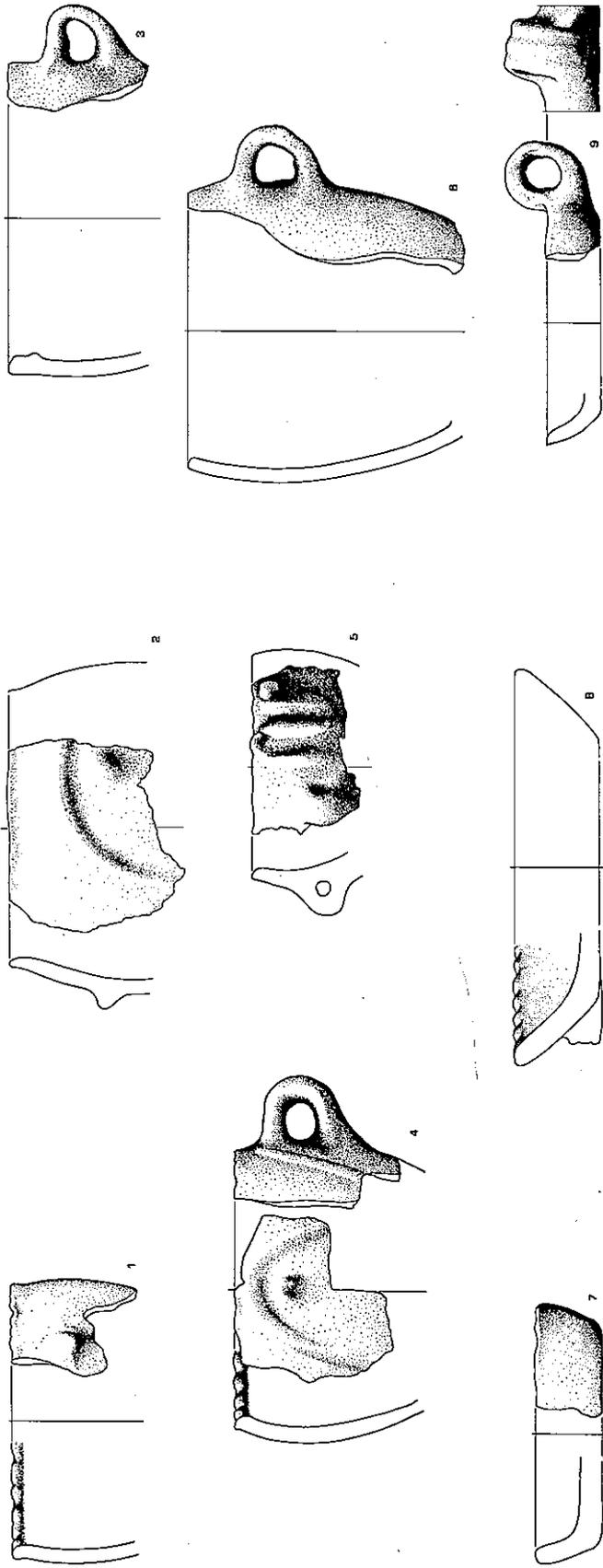


Fig. 3. - Vessels in groups A and B. With the exception of nos. 1, 4, 8 and 9, all of the vessels are from the dump.

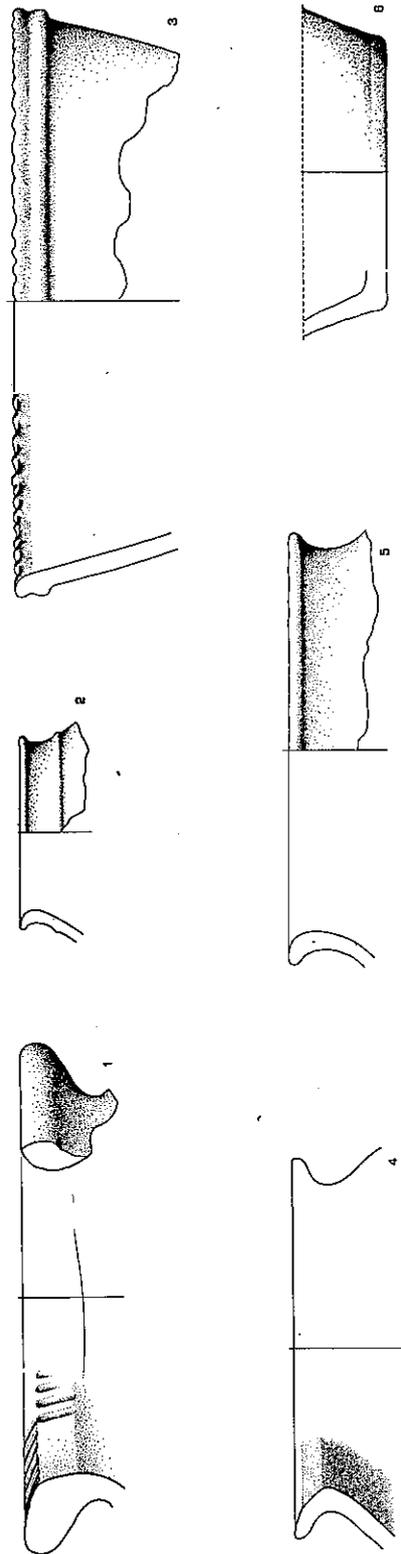


Fig. 4. - Vessels in groups C and E. All of the vessels are from the dump.

a white glossy coating. The rim is given a rounded treatment; in one case (fig. 3: 8), finger-pinching is used on the rim. Most of the vessels appear to have no handles; there is one case (fig. 3: 9) where a single loop handle comes up above the rim. From the examination of the bases (some of which show signs of having been placed repeatedly on a fire), it appears that the vessels in this group were used for some sort of cooking. A common name that would seem to be appropriate for this group would be pans (or "teglie" in Italian).²⁰ It will be noted that while the vessels are generally similar to one another (they are all quite different from the vessels in the other ten groups), there are some minor variations between each of them in terms of such things as their sizes, the presence of a handle (uncommon) or the finger-pinched treatment of the rim (again uncommon).

The vessels in group B have basically a cylindrical shape but with the upper part of a vessel being somewhat wider than its lower part (fig. 2: 5-6; fig. 3: 1-6). In terms of size, the diameter at the rim is approximately the same as the height of the vessel; both measurements commonly fall in the range of 14-16 centimetres. The walls of a pot have a thickness of 7-10 millimetres; the base is normally thicker (up to 15 millimetres). As in the case of group A, the clay paste is a coarse one. The exterior surface of a vessel often has a rusticated appearance and a mottled brownish colour; the interior surface is both smoother and darker in colour (often dark grey to black). In all except two cases (fig. 3: 1 and 4), where finger pinching is employed, the lip of the rim is either simply rounded or else slightly flattened (some local variation in how the rim is finished may be observed on different sides of even a given vessel). The presence of a single loop handle (with a vertical orientation and with its top commonly starting 2-3 centimetres below the rim) is a characteristic feature of the vessels that belong to this class. Two-thirds of the pots (14 out of a total of 19 vessels) also present some form of applied plastic decoration, which includes the use of cordons and bosses. Two quite different decorative motifs are sometimes employed: one involves the use of two or three vertical bars and an associated boss or bosses (fig. 2: 5; fig. 3: 5) and the other an arching cordon with a boss at the centre (fig. 3: 2 and 4). It will be noted that one of the vessels (fig. 3: 3) has a thin cordon applied on its interior just below the rim; this was probably meant to hold a lid.

In other archaeological contexts at Monte Leoni (the Tm dump and stratum 133), two vessels that belong to this group have a small, single spout just below the rim; no example of such a variant was recovered from those parts of the dump and the house surface that have been excavated to date. In light of the heavy bases (again with signs of having been exposed to fire), it is possible to suggest that the vessels in this group were commonly used for heating up or cooking liquids of one kind or another. It is worth adding that most of the vessels in the group have a capacity in the range of 1 to 1.5 litres. A convenient common name for the group would be beakers (or "bicchieri" in Italian). Again, within the group, the vessels do not show a high degree of standardization but rather display a fair amount of variability in terms of their forms (note, for example, the baggy profile of the vessel in fig. 2: 6), their sizes (compare, for example, the vessel in fig. 3: 5 with the ones in fig. 2: 5 or fig. 3: 6), the treatment of the rim (the two examples of finger-pinching mentioned earlier), their decorations (the different motifs of applied cordons and bosses noted above), and their overall refinement (a small number of the vessels have a finer fabric as well as a more refined surface finish).

Group C is made up of large, open vessels whose walls are straight-sided (fig. 4: 3). Two of the three vessels in this group have a rim diameter of 50 centimetres or more. The estimated heights of these two vessels would be 35-45 centimetres; note that it is extremely difficult to obtain the full profile of such large vessels from joining sherds. The existence of several large bases (see, for example, the one in fig. 4: 6), which probably belong to vessels in this group, helps in the reconstruction of the heights of such vessels. The walls of both of these two vessels are very thick (up to 18 millimetres in one cases). The third vessel is somewhat smaller in size; it has a rim diameter of 26 centimetres. A coarse clay paste with large inclusions is used for all three vessels. The outer surface of a pot is finished in a rough manner, while the interior has a much smoother finish. In terms of their surface colours, the exteriors and the interiors are both mottled in appearance (light grey and red in the case of the two larger vessels, which appear to be over-fired in places; note the difficulty of firing such large vessels). The rim of all three vessels has been finished with finger pinching, which tends to bevel the lip profile toward the interior of

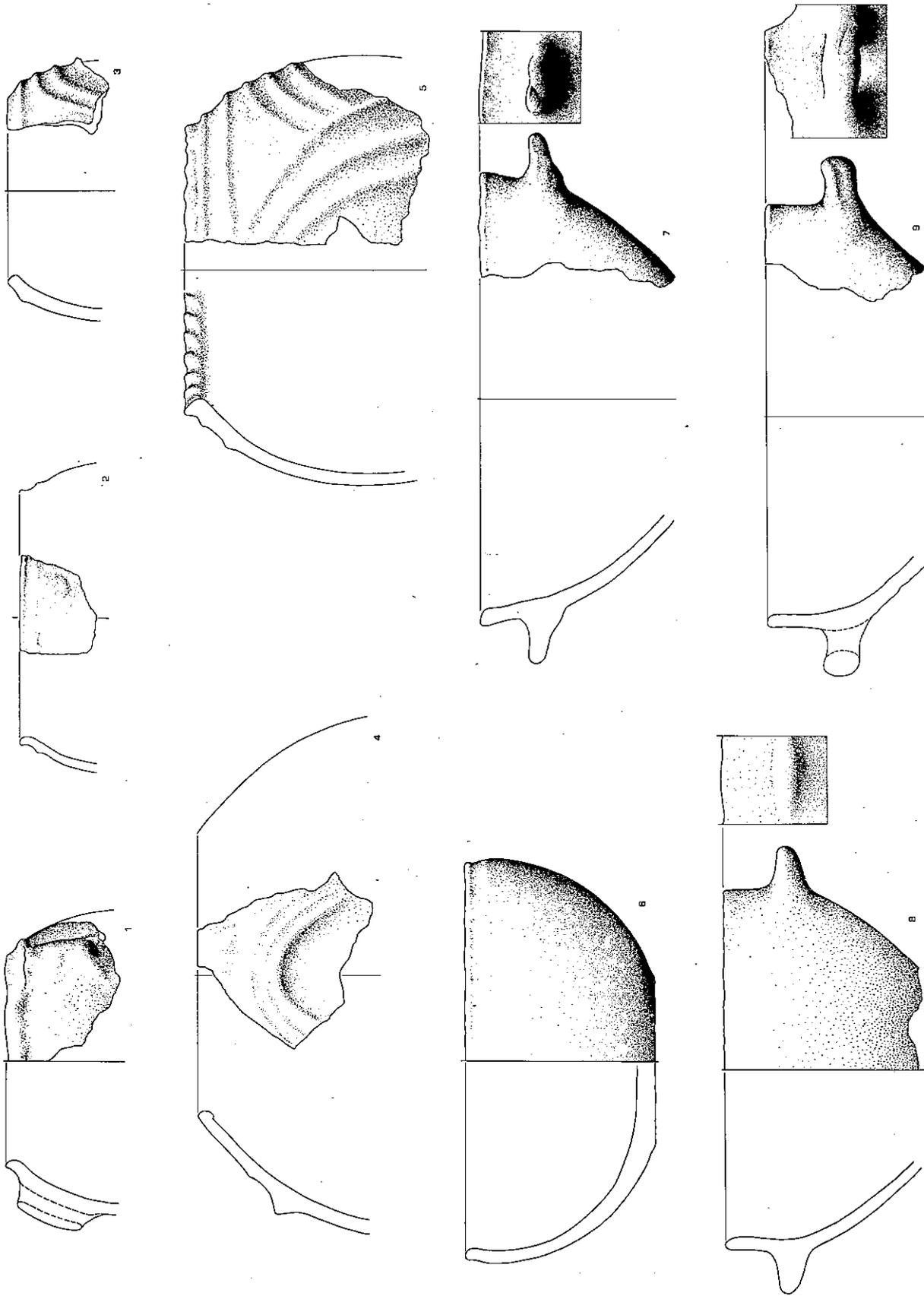


Fig. 5. - Vessels in groups D and F. With the exception of nos. 3 and 5, all of the vessels are from the dump.

the pot. All of the vessels also have a single continuous cordon (running horizontally) applied just below the rim (fig. 4: 3). It is possible that these pots were used in the preparation of certain foods (ones involving a large bulk of material) or raw materials or else they served as containers for purposes of storage. A suitable name for this group would be vats (perhaps "orci" or "tini" in Italian). There are too few examples here to discuss the question of variability within the group.

Group D consists of large open bowls (fig. 5: 6-9). The largest vessels have a diameter at the rim of about 35 centimetres; there are others that are closer to 25 centimetres. The diameter of the base of a vessels is roughly about one-half of the rim diameter. For the most part, the vessels have a height of 10-15 centimetres. The thickness of the wall of a vessel in this group is commonly 8-10 millimetres. A coarse to medium clay paste is used in the fabrication of the vessels. The exterior surface usually has a fairly rough finish and its colours tend to be mottled (ranging from light grey to brown and orange). It is common for the interior surface to have a smoother finish and darker colours (sometimes even black); there is one case (fig. 5: 6) where the interior has been burnished. The rim has a simple rounded treatment in all except one case (fig. 5: 7) where it has been slightly flattened. The vessels often have what may be called ledge handles (fig. 5: 7-8) which are made from solid strips of clay with a horizontal orientation placed on opposite sides of a vessel (the pot is lifted by placing ones hands against the vessel's walls just below the ledges).

There is also one case (fig. 5: 9) where the horizontal strip of clay has a perforation. The vessels in this group appear to have no decorations (with the rare exception of an isolated boss). It is reasonable to think that the vessels were probably used in a wide variety of ways, especially in activities involving food preparation. A common name for the vessels in this group would be large bowls (or "scodelloni" in Italian). The vessels in this group are basically utilitarian in nature and exhibit a minimal amount of elaboration. One can observe, however, a certain degree of variability in terms of the shape (note the angular aspect of the profile in fig. 5: 8), the size, and the surface finish of the vessels in this group.

Large closed vessels with an everted rim comprise the vessels in group E (fig. 4: 1-2 and 4-5). Five of the vessels have a rim diameter of 35 centimetres

or more; the smallest vessel measures 19 centimetres in diameter at the rim. Again, it is difficult to obtain the full profiles of such large-pots on the basis of joining sherds. A guide to overall vessel size is offered by the example of a vessel of this kind recently recovered at S. Rosa (Poviglio).²¹ This would suggest then that the vessel shown in Figure 4: 1 (with a rim diameter of 27-centimetres) had a maximum diameter (in the middle of the pot) on the order of 50 centimetres and a height on the order of 45 centimetres. The thickness of the walls of the larger vessels is usually in the range of 10-15 millimetres. The clay paste used for making the vessels in this group is a coarse one with large pieces of filler. The exterior surface usually has a rough finish; there is one case (fig. 4.1) where the treatment is more refined and the exterior has been burnished. It is common for the interior surface to have a somewhat smoother finish; in one case (fig. 4: 5), local glossy areas can be observed on the interior surface of a vessel. Seven of the vessels in the group show evidence of having been slightly overfired in places, which may account for the mottled colours (light grey and reddish or pinkish tones) observed in most cases. The challenge presented by the firing of such large vessels will be noted; some of the vessels may represent wasters (that is, pots that were mis-fired). The flanged or everted rims are a notable feature of the vessels in this group. In some cases (fig. 4: 1-2), the lip profile is carefully beveled in steps on its interior; in other cases (fig. 4: 5), the rim is less flared and the lip has a smoother profile. Decoration is not common on the vessels under study but it can take two forms: in one case (fig. 4: 1), short parallel channels have been impressed in groups in the bevel of the rim and in two other cases (fig. 4: 2), a cordon has been applied horizontally around the neck of a vessel. In terms of their use, the vessels all would have had a fairly large capacity and it is likely that they served as containers for purposes of storage. A common name for the vessels that belong to this group would be dolia. Again, there is no indication of a high degree of standardization within this group; the vessels may differ from one another in terms of their sizes, their surface finishes, their lip profiles and their decorations.

Group F (fig. 2: 7 and fig. 5: 1-5) consists of vessels with closed forms but without flared or everted rims (in contrast with the vessels in group E). It is common for the vessels to have a rim

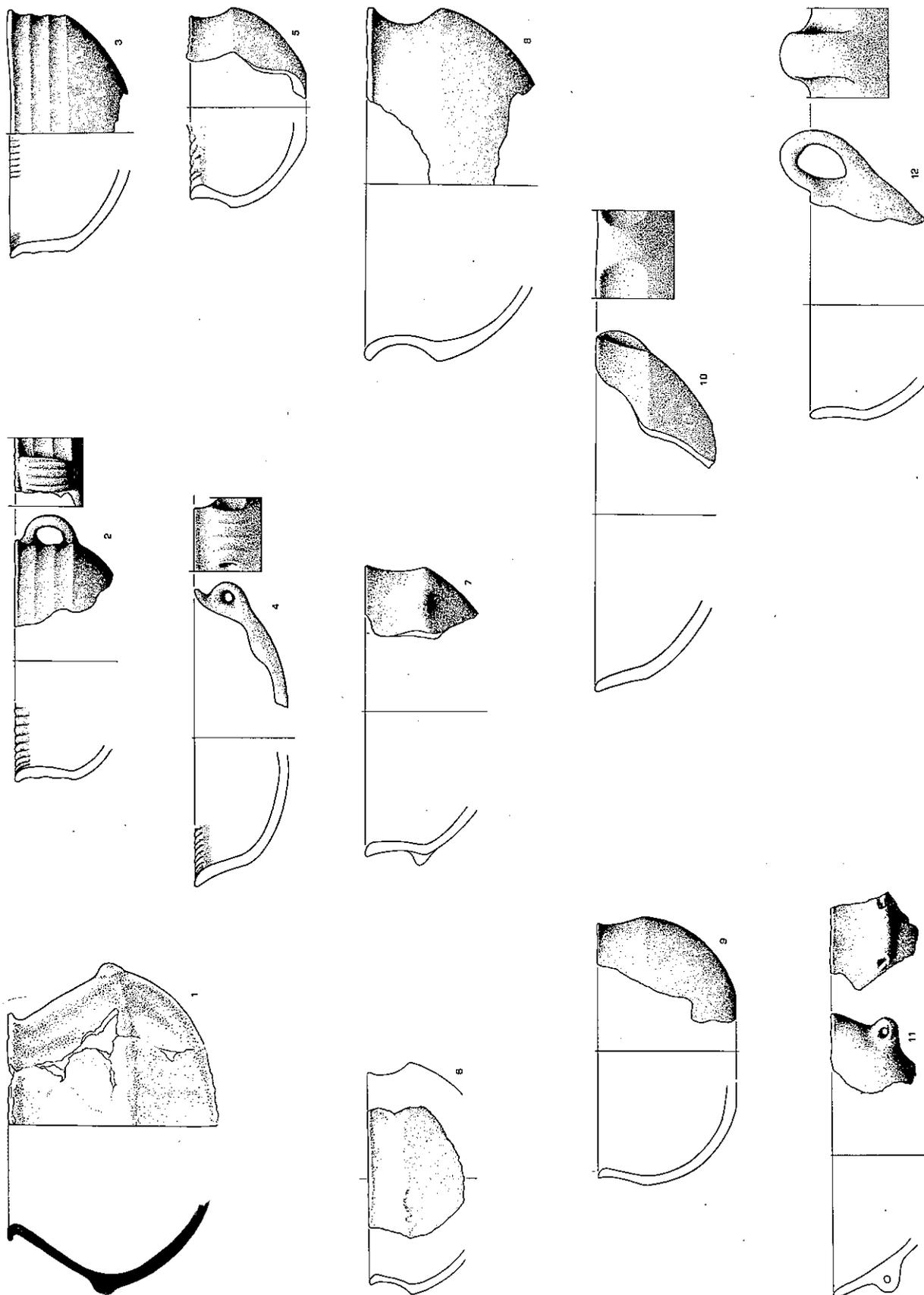


Fig. 6. - Vessels in groups G, H and I. With the exception of no. 2, all of the vessels are from the dump.

diameter in the range of 15-22 centimetres, although there is one case (fig. 5: 3) of a vessel with a smaller size. At its widest point, a vessel often has a diameter that is about one and a half times its rim diameter. Again, for most of the vessels, it is difficult to obtain a direct measurement of a vessel's height. In the case of one of the larger pots in this group (fig. 2: 7), the vessel would appear to be on the order of 30 centimetres tall. Wall thickness for the vessels in this group is normally in the range of 8-11 millimetres. The clay paste employed varies from coarse to medium. The exterior of a vessel may present a rough to slightly smoothed surface; there is usually a mottled appearance in terms of colour (orange, light grey or even darker colours). The interior often has a more refined and smoother finish of its surface and also darker colours (dark grey to black). In at least one case (fig. 5: 4), the interior has been burnished and has a glossy appearance. In terms of the treatment of the rim, a common feature is a flattened lip, which slopes in diagonally toward the vessel's interior.

Finger pinching of the rim is rare (fig. 5: 5). Present on several of the vessels (fig. 5: 1) are lugs located just below the rim (with their perforation having a vertical orientation); these vessels could have been suspended by means of cordage through such lugs. All of the vessels in the group appear to have some kind of applied plastic decoration. Although there are a few exceptions (fig. 5: 4), it is common for the vessels to have a thin, continuous cordon that runs parallel to the rim (in a position within 2 centimetres of the rim). Applied bosses are also observed (fig. 5: 2-3). In some cases, the decoration is more elaborate: an additional serpentine cordon running around the body of the vessel (fig. 2: 7) or a local field of arching cordons (fig. 5: 3 and 5). In functional terms, the vessels -- some of which have a fairly large capacity (fig. 2: 7) -- may have been used for purposes of storage of one kind or another. Jars would be a common name that is appropriate for the vessels in the group (or "olle" in Italian). There is again considerable variability among the individual vessels in terms of such things as their sizes, their surface finishes, their decorations, and the presence (or not) of vertical lugs. The large closed vessel shown in Figure 2: 3 (which has, however, no rim cordon, a different kind of handle and also a larger diameter at the rim than the vessels just described) may be loosely related to this group as well.

Vessels with a biconical form (fig. 6: 1) comprise group G, which is represented by only four pots (see table 1). The diameter at the rim is on the order of 16 to 18 centimetres and the height of a vessel is roughly the same as its rim diameter. The wall thickness is in the range of 6-8 millimetres. A medium clay paste with few large inclusions is used for making the vessels in this group, which in general tend to be more refined than those in groups A through F. It is common for the exterior of a vessel to have a smooth, burnished surface; the colour (dark grey to blackish) is more uniform over the vessel as a whole. The interior surface usually has a dark colour as well but it is less well finished in some cases than the exterior. In terms of the treatment of the rim, a characteristic feature is a lip profile that curls outward (fig. 6: 1). The vessels would appear to have no handles as such; decoration is limited to isolated bosses at the angle point in the middle of the vessel (fig. 6: 1) in the few pots that are available for study. A common name appropriate for the group would be biconical vessels (or "vasi biconici" in Italian). Given the small number of vessels, which suggests by the way a rather limited use, we are not in a position here to say much about the variability between the vessels in this group.

Group H consists of bowls of a medium size (fig. 2: 2 and 4; fig. 6 (12)). The vessels are smaller in size than those in group D (the rim diameters are in the range of 14-20 centimetres) and they tend to be finished more carefully than the larger coarse ware vessels. The wall thickness is normally in the range of 6-9 millimetres. A medium to fine clay paste is employed in making the vessels. In many cases, either the exterior surface or the interior surface has been burnished. There is considerable variety in the surface colours of the vessels (from darker ones such as brown and black to light grey and even orange). With respect to the treatment of the rim, it is common for the pots in this group to have a simply rounded lip. Decoration appears to be uncommon; when it occurs, it takes the form of applied pieces of clay such as isolated bosses (fig. 2: 4). It may be useful to distinguish three sub-groups within group H. The first of these (H-1) includes four bowls that have no handles or perforated lugs. The second sub-group (H-2) comprises those pots with a more conical (straight-sided) profile and with the presence of perforated lugs (with a horizontal orientation) on opposite sides of a vessel (fig. 6: 11). There are four

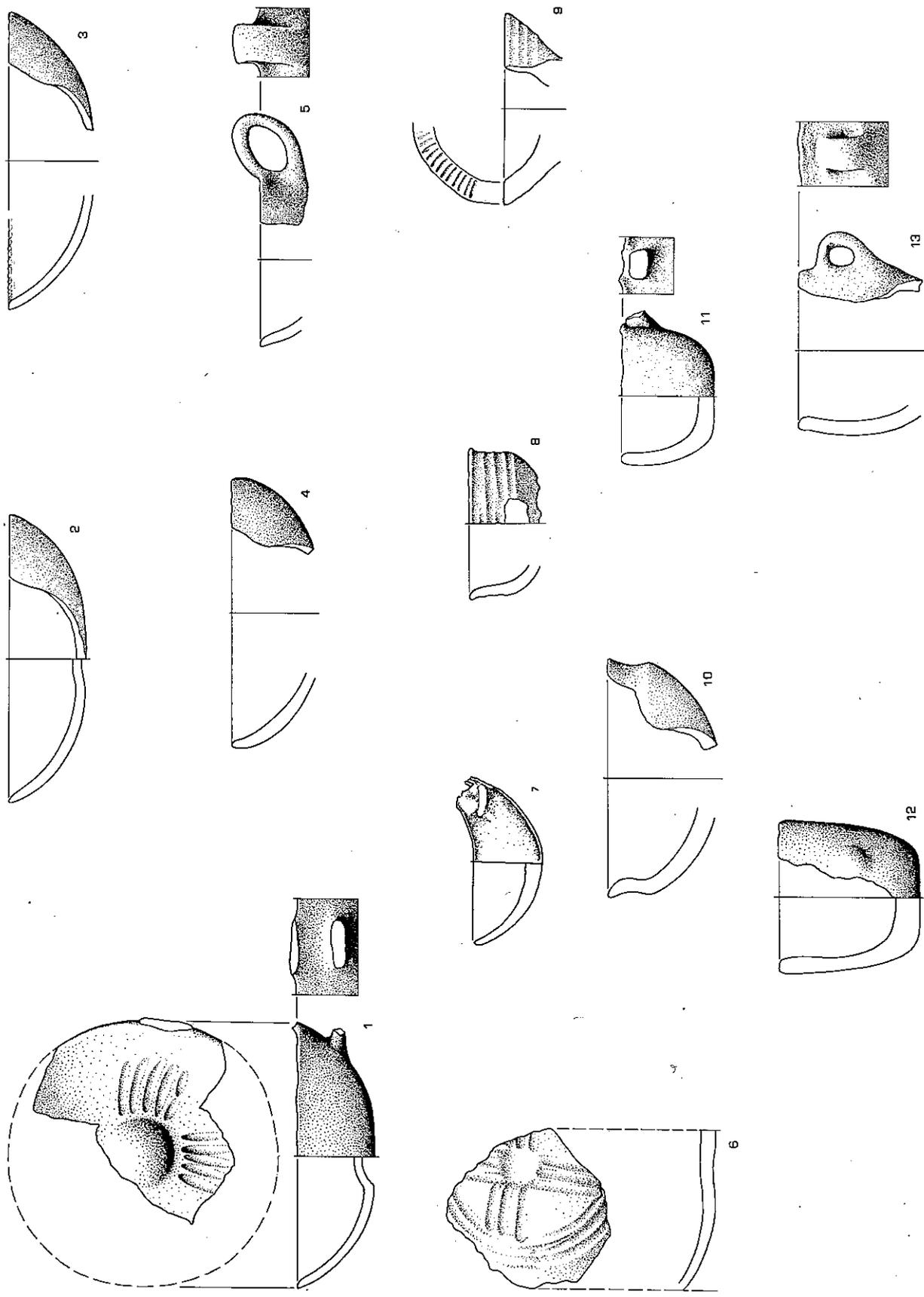


Fig. 7. - Vessels in groups I and K. With the exception of nos. 2, 3, 5, 8, 9 and 10, all of the vessels are from the dump.

vessels of this kind; their perforated lugs presumably allowed them to be suspended by means of cordage.

The third sub-group (H-3) includes three vessels that have a single loop handle (approximately 3 centimetres wide) that starts from the rim, rises up above it (2 centimetres or more), and returns to the wall of the vessel (fig. 6: 12). It will be noted that handles of this kind are sometimes observed on the fine cups in group J (fig. 7: 1 and 5). But in the present case, the pots that belong to sub-group H-3 are both deeper and larger in diameter than the vessels in group J and they are also less refined in terms of their fabrics and surface finishes. It is likely that the vessels in group H had a wide range of uses. A common name for the group as a whole would be bowls (or "scodelle" or "ciotole" in Italian). It might also be possible to call the vessels in sub-group H-3 large (coarse) cups (or "tazze" in Italian). In terms of variability, some minor differences can be observed within even a given sub-group: for example, surface finish (the use of burnishing or not) and decoration (the presence of applied bosses or not) in the case of sub-group H-1 or the rim diameter of the vessels in sub-group H-3. There is marked variation between the sub-groups themselves with regard to the perforated lugs of sub-group H-2 and the loop handles of sub-group H-3.

Group I consists of bowls with a carinated profile (fig. 2: 1 and 3; fig. 6: 2-10). The largest vessel (fig. 6: 8) has a rim diameter of about 25 centimetres; the smallest pot (fig. 6: 5) has one of 12 centimetres.²² However, in most cases, the diameter at the rim is in the range of 16 to 22 centimetres, while the height of a vessel is between 6 and 10 centimetres. The wall thickness is commonly in the range of 5 to 8 millimetres. A fine to medium clay paste is usually used in making the vessels in this group. There is one case (fig. 2: 1) where a coarse to medium clay paste with large inclusions is observed. Here the exterior surface has not been carefully finished and presents a mottled colour (black and reddish-brown); the interior surface is smoother (with some local areas of burnish) and has a dark brown colour. It is more common for both surfaces to be finished in a more refined way; this would include the use of a slip and burnishing. To cite several examples, both surfaces of the vessel shown in Figure 6: 2 have been slipped and have a black colour. In another case (fig. 6: 4), the exterior surface (possibly slipped) has been burnished and presents a mottle black-cream colour

and an interior surface with a glossy white appearance that has been both slipped and burnished. Both surfaces of the vessel shown in Figure 6: 5, which have a cream colour, have been slipped and burnished. Most of the vessels in this group tend to have darker colours, however. In terms of the treatment of the rim, the lip profile is often slightly everted; there may also be some thinning of the lip in certain cases (fig. 6: 3). A common feature of the vessels in this group is a horned handle that rises above the rim ("ansa cornuta" in Italian). But there is only one of the vessels reconstructed from the joining of sherds where such a handle is directly connected with a vessel body (fig. 2: 3). The numerous handle fragments and handle take-offs not attached to a vessel (see fig. 8 and 9) will be examined in a separate section. As we shall see below, most of the decoration on the vessels in this group is associated with the horned handles. Otherwise, decoration, as seen among the vessels under study, is limited either to a series of fine channels on the rim (sometimes in groups; fig. 6: 2-4) or else to small bosses applied at the carination line itself (fig. 6: 6-7). It is possible to make a sub-division among the vessels in group I along the following lines. The first sub-group (I-1) would contain vessels that are both shallower and more refined. It will be noted that all four of the vessels in this sub-group have channeling on their rims (fig. 6: 2-4) and that the carination itself presents horizontal ribbing in three cases (fig. 6: 2-3). Two of the vessels have simple handles (with a horizontal perforation) at the carination (fig. 6: 2 and 4). The second sub-group (I-2) contains vessels like the one shown in Figure 2: 3; the vessels are usually somewhat larger, deeper and less refined than those in the first sub-group. There are seven vessels in all that belong to the second sub-group.

The third sub-group (I-3) has only one vessel (fig. 6: 10). Its distinctive features are a large rim diameter, the straight-sided character of its carination (almost a shoulder), and the solid lug at the carination. With regard to the function or functions of the vessels in group I, it is again possible to think that they were used for a range of different purposes (one might expect their use to have more to do with the consumption of food and drink than with its storage or cooking). A common name for the group would be carinated bowls (or "vasi carinati" in Italian). And again, as the descriptions above indicate, there is a certain degree of variation among

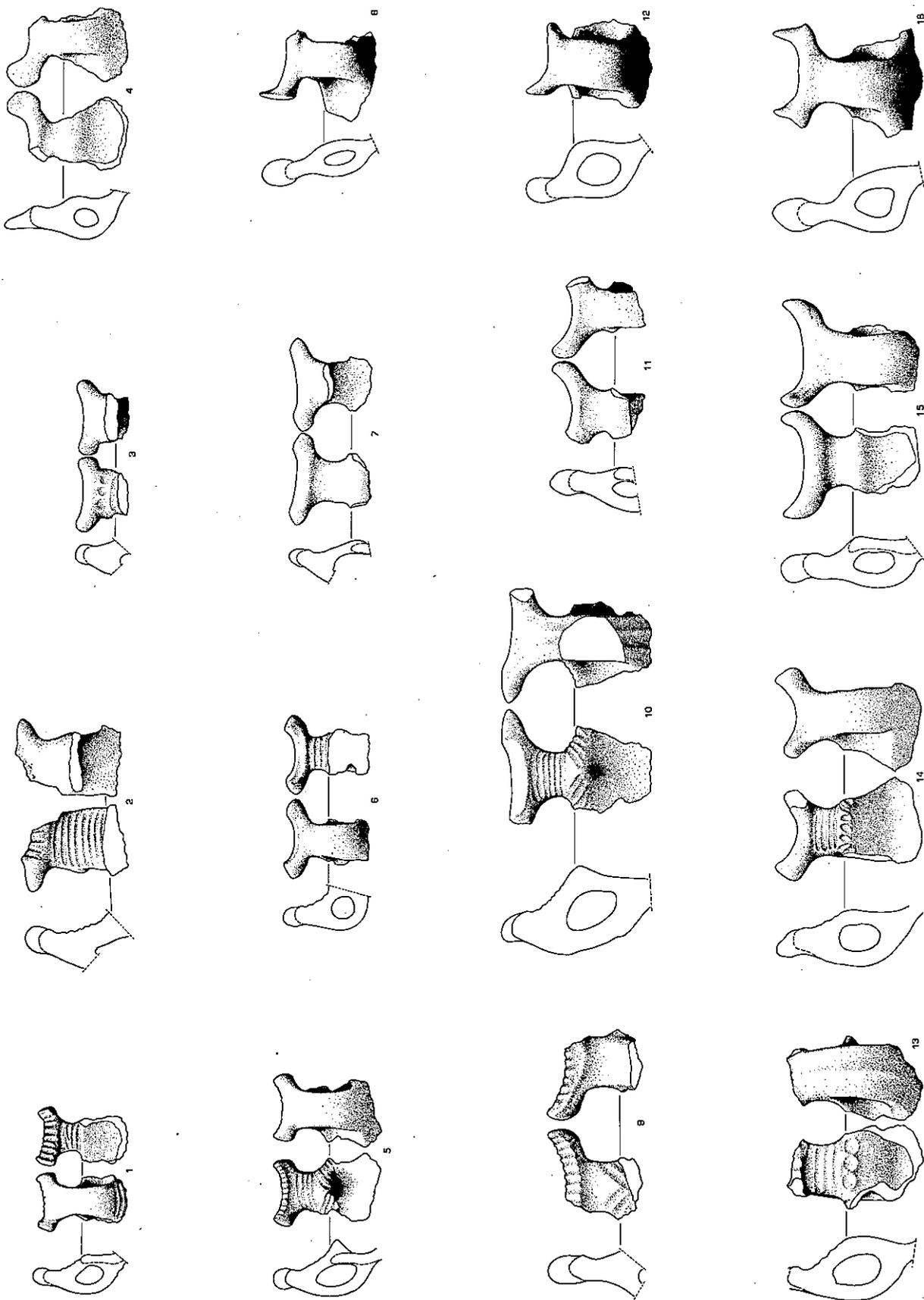


Fig. 8. - Fragments of horned handles. With the exception of nos. 1, 2, 4, 5, 6, 9, 12, 13 and 15, all of the fragments are from the dump.

even the vessels in the respective sub-groups; the variability between the vessels is all the more pronounced when we consider group I as a whole.

Group J is made up of small, fine ware vessels with open shapes (fig. 7: 1-6). There are only two out of the twenty-two vessels in this group which have a carinated profile.²³ The rim diameter of a vessel falls in the range of 9 to 14 centimetres; the height of a vessel varies between 3 and 5 centimetres. The wall thickness ranges for the most part between 4 and 6 millimetres. The vessels (with the possible exception of the four vessels in sub-group I-1) are notably smaller and finer than those belonging to groups A-I. The clay paste used in making the vessels is a fine to medium-fine one. It is common for both the exterior and interior surfaces to have a fine, smooth finish and a black colour. Some of the vessels have been either slipped or burnished. In general, the surface of a given vessel in this group tends to have a more uniform appearance than those in the other groups. The rim is normally well finished (often slightly thinned) as well. There is only one case (fig. 7: 3) where the rim is decorated with fine channeling. In several cases (fig. 7: 1-2), the base of a vessel is observed to be dented. Handles do not appear to be a common feature of the vessels in group J; when they are present, they may take the form of a loop that rises above the rim (fig. 7: 5). Nor is decoration all that common on the vessels that come from the deposit under study. As mentioned above, one vessel (fig. 7: 3) has channeling on its rim. A second vessel (fig. 7: 1) has groups of channels radiating out from the central dent on its interior face. A third vessel (fig. 7: 6) has four sets of channels again running out from a central dent but this time on its exterior face (the fragment illustrated here may represent part of a lid). Less than 20 per cent of the vessels in this group at Monte Leoni present any kind of decoration. In terms of their uses, it is likely that the vessels served for drinking liquids or the consumption of food (and possibly in some cases as lids). A common name for the vessels in the group would be cups (or "tazze" in Italian). With regard to variability within the group, the vessels appear to be more homogeneous than is the case in the other groups. At the same time, the vessels in group J are not highly standardized; they show some variation in terms of such things as rim diameter, the presence of handles and the presence of channeled decoration.

Group K, the last one to be considered, con-

sists of miniature vessels which have a wide variety of shapes (fig. 7: 7-13). It is worth commenting that the vessels in this group sometimes imitate on a small scale those in the preceding groups. For example, the miniature vessel shown in Figure 7: 8 mirrors the one shown in Figure 6: 3 (in group I), while that shown in Figure 7: 13 is a scaled down version of Figure 3: 6 (in group B). All of the vessels in group K have a rim diameter of 11 centimetres or less. The wall of a vessel, however, tends to be comparatively thick (often reaching 8-10 millimetres) for vessels of such small size. This is probably to be explained by the fact that most of the vessels are made by means of a simple pinch-pot technique.²⁴ The clay paste used for producing the vessels is a fine to medium one. The surfaces of the vessels are not finished as carefully as those in group J. The colours are often mottled ones (ranging from light grey and orange to darker shades). In some cases (fig. 7:10), it can be observed that a vessel has been over-fired. The treatment of the rim varies considerably from one pot to the next; there are sometimes even local irregularities around the rim of a given vessel.

In several cases (e.g., fig. 7: 11 and 13), tiny handles have been placed on the miniature vessels. The vessels have also been decorated in a few cases: for example, an imitation of channeling on the rim (fig. 7: 9) or the application of an isolated boss (fig. 7: 12). In terms of their use, it is reasonable to think that the vessels were either toys or else the products of playing at the making of pottery; in any event, it is more likely that they had a symbolic function rather than a utilitarian one.²⁵ A common name for the group would be miniature vessels (or "vasi minuscoli" in Italian). There is a high degree of variation between the vessels in this group.

Having described each of the groups in some detail, it is of interest to look at the assemblage as a whole in quantitative terms. As indicated in Table 1, the total number of vessels in the study comes to 144. It is important to emphasize that this is an estimate of the minimum number of vessels present in the deposit. At the same time, even this number indicates that a considerable quantity of pottery was once used and discarded at the site. One of the questions that we may want to ask concerns which of the groups have the most pots within the assemblage and which the fewest. The relative frequency or percentage of the vessels in the respective groups is given in Table 2, where the miniature vessels in

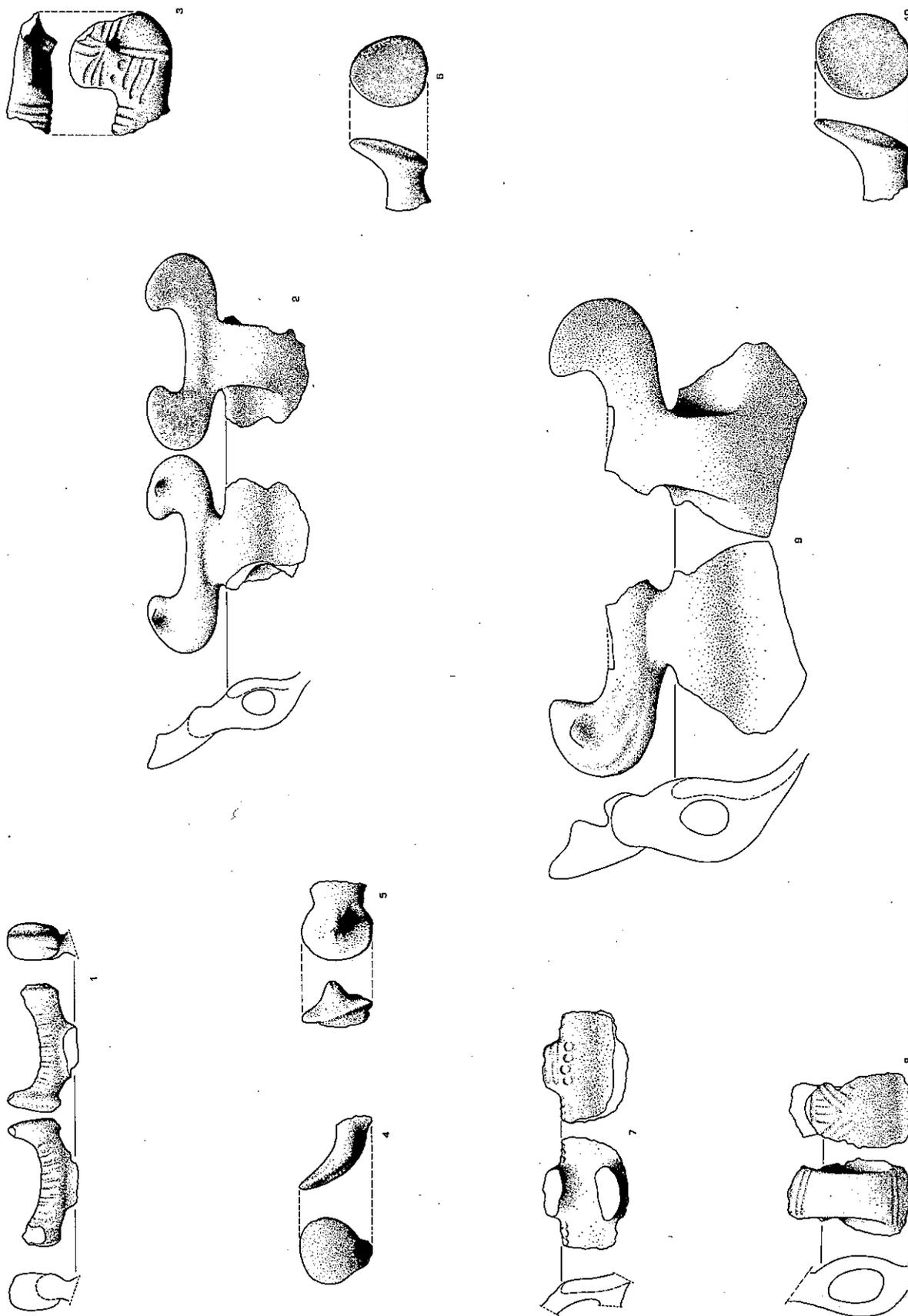


Fig. 9. - Fragments of horned handles. With the exception of nos. 4, 5, 8 and 10, all of the fragments are from the dump.

group K have been removed from the analysis (since they probably represent a special case in both technological and functional terms). It can be seen that group F (jars) constitutes about one-quarter of the assemblage and that group J (cups) and group B (beakers) also have high percentages. On the other hand, those with the lowest relative frequencies are respectively: group C (vats), group G (biconical bowls), group D (large bowls) and group A (pans), each of these groups constitutes 6 per cent or less of the assemblage as a whole. It is of major interest to note that when the coarse ware vessels are taken together, groups A-F, they form a full three-fifths (59.7 per cent) of all the vessels.²⁶ If we make a break down of the coarse ware vessels in terms of those probably used primarily in cooking, groups A and B (that is, pans and beakers), and those employed in storage and food processing (other than cooking), groups C through F (that is, vats, large bowls, dolia and jars), it can be seen that the former comprises one-fifth (21.0 per cent) of the assemblage and the latter almost two-fifths (38.7 per cent). Among the finer ware vessels in groups G through J, those that are more refined (group J and sub-group I-1, respectively cups and the better made carinated bowls) constitute one-fifth (21.0 per cent) of the assemblage, while the remaining one-fifth is made up of the moderately fine vessels in groups G and H (biconical bowls and bowls) and sub-groups I-2 and I-3 (carinated bowls). Thus, as seen in terms of the pots discarded in the deposit, we begin to gain a much better sense of the relative abundance and importance of the different kinds of vessels that were once used by a household at Monte Leoni.²⁷ In particular, attention is now drawn to a subject by and large neglected in previous studies of Terremare pottery -- the comparative wealth of coarse ware vessels. In turn, this perspective throws new light on the subsistence economies of the households at Monte Leoni (one that goes beyond the study of seeds and faunal remains). What the abundance of the vessels in groups A-F documents is that there was a well developed capacity for food storage; it also suggests some capability for the processing and transformation of plant and animal products. In other words, once food had been produced in the field, its actual consumption could be carried out or managed in more effective ways as a consequence of the ceramic assemblage at hand.

At this point, it may be appropriate to make a few

brief comments about the production and technology of the pottery. It is reasonable to infer that the majority of the coarse ware vessels, which were made using a coil technique, were produced at Monte Leoni or in the immediate vicinity of the site. The frequent recovery of wasters (sherds deriving from mis-fired pots) from the dump deposit offers direct evidence that vessels belonging to groups A-F were made and fired at the site.²⁸ In the case of the fine ware vessels (especially those in sub-group I-1 and group J), it is more difficult to say whether the vessels were produced at Monte Leoni or whether they were made elsewhere and reached the site by means of exchange or trade. What is needed are detailed mineralogical studies on the fabrics of the fine ware vessels. Until such studies are conducted, the question of which vessels in groups G-J were locally made and which were imported will have to remain an open one. It is perhaps worth adding that grog is regularly used as a filler in the coarse ware pots. In the case of the larger pots such as those in groups C-F, a considerable amount of grog would have been required for a given vessel. The implication is that discarded sherds were recycled as grog in new pots; there is the further implication that the sample of ceramic material that is recovered during the course of excavation at the site represents only part of all of the pottery that was originally discarded there. In short, this gives us further reason for thinking that the counts listed in Table 1 are those for a minimum number of vessels (that is, with reference to the vessels originally discarded or abandoned in those parts of the dump and house surface that have been excavated to date). Moreover, the practice of recycling pottery may account for one of the purposes of such dumps: that is, to provide a ready source or supply of potsherds that could be ground into grog, whenever new coarse ware pots had to be made at the site.

In the study of the pottery from bronze age sites on the Po Plain, it is more common for emphasis to be placed largely on the fine ware vessels. This is often done with the aspiration of constructing a typology, based on stylistic considerations, so that the chronological sequence of the sites in a given area can be established. While today we know, in methodological terms, that such sequences have to be stratigraphically established, and not simply asserted from *a priori* assumptions of what should have come first in the matter of style, the shortage

of well established stratigraphic contexts from excavations done before the 1970s has made it difficult to put such an approach into practice for Terremare pottery until quite recently. My intention in this article, as mentioned earlier, is not to attempt to construct such a typology for chronological purposes but rather to try to document what is found in a given stratigraphic context at Monte Leoni. Hopefully, others can make use of this information in their own typological and chronological endeavors. But as we shall see below, the problem may be much more complex than it is often envisioned: the matter of style may be related not just to the passage of time but to other factors as well. It is perhaps useful to begin by recalling that very few of the 144 vessels in the present study have elaborate decorative motifs. As we have just seen, in the case of the coarse ware vessels (groups A-F), the decorations are limited to applied cordons and bosses and the decorative motifs are uncomplicated ones for the most part. Even in the case of the fine ware vessels (groups G-J), the body of a vessel is seldom decorated. For example, only seven of the vessels in group J and sub-group I-I have decorations. And when the body, rim or base of such vessels are decorated, it usually takes the form of rather simple channeling. In short, notwithstanding the archaeologist's wish to the contrary, the vast majority of the pottery does not offer all that much potential for the stylistic study of decorative motifs. The horned handles that occur on the vessels in groups H and I offer one possible exception to this situation. Altogether a total of 36 fragments of horns or terminals were recovered from the dump and house surface.²⁹ Unfortunately, the handle (or the part of it recovered) has broken off from the vessel in most cases and it is not possible to join the handle fragment with the body of a vessel. Twenty-three of the fragments with either horns or terminals are illustrated in Figures 8 and 9.

It is worth making several brief comments on the technology of the horned handles at this point. Normally, the handle includes a loop or strap (just below the rim), a vertical bar (rising above the rim) and terminals that are modeled on the top or sides of the bar. The handle complex and the body of the vessel are usually fashioned separately and then joined together. To anchor the handle complex to the body, a rivet near the rim (one from the handle complex through the rim) may be employed; this may result in a slight bulge on the interior of the rim (fig.

8: 5 and 8; note that it has been subsequently decorated in both of these two cases). Once the handle is secured, channeling is executed, if a decoration is to be applied. The surface of the vessel and the handle complex (now joined to it) is then covered with slip.³⁰ The next step is for the pot to be burnished. Finally, after drying, the vessel is fired. As seen in Figures 8 and 9, the horns or terminals can be modeled in a variety of different shapes. They range from small, simply rounded forms (fig. 8: 3) to much larger and more elaborately shaped terminals (fig. 9: 9). There are even cases where the two sides of the terminal are not symmetrical (fig. 8: 12). In fact, in terms of their shapes and sizes, all of the terminals in the present study look slightly different from one another. In the case of any one basic shape, no more than three or four terminals are even approximately the same.

Some kind of channeling has been applied to fifteen of the handles or less than half of the ones in this study.³¹ Again, a fair degree of variation can be observed in the decoration of a handle. Channeling is most commonly applied to the top of the bar (nine cases) and the inner face of the bar (eight cases). There are four cases (fig. 8: 5, 9 and 10; fig. 9: 8) where a v-shaped pattern is seen on the interior face of the rim. In addition, there are three cases (fig. 8: 3 and 13; fig. 9: 7) where a series of several dots is applied to either the interior of the rim or the inner face of the bar. The impressions on the inside of the rim in another case (fig. 8: 14) may be related to the dot motif. There is also one case (fig. 9: 8) where channeling is applied to the outer face of a handle.

The most complex motif is one on a terminal (fig. 9: 3; Plate 1: 1), where channels run out in four directions from a raised central point. This motif resembles in some respects the decorations seen on the bodies of three vessels (fig. 7: 1 and 6, Plate 1: 2), which all involve lines radiating at right angles from a central point. It is perhaps also worth adding here that raised central dots can be observed in the case of three other terminals shown in Figure 9. All in all, what is striking about the set of horned handles taken as a whole is the degree of variation both in the shapes of the horns or terminals and in the decorations applied to the handles. Given the stratigraphic context, it is likely that all of this material (and especially that in the dump) was discarded, as mentioned earlier, over a relatively

short period of time (probably less than fifty years). The stylistic variability observed within the set of horned handles suggests that factors other than chronology may be at work here. For example, the horned handles may have served as markers in terms of the social order of those living at the settlement. Symbolically, a given terminal shape or decorative motif may have stood for such things as the age or the sex or the personal identity or the status or the group affiliation of the individual who used the vessel. The testing of this idea (and it needs to be stressed that this new alternative interpretation is simply a working hypothesis at this point) will call for the excavation of a series of other dumps at Monte Leoni as well as at other bronze age sites in the region. In the long run, when sufficient archaeological fieldwork and ceramic analysis have been carried out, it may be possible to sort out both the system of social marking associated with the horned handles and the framework of its chronological development.

In closing this article, it is important to remember that we are still at the beginning of the study of the pottery from Monte Leoni and other bronze age settlements in the region. An attempt is made here — the first such attempt for a so-called Terremare site — to document the full set of pottery found in a given archaeological deposit. The basic approach adopted is to study the material in terms of vessels and not potsherds (or parts of vessels). It must be acknowledged that this has proved to be an undertaking that is highly time consuming. Perhaps the

most striking thing to emerge from the study as a whole is the degree of variability that is observed among the vessels in each of the groups that has been identified. In other words, there is a low level of standardization within the pottery making tradition (or traditions) at Monte Leoni. There has also been the opportunity to learn that coarse ware vessels, those in groups A-F, comprise some three-fifths of the ceramic assemblage as a whole; this stands as a correction to the bias toward fine ware pottery in earlier studies. In short, the majority of the vessels discarded in the deposit turn out to be locally made pans, beakers, vats, large bowls, dolia and jars that is, pots which served basically a utilitarian purpose and which present only a modest degree of stylistic elaboration. On the other hand, for the horned handles which seem to be the main focus of stylistic elaboration in the ceramic assemblage, the level of variation is such that the suggestion can be made that some kind of social marking may well have been one of the factors behind the variability. It will take new excavations and the systematic study of the pottery from a series of well established stratigraphic contexts (including studies that are concerned with ceramic technology and the exchange of vessels between sites) before answers to such questions can be obtained. But while much work still remains to be done, at least a start has now been made at the reformulation of the questions to be asked.

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¹ For a bibliography on the early work, A. PINI, "Note di storia della paleontologia Emiliana", in *Emilia Preromana* 6, 1970, pp. 201-233. M. DESITTERE, *Paletnologi e studi preistorici nell'Emilia Romagna dell'ottocento*, Reggio Emilia 1988.

² For a review article which gives the state of knowledge of the bronze age in Emilia in the mid 1970s, G. BERMOND MONTANARI, "L'eneolitico e il bronzo nell'Emilia e Romagna", in *Atti della XIX Riunione Scientifica*, Florence 1976, pp. 137-161.

³ G. SÄFLUND, *Le Terremare delle province di Modena, Reggio Emilia, Parma e Piacenza*, Lund 1939.

⁴ A. AMMERMAN, et al., "Rapporto sugli scavi a Monte Leoni: un insediamento dell'età del bronzo in Val Parma", in *Preistoria Alpina* 12, 1976, pp. 127-154; A. AMMERMAN, et al., "Report on the excavations at Monte Leoni, a bronze age settlement in the Parma Valley", in *Helinium* 18, 1978, pp. 126-164; M. BERNABÒ BREA, ed., *Archeologia a Poviglio; appunti per una storia del territorio*, Reggio Emilia 1987, pp. 1-50; A. CARDARELL, "Tabina di Magreta: la terramara e i resti di età etrusca (Campagne di scavo 1985-1986)", in *Modena dalle origini all'anno Mille. Studi di archeologia e storia*, Modena 1989, pp. 210-214. On the inadequacy of the chronological framework for the bronze age in Emilia prior to the re-

cent cycle of excavations, M. BERNARDÒ BREA, A. CARDARELLI and M. CREMASCHI, "Le terremare dell'area centro Padana", in *Preistoria e Protostoria nel bacino del Basso Po*, Ferrara 1987, 148-149.

⁵ A. MORONI, A. AMMERMAN, and P. MENOZZI, "Paleoecologia e ricerche archeologiche sugli ecosistemi umani in Val Parma", in *L'Ateneo Parmense. Acta Naturalia* 8 (suppl. 1), 1972, pp. 60-63, fig. 4. For a contour map of the site, AMMERMAN et al. 1976, *op. cit.*, fig. 1.

⁶ The fieldwork was done in the summers of 1973, 1974 and 1976. For a preliminary report on the stratigraphy of the site at the end of the first season, A. AMMERMAN and A. MORONI, "Report on the stratigraphic sequence at Monte Leoni, a bronze age site in Parma Valley", in *L'Ateneo Parmense. Acta Naturalia* 10 (no. 2), 1974, 211-228.

⁷ AMMERMAN et al. 1976, *op. cit.*, pp. 140-153.

⁸ In addition to the report on faunal remains by Menozzi in AMMERMAN et al. 1976, *op. cit.*, pp. 150-152; see S. BONARDI and G. SCARPA, "Ricerca paleoecologica a Monte Leoni in Val Parma: analisi del materiale osteologico", in *Preistoria Alpina* 18, 1982, pp. 209-215. In addition to the reports on seeds and charcoal remains respectively by Pals and Voorrips in AMMERMAN et al. 1976, *op. cit.*, pp. 145-150, see J.P. PALS and A. VOORRIPS, "Seeds, fruits and charcoals from two prehistoric sites in Northern Italy", in *Festschrift Maria Hopf. Sonderdruck aus Archaeo-Physika* 8, Cologne 1979, pp. 217-235.

⁹ For a detailed plan of the structure, AMMERMAN et al. 1976, *op. cit.*, fig. 5.

¹⁰ The two radiocarbon dates are: (GrN-7594) 1215 ± 25 b.c. and (GrN-7595) 1295 ± 55 b.c.; AMMERMAN et al. 1976, *op. cit.*, p. 153. See note 18 below where the dates are given in calibrated years B.C.

¹¹ On the ages of the bronzes from Monte Leoni, see the reports by Butler in AMMERMAN et al. 1976, *op. cit.*, pp. 133-135; AMMERMAN et al. 1978, *op. cit.*, pp. 141-144. For the pottery at the site, an attribution to the middle bronze age has been made, for example, by A. CARDARELLI, "L'età del bronzo: organizzazione del territorio, forme economiche, strutture sociali", in *Modena dalle Origini all'anno Mille. Studi di archeologia e storia*, Modena 1989, pp. 102-107.

¹² AMMERMAN et al. 1976, *op. cit.*, pp. 132-133, fig. 2. The Tm dump has a volume of approximately 12 cubic metres. Based on its shape, size and orientation, this dump may also represent the devolutionary use of an abandoned structure.

¹³ See Table 3, AMMERMAN et al. 1976, *op. cit.*, p. 133.

¹⁴ On the concept of the devolutionary use of an abandoned structure, N. DAVID, "The Fulani compound and

the archaeologist", in *World Archaeology* 3, 1971, pp. 111-131. For the faunal remains recovered from this dump, BONARDI and SCARPA, *op. cit.*, pp. 209-215. For the seeds, fruits and charcoal fragments recovered from it, PALS and VOORRIPS, *op. cit.*, pp. 220-234.

¹⁵ On the soils at Monte Leoni, see the report by Sevink in AMMERMAN et al. 1976, *op. cit.*, pp. 140-142. At the end of the field season in 1976, the excavated dump was completely filled with water after a heavy rainstorm.

¹⁶ Most of the material abandoned on the house surface and discarded in the dump probably dates to a time span of only about fifty years.

¹⁷ The determinations by the laboratory at Groningen are respectively: (GrN-9274) 2920 B.P., (GrN-9275) 3240 B.P., (GrN-9276) 3160 B.P. and (GrN-9277) 3185 B.P. The tables used for the calibration of the dates are those of G. W. PEARSON and M. STUIVER, "High-precision decadal calibration of the radiocarbon time scale, AD 1950-2500 BC", in *Radiocarbon* 28 (no. 2B), 1986, pp. 856-858. On the relationship between traditional chronological schemes and absolute dates in terms of dendrochronology, B. BECKER, et al., *Dendrochronologie in der Ur- und Frühgeschichte: die absolute Datierung von Pfahlbausiedlungen nördlich der Alpen im Jahrringkalender Mitteleuropas*, Basilea 1985.

¹⁸ See note 10; the two dates (central values), when calibrated (PEARSON and STUIVER, *op. cit.*, pp. 857-858), are respectively: (GrN-7594) 1433 B.C. and (GrN-7595) 1519 B.C.

¹⁹ Such an approach to classification is technically known as a polythetic one.

²⁰ It is important to remember that all such classificatory terms (in English or in Italian) in the case of prehistoric materials are *etic* and not *emic*. They are conventions which serve as convenient, shorthand forms of reference for discourse in prehistory. They are to be used with caution and not allowed to take on lives of their own.

²¹ BERNARDÒ BREA, *op. cit.*, fig. 15.

²² There are three other vessels in the assemblage that have carinated profiles. Two have rim diameters of 12 centimetres or less; both are very shallow and have thinner walls than the vessels in group I. Accordingly, they have been placed in group J. The third vessel (fig. 7: 10) is again small but has been made with a pinch-pot technique; it has thus been included with the vessels in group K.

²³ See note 22.

²⁴ The vessel is fashioned from a lump of clay, which is simply worked between the fingers of both hands. Most of the larger vessels appear to be made using a coil technique; some of the finer ware vessels may have been fashioned over a mould; S.E. VAN DER LEEUW, "Preliminary report on the ceramics of Monte Leoni, Italy", unpublished technical report, August 1980.

²⁵ For examples found at other Terremare sites in the region, SÄFLUND, op. cit., tav. 40. Elsewhere, such things as animal figurines and models of boats have been recovered as well as miniature vessels. Säflund himself uses the following caption for tav. 40: "Minuscoli vasi e figurine in terracotta."

²⁶ In his separate preliminary report on the pottery from the site, S. E. Van der Leeuw (see note 24) makes much the same distinction between coarse wares and fine wares. Among the 144 vessels in the present study, there are very few exceptions to this basic division: a small number of vessels with somewhat finer wares than the others in group B and one or two carinated bowls that are much more coarse than the other vessels in group I. It is worth commenting that it is much more difficult, in general, to reconstruct one of the larger vessels than one of the smaller and finer ones. Thus, in quantitative terms, there is a greater chance to underestimate the number of vessels in groups A-F than in groups G-J.

²⁷ For a recent article, with bibliography, that deals with the subject of the use-life of vessels and their rates of discard, M.J. SHOTT, "On tool-class use lives and the formation of archaeological assemblages", in *American Antiquity* 54, 1989, pp. 9-30. On the basis of ethnographic evidence (fig. 2), it is worth noting that those vessels with a larger rim diameter tend to have a

longer use life. If such a relationship once held at Monte Leoni, it would imply that the proportion of the vessels in groups A-F actually in use at any one time would have been even higher than the proportion as seen in terms of discarded pots.

²⁸ The problem of successfully firing the larger vessels may have been a notable one.

²⁹ A total of 21 were found in the dump and 15 on the house surface. It will be noted that on the basis of the fragments of horned handles recovered, there are probably more vessels in groups I and H, represented in the deposit, than are indicated in Table 1. Again, it is worth emphasizing that the counts cited in Table 1 are those for a minimum number of vessels (based on the reconstruction of vessels).

³⁰ The slip appears to have been applied by some sort of cloth or brush; note that it is sometimes observed not to be applied to the inside of a handle, although the rest of the handle and body is covered with slip.

³¹ Two small fragments of terminals with channeling on the top of the bar are not illustrated in Figures 8 and 9. Three handle fragments where the horns or terminals are broken off (fig. 8: 13; fig. 9: 7-8) are included here among the 15 handles decorated with channeling.



Both of the fragments illustrated here are from the dump. Scale 1:Plate 1