

LA MONTARANA: A LATE BRONZE AGE SETTLEMENT BY TARQUINIA (VITERBO, ITALY)

Carlo Persiani¹

WITH APPENDIX ON FAUNAL REMAINS

Francesca Alhaique²

This work is dedicated to Eugenio Cerilli, inflexible scholar and affectionate companion in a lifelong friendship

PAROLE CHIAVE

Età del Bronzo Recente e Finale; Montarana; ricognizione; dati di superficie; forme e cronologia della ceramica.

KEYWORDS

Late Bronze Age; Montarana; survey; surface data; pottery shapes and chronology.

RIASSUNTO

Una serie di ricognizioni condotte tra il 1970 e il 1987 da volontari del Gruppo Archeologico Romano ha raccolto una significativa quantità di frammenti ceramici sull'altura di Montarana, posta sulle prime propaggini collinari di fronte alla città di Tarquinia. In questo contributo si presentano circa 200 frammenti significativi dal migliaio di quelli raccolti, con il loro inquadramento tipologico e cronologico. La maggior parte appartiene al Bronzo Recente subappenninico e al Bronzo Finale protovillanoviano. Compaiono anche alcuni frammenti che sono meglio inquadrabili in fasi più antiche dell'età del Bronzo. La mancanza di frammenti riferibili alle ultime fasi del Bronzo Finale suggerisce che l'insediamento di Montarana abbia precocemente contribuito all'emergere del vicino sito della Civita di Tarquinia come centro dominante del territorio già prima dell'inizio dell'età del Ferro.

SUMMARY

A series of surveys carried out between 1970 and 1987 by volunteers of the Gruppo Archeologico Romano collected a significant quantity of pottery sherds on the Montarana hill, located on the hilly slopes opposite to the city of Tarquinia. This contribution presents around 200 significant fragments from the more than the 1000 of those collected, with their typological and chronological classification. Most of them from the more than one thousand collected belong to the Subapennine Late Bronze Age and the Protovillanovan Final Bronze Age. Some sherds also appear which can be better dated to older phases of the Bronze Age. The lack of fragments referable to the final phase of the Final Bronze Age suggests that the settlement of Montarana early contributed to the emergence of the nearby site of Civita di Tarquinia as the dominant center of the territory even before the beginning of the Iron Age.

FOREWORD

Aim of this paper is to present a wide sample of the archaeological materials collected in several surveys by the volunteers of Gruppo Archeologico Romano and to discuss the chronology of the Bronze Age occupation of la Montarana. Further work is on the way for an assessment of the statistical composition of the sample (PERSIANI in press), the analysis and provenance of raw materials used, the ways of production and use of pottery belonging to one of the largest surface collections of Late Bronze Age Southern Etruria.

THE ENVIRONMENT

The hill known locally as La Montarana (briefly: Montarana) rises face-to-face with the medieval Corneto-Tarquinia town, as part of the first range of heights bordering the southern *Maremma* maritime plains (Figs. 1-3). The local geological setting (Fig. 4) is dominated by mostly sandy deposits of Pliocene and Pleistocene age. The Montarana hilltop belongs to the lower Pliocene "Unità di Poggio Martino" formation, comprising gravels and conglomerates in sandy matrix, red sands and micro-conglomerates with calcareous and quartz elements formed in marine littoral environment³.

* Corrected on 14/01/2025, see the Corrigendum: <https://doi.org/10.6092/issn.1974-7985/21075>.

¹ Società Cooperativa ARX – Roma; carlo.persiani@gmail.com.

² Servizio di Bioarcheologia – Museo delle Civiltà, Roma; francesca.alhaique@cultura.gov.it.

³ Carta Geologica d'Italia Foglio 354 Tarquinia; https://www.isprambiente.gov.it/Media/carg/354_TARQUINIA/Foglio.html.

Environmental studies support a reconstruction of a nearly coastal lowland, formerly occupied by marshes backing dunes parallel to the shoreline (MANDOLESI, PELFER 2002, pp. 195-196; PELFER 2002). The littoral environment could have provided the local dwellers a range of resources supporting the farm economy, as documented in similar environments of Ostia littoral and *Pianura Pontina* where several prehistoric settlements show as marshy lands, far from being deserted, were exploited and settled all along the prehistoric Holocene times (MANFREDINI 2002; ALESSANDRI 2009, pp. 16-49 with references to previous researches).



Fig. 1. *Montarana position in Central Italy and orography of the territory. Reference: Geoportale Cartografico Nazionale. Collocazione della Montarana in Italia Centrale e orografia del territorio. Dal Geoportale Cartografico Nazionale.*



Fig. 2. *Aerial view of Montarana (red dot) from inland to sea (Screenshot from Google Earth). Veduta aerea della Montarana (punto rosso) dall'entroterra verso il mare (Screenshot da Google Earth).*



A



B

Fig. 3. *General view of Montarana southern slopes; A towards East; B towards Northwest. Photos by the Author.*
Vedute panoramiche del versante meridionale della Montarana; A verso est; B verso nordovest. Foto dell'Autore.

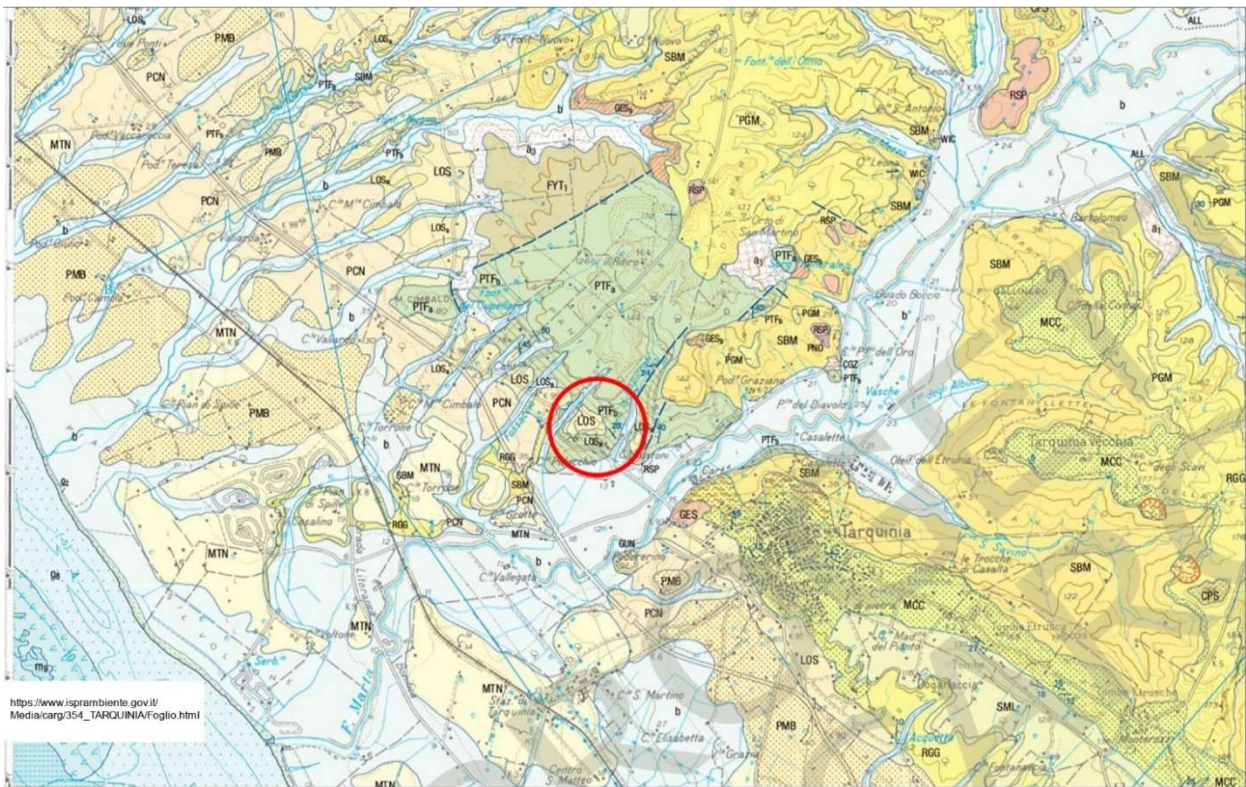


Fig. 4. Geological setting of Tarquinia hinterland at Montarana (red circle). LOS - Middle Pleistocene "Barca di Parma system, Lestra dell'Ospedale unit": silt, sandy silt and sand and volcanic elements of coastal and continental environments; sand and stratified Plinian eruption elements, rich in marine fauna. The succession of marine, brackish and continental deposits emerges up to approximately 70 meters above sea level, with a maximum thickness of approximately 15 m. PGM - Middle-Upper Pliocene "Poggio Martino unit": conglomerates and gravels in a sandy matrix, red sands and microconglomerates of calcareous and marly and quartzitic calcareous elements of even decimetric dimensions, morphometrically evolved. In transgressive strips on Middle Pliocene deposits. Coastal marine environment. Maximum power of approximately 30 meters. SBM - Early Pliocene "San Savino ditch unit": gray silty and sandy clays and loams with intercalations of conglomerates with heterometric limestone-marly elements evolved in an abundant sandy matrix, belonging to the limestone-marly succession of Monte Romano; the sedimentation environment is marine around the coast; estimated maximum thickness less than 100 m. PTF - Cretaceous-Eocene "Pietraforte": marls, beige and gray clayey, flaky or with soap-like fractures, dark and ochraceous clays; greenish or reddish shales, they are thin intercalations of greenish and blackish limestones; close to the contact with the sandstones, decimeter-thick arenaceous layers. Reference: Carta Geologica d'Italia Foglio 354 Tarquinia, https://www.isprambiente.gov.it/Media/carg/354_TARQUINIA/Foglio.html.

Substrato geologico del territorio della Montarana (nel cerchio rosso). LOS - Pleistocene Medio "Sistema Barca di Parma, unità Lestra dell'Ospedale": limi, limi sabbiosi e sabbie ed elementi vulcanici di ambienti costieri e continentali; sabbie ed elementi eruttivi pliniani stratificati, ricchi di fauna marina. La successione di depositi marini, salmastri e continentali affiora fino a circa 70 metri sul livello del mare, con uno spessore massimo di circa 15 m. PGM - "Unità di Poggio Martino" del Pliocene Medio-Superiore: conglomerati e ghiaie in matrice sabbiosa, sabbie rosse e microconglomerati di elementi calcarei e calcarei marnosi e quarziticci di dimensioni anche decimetriche, morfometricamente evoluti. In fasce trasgressive su depositi del Pliocene medio. Ambiente marino costiero. Potenza massima di circa 30 metri. SBM - "Unità del fosso di San Savino" del Pliocene Inferiore: argille sabbiose e siltitiche e grigie con intercalazioni di conglomerati ad elementi calcareo-marnosi eterometrici evoluti in un'abbondante matrice sabbiosa, appartenenti alla successione calcareo-marnosa di Monte Romano; l'ambiente di sedimentazione è marino attorno alla costa; spessore massimo stimato inferiore a 100 m. PTF - Cretaceo-Eocene "Pietraforte": marne, argillose beige e grigie, scagliose o con fratture saponose, argille scure e ocracee; scisti verdastri o rossastri, sono sottili intercalazioni di calcari verdastri e nerastri; in prossimità del contatto con le arenarie, strati arenacei spessi decine di centimetri. Riferimenti: Carta Geologica d'Italia Foglio 354 Tarquinia, https://www.isprambiente.gov.it/Media/carg/354_TARQUINIA/Foglio.html.

The Montarana hill has a roughly quadrangular plan, rather sharply limited along almost all its perimeter by steep slopes (about 30 degrees) that are climbed with difficulty without being real cliffs, apart for a "bridge" connecting it to the northward hill system (Figs. 5-6). Its top is now nearly flat, because of works which followed the post-WW II agricultural development of the *Maremma* that reclaimed widespread territories. The main source of fresh water lies in the perennial water course of the Marta River, about half a km downhill; one cannot deny, though, that now lost water springs existed in ancient times nearby. The available space on the hilltop is about 4 hectares (ca. 10 acres), a figure placing Montarana among the large-sized sites of Final Bronze Age (DI GENNARO 2000, fig. 5). As to its natural defensive potential - considered a relevant question in settlement analysis (DI GENNARO 1986 - 1988; PACCIARELLI 2000; SCHIAPPELLI 2008; BARBARO 2010) - evaluation is controversial: low according to Schiappelli (2008, p. 43), high to Barbaro (2010, fig. 5).

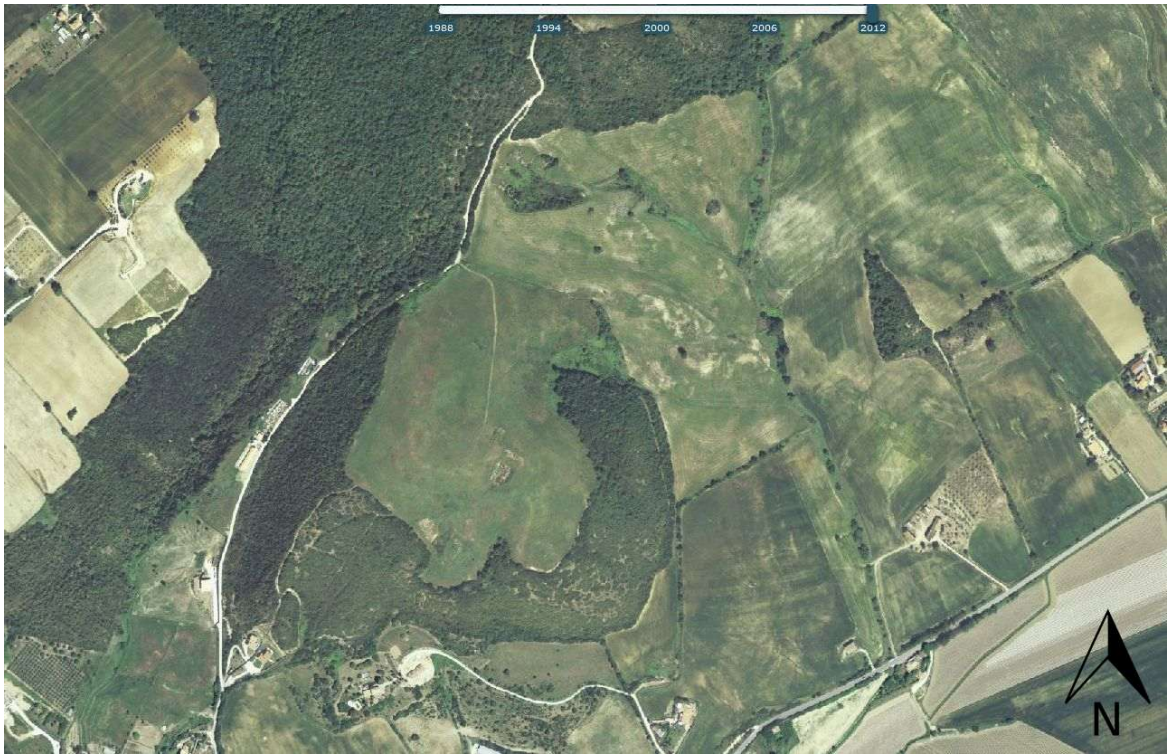


Fig. 5. Montarana. Zenithal photo. Reference: Geoportale Regione Lazio.
Foto zenitale. Fonte: Geoportale Regione Lazio.

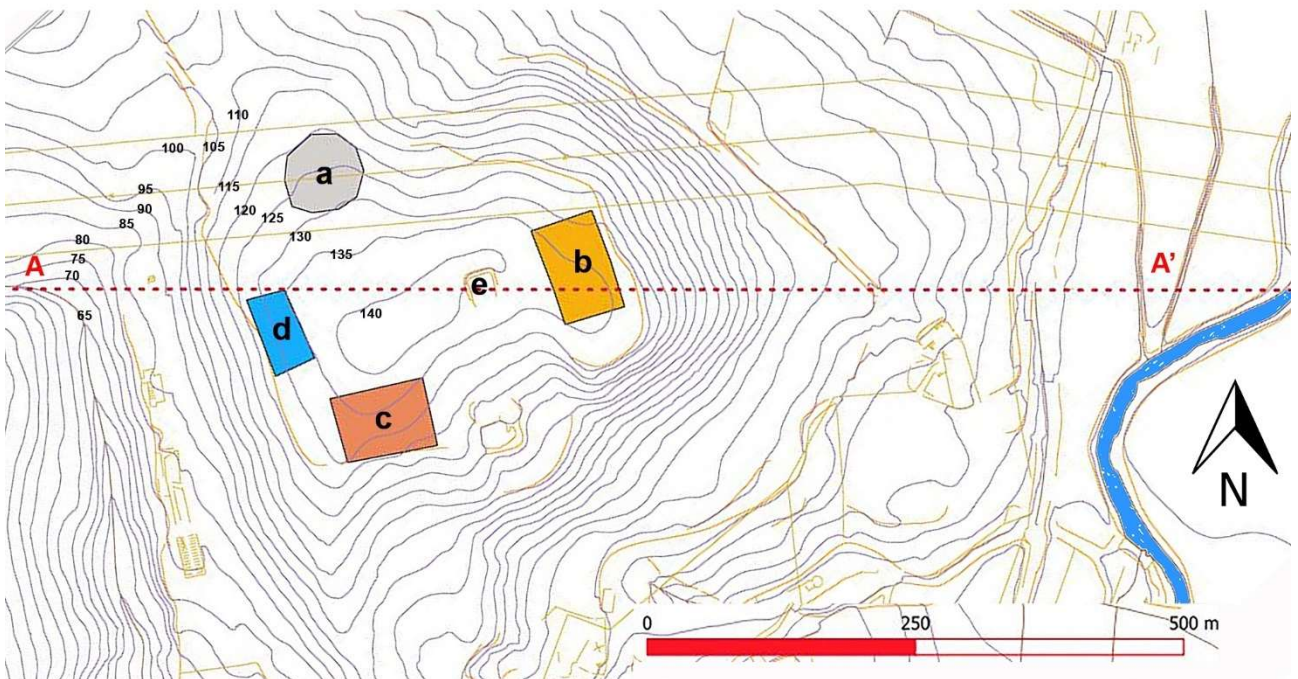
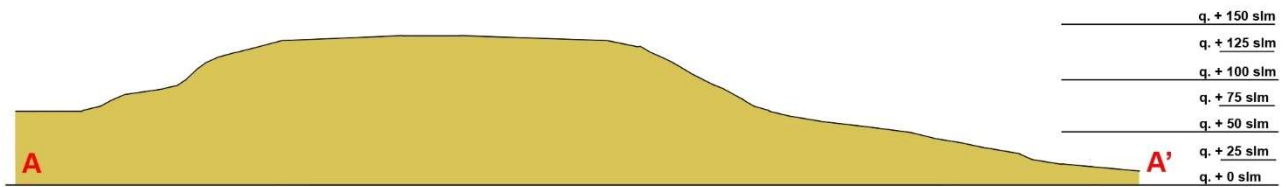


Fig. 6. Montarana. Site topography and East-West section. Shaded areas show the approximate limits of the finding areas: a: northern edge and upper slope, b: eastern slope, c: southern edge, d: western slope; e: unauthorized building foundations. Topografia del sito. Le aree ombreggiate mostrano i limiti approssimativi delle aree di ritrovamento. a: margine settentrionale e versante superiore, b: versante orientale, c: margine meridionale, d: versante occidentale; e: fondazioni edilizie abusive.

THE RESEARCH

Prehistoric-protolithic presences on and around Montarana were first noted in the years 1969-70 in surveys carried out by volunteers of the Gruppo Archeologico Romano⁴. Survey techniques then were not refined, and the data reported on survey sheets were usually limited to the general description of findings and a map of the finding spots. The research reports of the time on Montarana say that most sherds were found on the southern and northern ends of the hill summit, with a surface area of some hundred square meters. As reported, the area corresponding to the top of the hill mainly included most pottery defined as Subapennine type, while the area corresponding to the upper part of the south-west slope included most of the Protovillanovan finds (CONTI, PERSIANI 2004, p. 539).

In the following 1977-78 years the site was investigated by a class of the Università di Roma "La Sapienza" (TRUCCO 2007, p. 318; DAMIANI 2010, pp. 48-49; BARBARO 2010, p. 224). Two different teams of G.A.R. renewed the research in the years 1979-1987⁵; in these occasions findspots were recorded; the main concentrations were seen on the northern and southern ends of the hilltop, but a small group of significant sherds was picked up also on the eastern and western slopes. Few pottery was detected on the very top of the site (PENNACCHIONI, PERSIANI 1980, 1982). In the 1984 survey the team spotted lumps of compact ashy earth referable to damaged ancient floor level including animal bone splinters; one sample was collected, and its content is presented hereafter (CONTI, PERSIANI 2004, p. 539). In the years 1988-1996 A. Mandolesi made more inspections (BARBARO 2010, p. 224)⁶. Other uncontrolled researches were undertaken by individual amateurs and collectors, which rarely let information leak (VITAGLIANO 2021).

At the end of the 90ies the Soprintendenza Archeologica per l'Etruria Meridionale made at first core sampling and little after a short excavation on the southern slope top edge, to check the possible presence of archaeological strata, mainly to put a stop to unpermitted building activities⁷. The soundings gave a positive result, and pottery associated with the strata dated consistently to the Final Bronze Age (Protovillanovan style), so giving the Soprintendenza a sound reason to impose a stop to building activities.

In the writer's knowledge, the last significant survey was that carried out by the writer himself in the year 2010 as a tutor of an apprenticeship program involving students of the Università "La Sapienza", in cooperation with the chair of Prehistory – prof. Margherita Mussi. Not a single sherd was seen at that time⁸.

THE FINDINGS

The surveys carried out by G.A.R. yielded a harvest of 1443 sherds, comprising only pieces showing at least a minimum diagnostic feature, while unclassified body parts (probably thousands in the first campaigns) were left on the spot. The 1970-71 surveys collected 1101 sherds without differentiating the finding spot. 164 sherds were retrieved in 1980-84 surveys, and 177 in the year 1987; in both cases the finding areas were registered (Fig. 6).

⁴Late 1960s – early 1970s saw the spread of volunteer teams of G.A.R. in many areas of Southern Etruria and Latium. "The attention paid to the territory, which differentiated the G.A.R. from the associations that organized only conferences and guided tours, was the unwitting result of the ban on continuing the excavations issued to the G.A.R. itself on May 10, 1969, as a decision of the Soprintendenze. The ban transformed the association into a formidable group of prospectors, launched into a territory still unpopulated. Thanks to some out-of-the-ordinary characters, even in the protolithic field, they began to unite, in a voluntary context, the pleasure of finding with the interest in the classification of data and in the study of prehistoric population." (translated from: F. di Gennaro in *Nuova Archeologia*, anno IX n. 6, nov.-dec. 2013). That activity in many cases retrieved information on archaeological remains from sites bound to be banned from surveys for fencing, erosion or even complete destruction in the following years (M. Pennacchioni, same place). Ludovico Magrini, founder and first director of G.A.R., presented the results of the first survey campaigns to the experts in a 1971 meeting on Southern Etruria at the Swedish Institute of Archaeology in Rome. The leader of the survey team at Tarquinia was Piergiorgio Pierfederici; a special component of the team was Gaetano Bellucci who documented in a single photo the presence of a stone wall (*Rapporto sull'attività del Gruppo Archeologico Romano 1965-1995*, Tarquinia 1995; CONTI, PERSIANI 2004). It must be stressed that, after a pioneer activity carried out in the late XIX sec. by Italian archaeologists (GAMURRINI *et alii* 1972), systematic surveys in Etruria until that time had been only organized by foreign archaeological institutes.

⁵ One of these teams (1979-1984), directed by the writer together with Dr. Anna Maria Conti, recorded the main sherd concentration areas. In the year 1980 the team gave way to the documentation of Bronze Age pottery sherds collected in several sites in the Marta river valley by the GAR teams (CONTI 1986a, b).

⁶ Curiously, this activity is not directly cited in the Montarana form of Mandolesi's study on Tarquinia protohistory (MANDOLESI 1999, p. 158).

⁷ Core samplings met meaningful strata and soundings brought to light a stretch of wall and a fireplace in good stratigraphic position (CONTI, PERSIANI 2004; TRUCCO 2007).

⁸ The rate of information loss has been discussed by the present Author (PERSIANI in print).

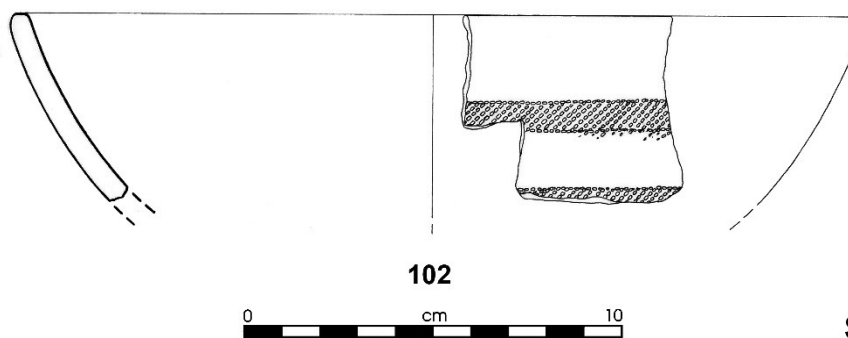


Fig. 7. Montarana. *Bell-beaker style bowl*.
Scodella di stile campaniforme.

Figures of the sherd count from the 4 finding areas are as follows; southern edge of the hilltop: 144, northern edge and upper slope: 84, eastern slope 25, western slope 12. It remains unchecked if this uneven distribution can be related to the original settlement topography or to different rates of erosion of the underlying archaeological strata.

Animal bones were recovered in every survey, together with shells, flint and stone (Fig. 35). Bones are discussed by Francesca Alhaique in Appendix 1. In 1984 a lump of compact, ashy earth was spotted and preserved as it was; after years the earthen matrix came apart, revealing a small cache of bones, 3 small pottery sherds, an elongated pebble and an object of undetermined material, not bone, probably stone, with beveled end (Fig. 35 E, F). In the same survey two flint flakes were found (Fig. 35 G).

THE POTTERY

FABRIC

4 main classes of ceramic fabric were recognized, based on eye recognition.

Coarse: very little homogeneous paste, grit temper with grains exceeding 5 mm large; vegetal inclusions are rare. Beyond grits of volcanic origin (mostly black augite crystals), in some cases quite small, rounded gravel of different colors was evident (Fig. 8: 5-8).

Medium: paste spanning from rather homogeneous to homogeneous, visible temper with grits up to 5 mm of large, the largest ones dispersed and not frequent (Fig. 9: 2-4).

Fine: quite homogeneous paste, temper not visible at the naked eye (Fig. 8: 1).

Stoves/Cooking stands form a category different from pottery: rather homogeneous paste, medium sized grits, typical bright red – reddish brown color of paste and surface (Fig. 10: 12, 14).

COLOR

Both core and surface colors span from light brown (Fig. 9: 8-10) to medium brown (Fig. 9: 1, 2, 6, 7) to dark brown (Fig. 9: 3) to black (Fig. 9: 5), greyish being not rare (Fig. 9: 4). Mottled surfaces are frequent (Fig. 9: 11-14), as are differences between inner and outer surfaces. Considering the extreme variability of color shades, no color chart was used, for most vases show wide shades and even strong color differences. Color definition was so restricted to: black; grey; dark, medium and light brown; reddish.

A special case in core color is the five-layers section that we named “wafer-like”. It is a feature of the fine pottery, consisting in a very dark core flanked by two light brown layers and surfaces from dark brown to black. It is not exclusive of bronze age pottery, but it appears in other periods and in other countries as well. “Wafer” section is due to the alternating reducing and oxidizing conditions of the kiln and is never seen in large pots, whose firing was carried out with a different technique.

SURFACE FINISHING

Surfaces span from quite rough, preserving clear traces of manufacturing, to smoothed and mirror-like polished. Sherds were thus divided in three very large categories, possibly gross, but easy to manage for a work carried out with the aid of volunteers and students, though well trained.

Rough: uneven surfaces, with clear sign of the inner coiling, of clay dragging, or finger and tool streaks (Fig. 10: 8-10).

Burnished: from relatively even to smoothed surfaces, sometimes showing regular patterns of the smoothing tool, dull appearance (Fig. 10: 5-7).

Polished: beyond being burnished, surfaces show the shine of polishing. Smaller, finer vessels with thin walls show both perfect burnishing and high polish (Fig. 10: 1-4).

Generally, rough paste and surface is associated with mottled color, fine fabric is associated with dark brown - black color of both paste and surface, and lustrous skin. Medium fabric, quantitatively dominant, appears with any color and surfaces whether rough, burnished or sometimes polished (PERSIANI in press).



Fig. 8. Montarana. *Selection of pottery fabric. Photos by the Author.*
Selezione di impasti della ceramica. Foto dell'Autore.

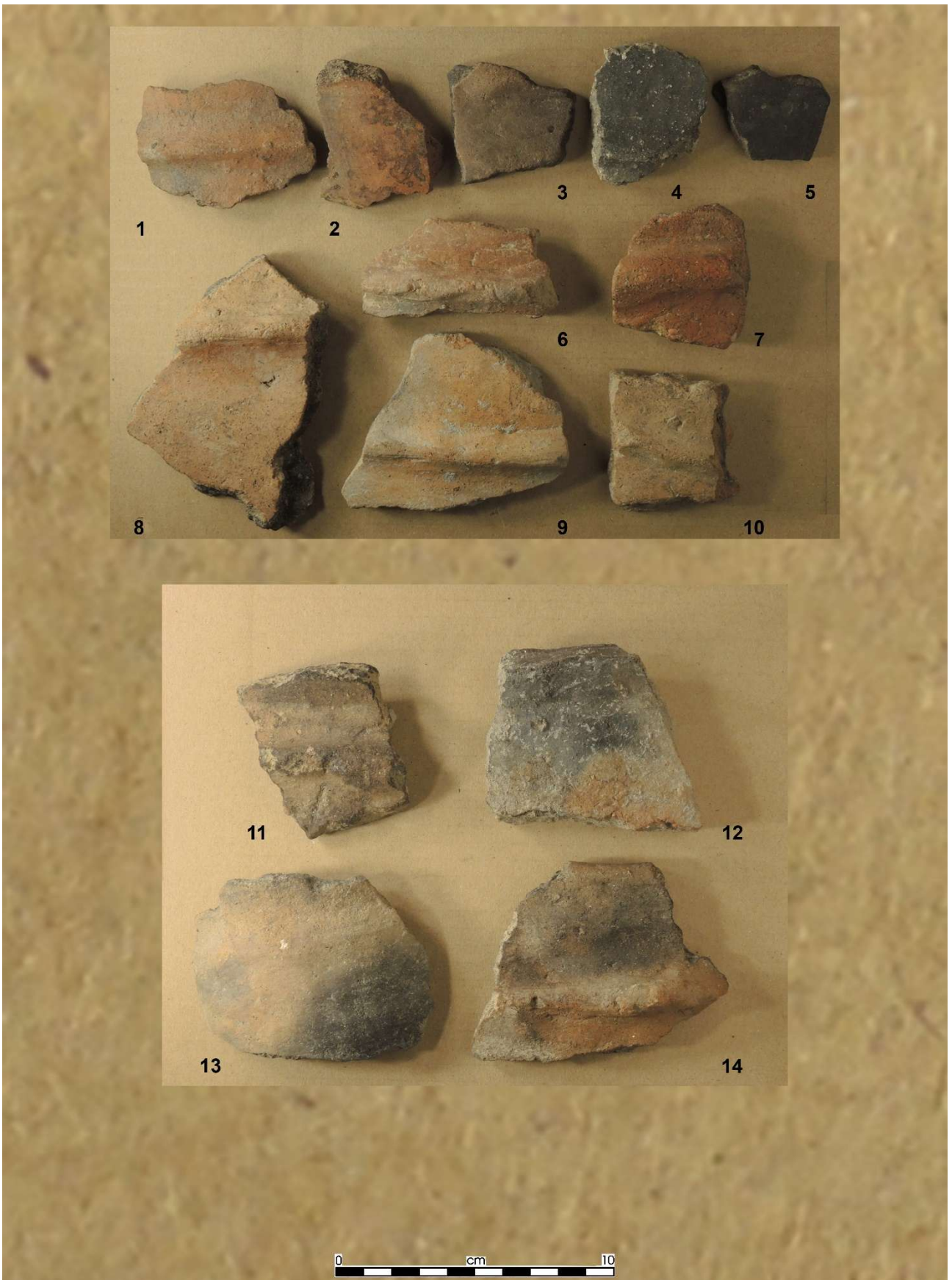


Fig. 9. Montarana. *Selection of pottery surface colors. Photos by the Author.*
Selezione di colori della ceramica. Foto dell'Autore.

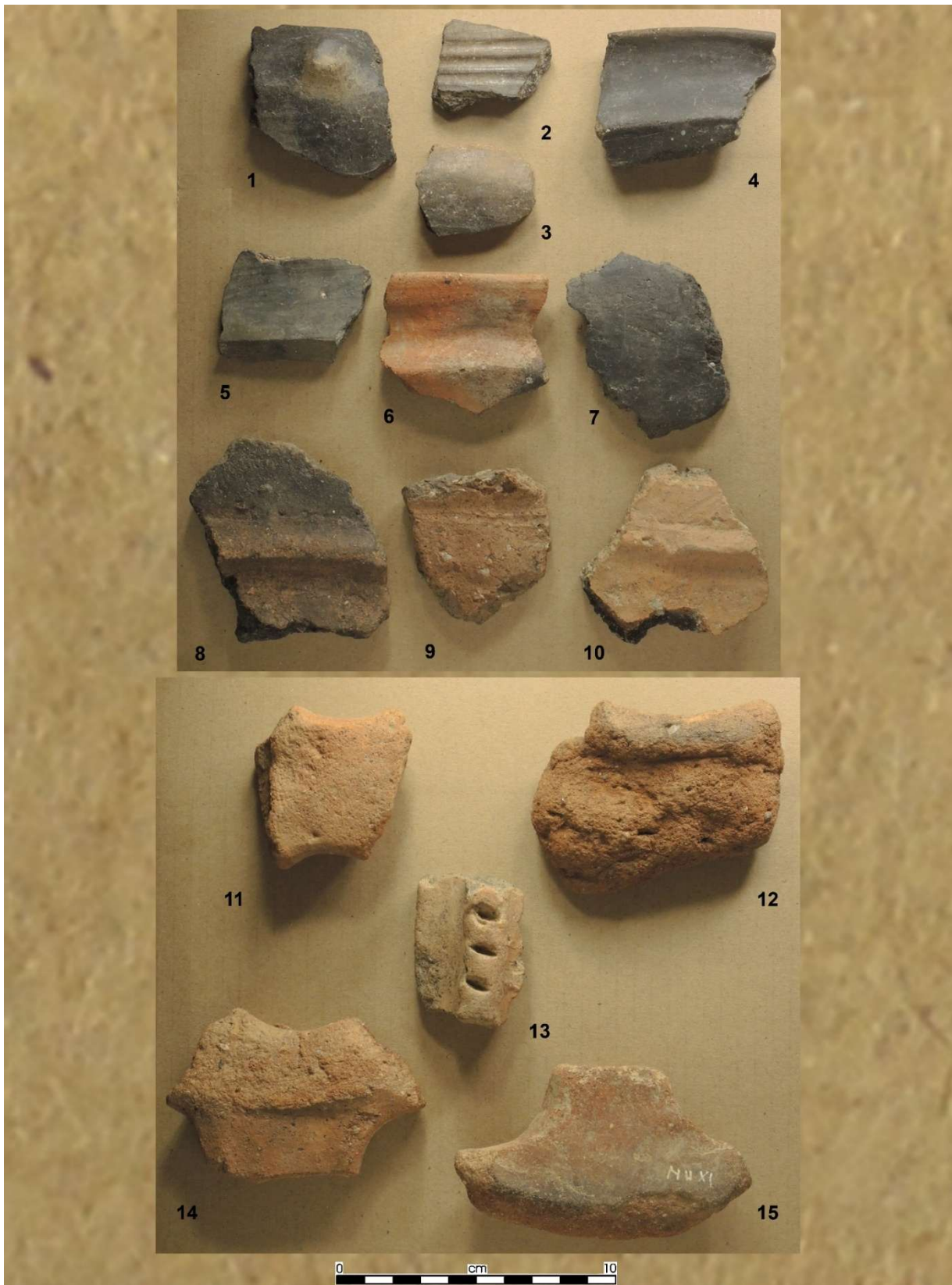


Fig. 10. Montarana. *Selection of pottery surface treatment (nn. 1-10) and stoves (nn. 11-15). Photos by the Author.*
 Selezione di esempi di trattamento superficiale della ceramica (nn. 1-10) e fornelli (nn. 11-15). Foto dell'Autore.

SHAPES

Due to the accuracy of the researchers who picked up all the significant sherds (PERSIANI in press), the Montarana pottery collection reflects most of the elements that form the Subapennine and Protovillanovan pottery set (Tab. 1), though incomplete for its character of surface assemblage. The following table includes the categories and subcategories

composing the Montarana assemblage related to one of the two main periods considered - or both - based on the existing typologies. Missing categories at Montarana are: pans, vase-shaped strainers, conical strainers. It is well beyond the limits of the present paper to deal with a re-exam of the vessel typology of Late Bronze Age (LBA). The existence of contemporary works by Damiani (2010) for the Recent Bronze Age (RBA) and by Barbaro (2010) for the Final Bronze Age (FBA) gives more than one clue to attach them the Montarana findings. These typologies are not comparable each other, as Barbaro's is a wide-mesh one, made with the aim to assess the chronological setting of FBA settlement system in Northern Latium, while Damiani's one presents an extremely analytical assessment of RBA shapes all over the Italian Peninsula. Both are, nevertheless, extremely useful as a typo-chronological lattice where to insert surface findings that lost their original associations. In the chapter discussing the site chronology, earlier phases of the Bronze Age will be considered, whose traces are recognizable in much smaller quantity at Montarana.

Categories	Main sub-categories	RBA (Subapennine)	FBA (Protovillanovan)
Bowls	Simple lip	X	X
	In-turned lip	X	
	In-turned thickened lip	X	
	Thickened outward lip	X	
Cups	Sharply in-turned lip		X
	Shallow carinated body	X	X
	Deep carinated body	X	X
	Rounded shallow body		X
Pyxis	Offset shoulder		X
	High shoulder		X
Biconical vases			X
Mugs	Half-ovoid body	X	X
	Rounded body	X	X
Basins	Low convex body	X	X
Small jars	Globular body		X
	Carinated shoulder	X	
Jars	Rounded body, simple lip	X	X
	Rounded body, everted lip	X	X
	Conical body	X	X
	Ovoid body	X	X
	Cylindrical body	X	X
Pots	Rounded body	X	X
	Cylindrical body	X	X
Buckets		X	
Inner-ledged jars		X	X
Lids	High conical body	X	X
	Low convex body	X	X
	Squat body	X	X
Stoves	Flat topped body	X	X
	High topped body		X
	Top-less body (stands)		X
	Top without stand		X

Tab. 1. Montarana. *Pottery categories of Recent (RBA) and Final Bronze Age (FBA).*
Categorie ceramiche dell'età del Bronzo Recente e Finale.

CATALOGUE

BOWLS WITH SIMPLE PROFILE (Figg. 11, 29)

The shape is present with a variety of profiles that span from quite shallow and flaring profile to rather deep body and in-turned lip without break. Two pieces have slightly angular shoulder, but not enough to be included in the carinated group.

Shallow body, no lip, thickened rim, handle on the rim: n. 470.

Shallow body, flaring lip: nn. 49, 635.

Shallow body, short vertical tapering lip: nn. 50, 199, 629, 633.

Hemispherical body, no lip: n. 1267.

Shallow body, slightly in-turned lip: nn. 632, 178; with pointed knob near the rim n. 52.

Shallow body, in-turned lip with incised decoration of multi-line zig-zag: n. 177.

Shallow body, sharply in-turned lip, angular shoulder; a slight knob on the shoulder: n. 899.

Shallow body, short vertical side, thickened rim: n. 124.

Deep body, sharply in-turned lip, angular shoulder, knob with dimple on the shoulder: n. 820.

Small size, slightly thickened rim: n. 366.

BOWLS WITH THICKENED RIM (Fig. 12)

Simple profile, body varies from very shallow to deep, rim from slightly to very thickened with marked profile.

Shallow body, thickened outward lip: nn. 139, 159, 160.

Deep body, thickened outward lip: n. 848.

Shallow body, thickened lip, inner groove: nn. 46, 47, 698, 690; with triangular lug on the rim: n. 85.

Deep body, inner and outer thickened lip: nn. 31, 164, 1271. Same shape with triangular lug on the rim: n.1270.

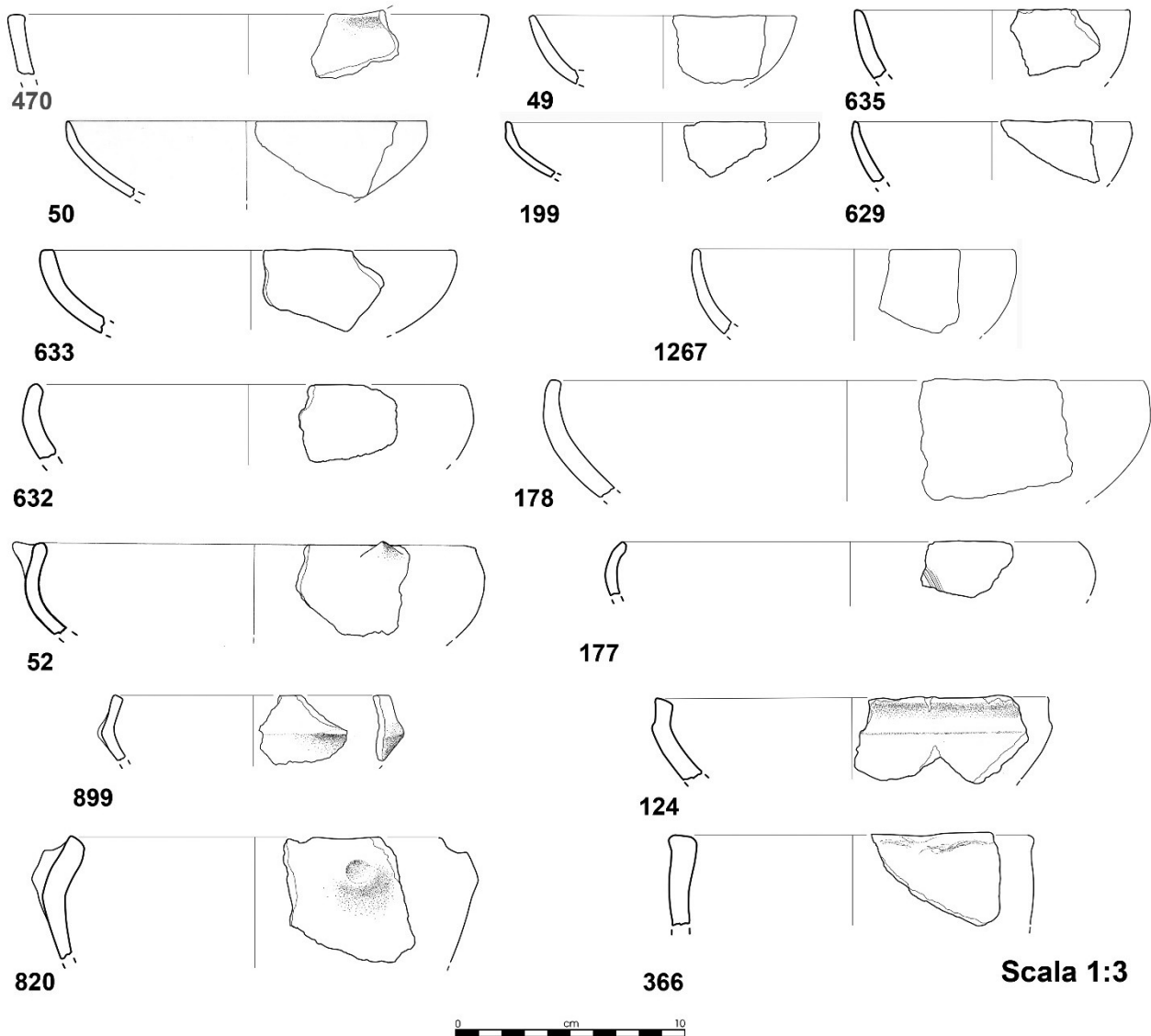


Fig. 11. Montarana. *Bowls with simple curved and with angular profile, simple rim.*
Scodelle a profilo semplice, arrotondato o angolato, orlo semplice.

CUPS WITH CARINATED BODY, FLARING SIDE (Figg. 13, 31)

Very shallow body, wide flaring side, flaring tapering lip: n. 48.

Flaring side, flaring tapering lip: nn. 43, 44, 1006, 1016.

Flaring side, flaring tapering lip, outset carination: n. 39.

Flaring side, abrupt flaring lip: nn. 109, 912, 1355.

Almost vertical side, flat rim: n. 107.

Vertical side, rounded rim: nn. 131, 902.

Vertical side, short flaring lip, tapering rim: n. 817.

Vertical side, flaring lip: nn. 54, 992.

Vertical side, sharply outward lip: n. 917.

CUPS WITH DEEP CARINATED BODY (Fig. 13)

Vertical side, short flaring lip: n. 1421.

Vertical side, sharply outward lip: n. 995.

CUPS WITH SHALLOW CARINATED BODY (Figg. 14, 31)

Slightly in-turned side, missing lip: n. 98; incised decoration: linear chessboard frame and hook shaped central motif above the carination.

Slightly in-turned side, flaring lip: nn. 40, 823, 1353, 1413.

Slightly in-turned side, rounded carination, sharply outward lip: nn. 989, 999, 1000.

In-turned side, flaring lip: nn. 42, 1404.

Slightly swollen in-turned side, sharply outward lip: n. 41.

CUPS WITH ROUNDED SHALLOW BODY (Figg. 15, 31)

Almost straight side, short flaring straight lip: n. 138.

Short rounded lip: nn. 73, 127; n. 73 decorated with 2-lines zig-zag motif on body.

Short flaring straight lip: nn. 61, 190, 1363; n. 61 decorated with comb-pattern wavy line on body.

CUPS WITH OTHER PROFILES (Fig. 15)

Cup with off-set shoulder: n. 816; decorated with "turban" motif on shoulder and 2-lines zig-zag motif on body.

Cup with squat body, concave neck, missing lip: n. 153.

Cup with deep body, almost carinated shoulder, short everted lip, handle on rim: n. 692.

Large cup with squat body, rounded shoulder, missing everted lip: n. 60; decorated with horizontal parallel lines and a row of impressed dots on the shoulder.

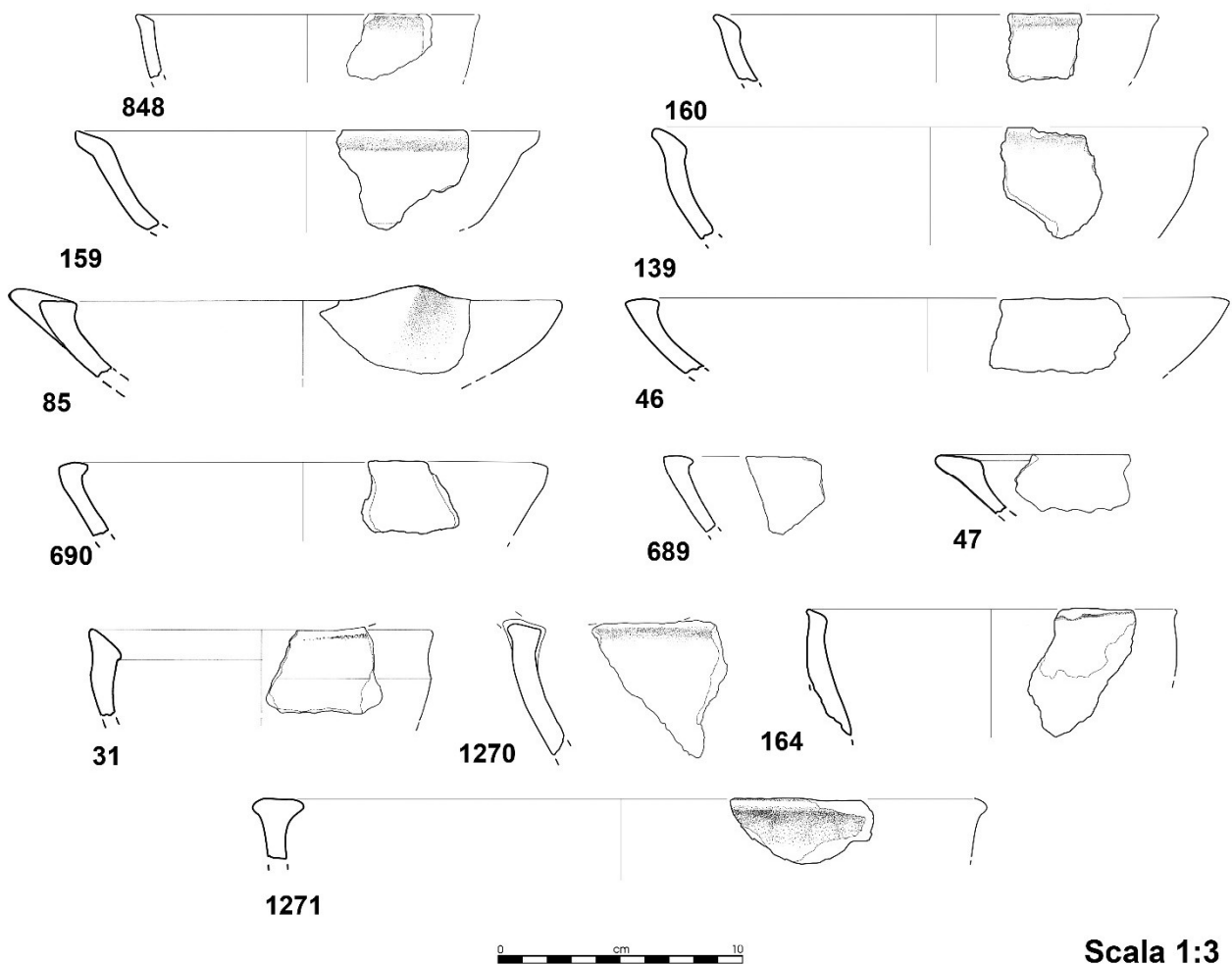


Fig. 12. Montarana. *Bowls with thickened lip.*
Scodelle con labbro ingrossato.

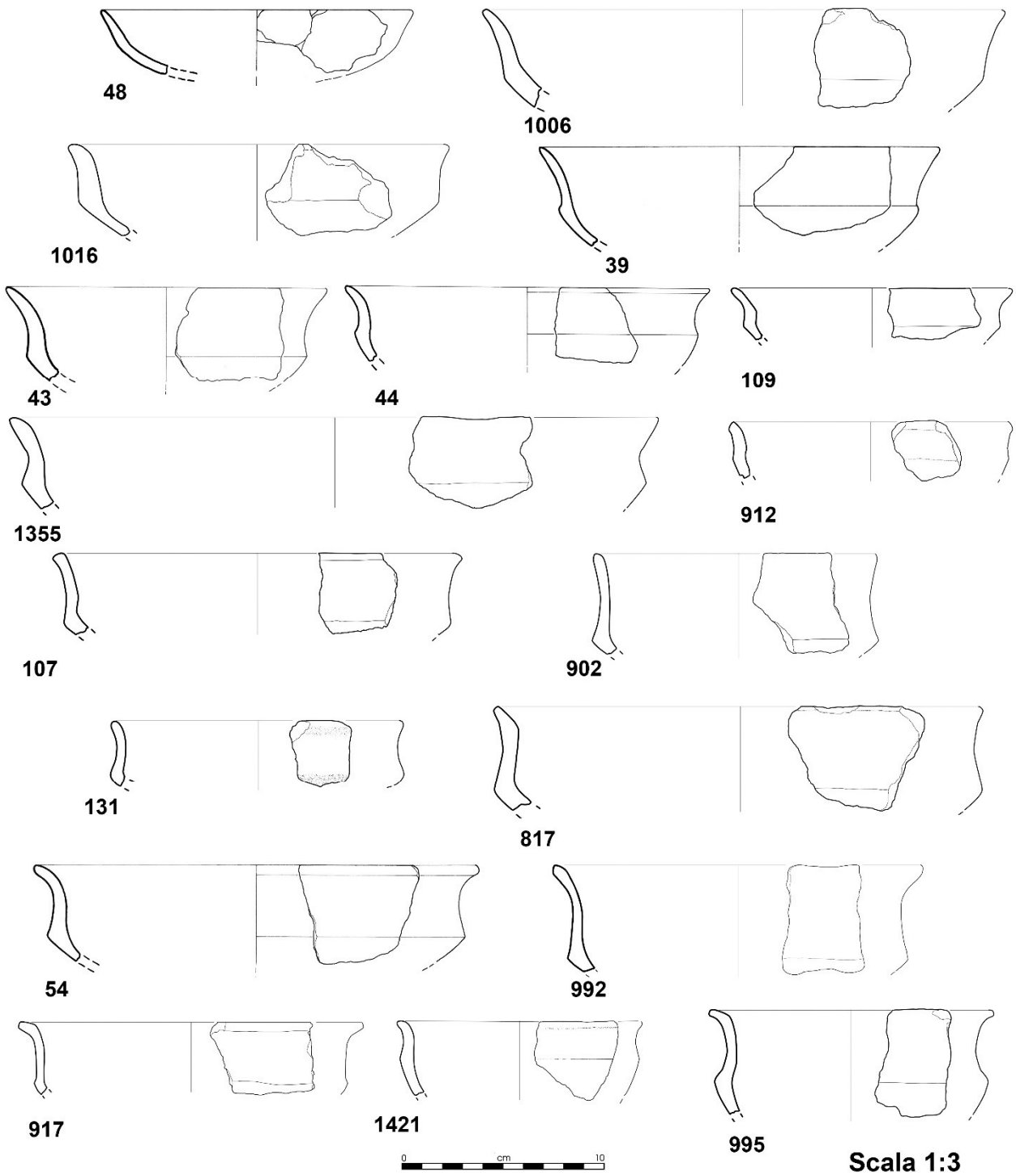


Fig. 13 Montarana. *Carinated cups with flaring or vertical side.*
 Ciotole carenate con parete svasata o verticale.

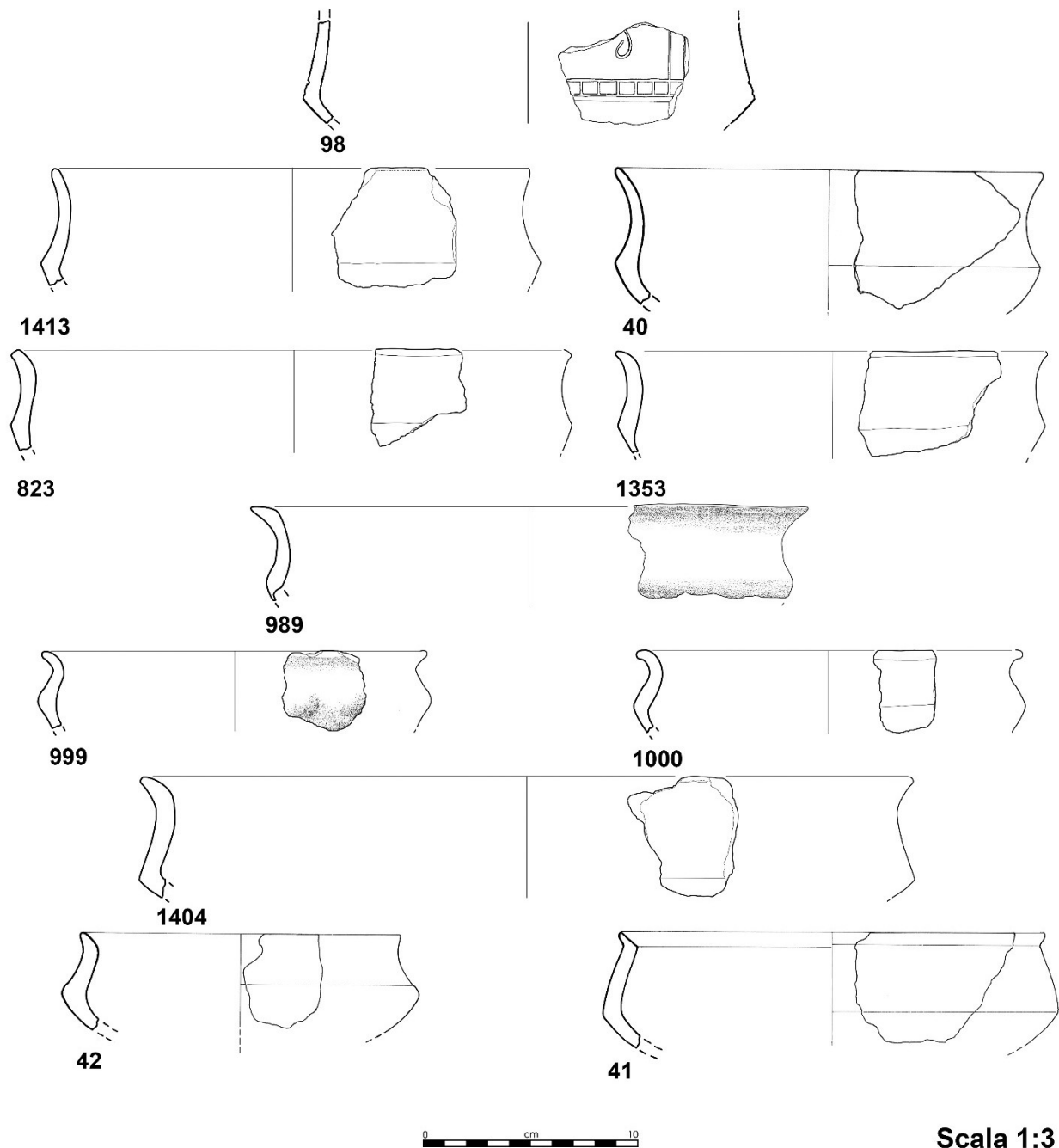


Fig. 14. Montarana. *Carinated cups with in-turned side.*
Ciotole carenate con parete rientrante.

HANDLED CARINATED CUPS (Figg. 15, 31)⁹

Shallow body, smooth carination, rounded shoulder, strap handle on the body, missing lip: n. 11.

Shallow body, sharp carination, slightly in-turned side, short everted lip, large strap handle on lip and carination: n. 828.

Deep body, smooth carination, everted neck, handle on body, missing lip: n. 1402.

Flaring side, no lip, large strap handle on rim and carination, missing raising handle part: n. 4.

In-turned side, short everted lip, strap handle on rim, missing raising handle part: n. 104.

Shallow body, vertical side, flaring lip, thick strap handle on rim and carination: n. 1356.

Shallow body, vertical side, no lip, tapered rim, strap handle on rim and carination: n. 26.

Shallow body, in-turned side, short everted lip, strap handle on rim and carination, head-shaped appendix with small bilateral knobs: n. 3.

⁹ The handled carinated cup and the biconical jar published in PENNACCHIONI, PERSIANI 1982 (fig. 1: 7 and fig. 2: 9) were then identified as belonging to the site of Ferleta and are not consequently presented here.

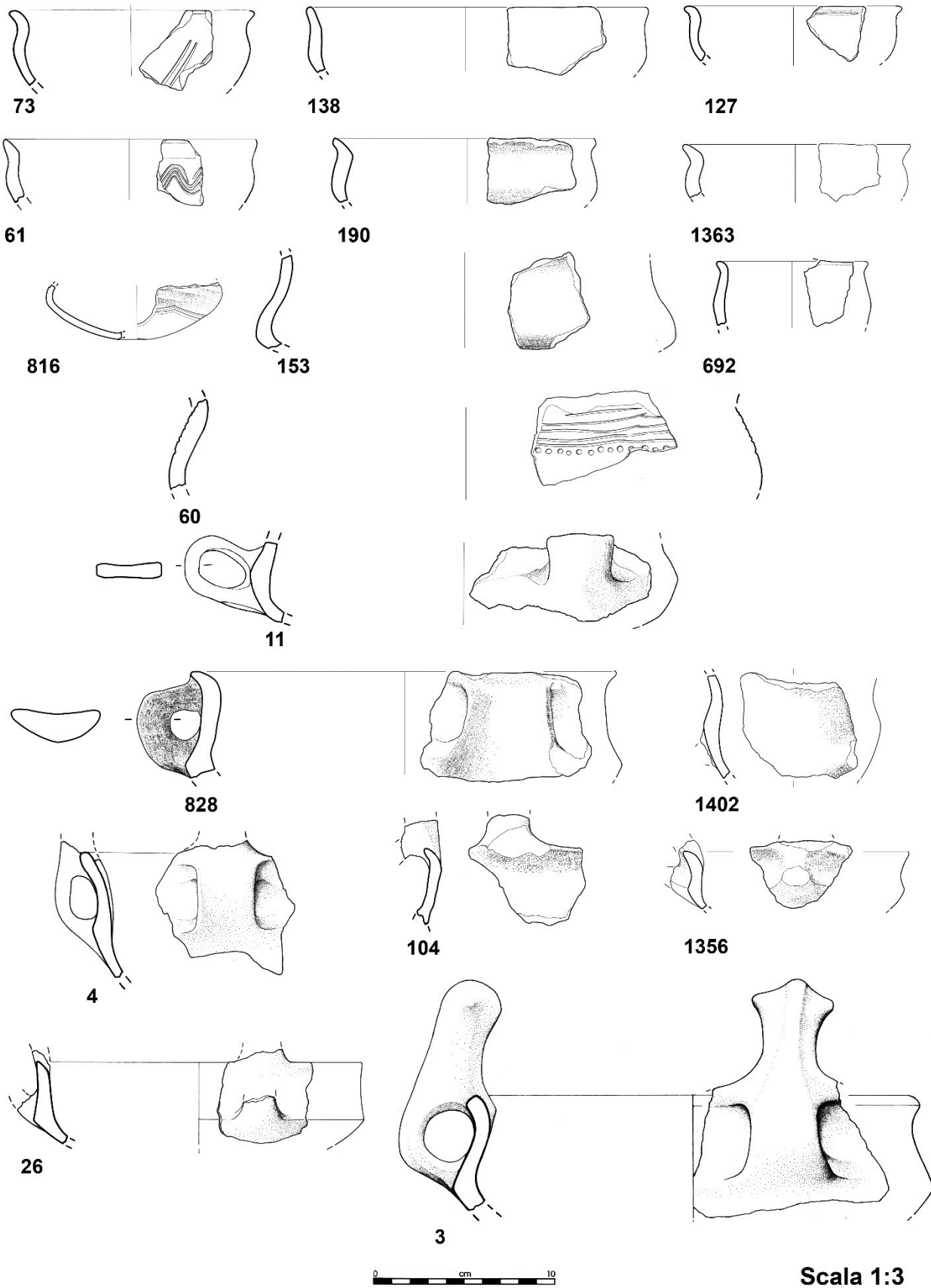


Fig. 15. Montarana. *Cups with off-set shoulder, with S-profile, handled cups.*
 Ciotole a spalla distinta, con profilo a S, tazze ansate.

PYXIS (Figg. 16, 31)

Carinated shoulder, straight in-turned side, hole-mouth with short everted lip, lug handle on carination: n. 19.

Carinated shoulder, straight in-turned side, hole-mouth with short everted lip, lug handle on carination, triple horizontal cord on side: n. 30.

Conical body, carinated shoulder, large hole mouth, grooved lip, tapered rim: n. 82; decorated with oblique comb pattern on body and zig-zag pattern on lip.

NECKED VASE (Fig. 16)

Bulging shoulder, concave neck, missing lip: n. 120.

LARGE HANDLED VASE (Fig. 16)

Everted lip, handle on rim: n. 699; decorated with triple parallel incisions in zig-zag pattern on lip interior.

BICONICAL VASES (Figg. 16, 31)

Small vase with sharp carination, truncated conical neck, everted lip. Vertical piercing on carination: n. 1; decorated with "turban" motif on carination, triple grooved line above it.

Small vase with bulging shoulder, truncated conical neck, everted lip: n. 9; decorated with "turban" motif on shoulder, triple grooved line above it.

Small vase with distinct shoulder, lower part of truncated conical neck, missing upper part and lip: n. 154; decorated with "turban" motif on shoulder.

Small vase with distinct shoulder, lower part of truncated conical neck, missing upper part and lip: n. 996; decorated with "turban" motif on shoulder, grooved lines above it.

Small vase with distinct shoulder, missing lower part, truncated conical neck, everted lip: n. 626; decorated with grooved lines above shoulder.

Large vase; truncated conical neck, the rest is missing: n. 639; decorated with comb pattern in wide zig-zag motif and a large dimple at center, horizontal groove in upper part.

Large vase; bulging shoulder, truncated conical neck, the rest is missing: n. 101; decorated with grooved zig-zag motif and a large dimple at center, horizontal band of many grooved lines in upper part.

Large vase; truncated conical neck, the rest is missing: n. 80; decorated with horizontal band of many grooved lines in lower part and series of dimples above it.

Large vase; bulging shoulder, the rest is missing: n. 627; decorated with "turban" motif on shoulder around a dimple, a grooved line above it.

MUGS (Figg. 17, 32)

Half-ovoid body, no lip, strap handle on rim and body: n. 8.

Half-ovoid body, very short everted lip, strap handle on rim and body: n. 10, 1424; n. 1424 with horizontal plain cord on shoulder.

Rounded body, no lip, thickened rim, strap handle on rim and body: n. 9.

Body missing, concave neck, no lip, rod handle on rim and neck: n. 24.

BASINS (Fig. 17)

Deep rounded body, no lip, lug handle on body attached to horizontal plain cord: n. 117.

Shallow rounded body, flat slightly everted rim, lug handle on body: n. 682.

SMALL JARS (Figg. 18, 31)

Large-mouth, round body, short neck marked by a faint cord, slightly everted lip: n. 53.

Globular body, hole-mouth, no lip: n. 38.

Globular body, no lip, thickened rim: n. 359.

Rounded body, upper and lower parts missing: n. 55; decorated with a triple grooved band on shoulder.

Globular body, everted lip: nn. 29, 35, 94; n. 35 with lug handle on shoulder attached to horizontal notched cord; n. 94 decorated with triple grooved zigzag pattern on the body, each stretch ending in a couple of impressed dots, alternated with triple dots in empty corners.

Rounded shoulder, everted lip: n. 850; decorated with triple grooved zigzag pattern on the shoulder and single groove above.

Barrel-shaped body, thick everted lip: n. 140; with horizontal notched cord on shoulder.

Rounded body, carinated shoulder, concave neck, other parts missing: n. 854.

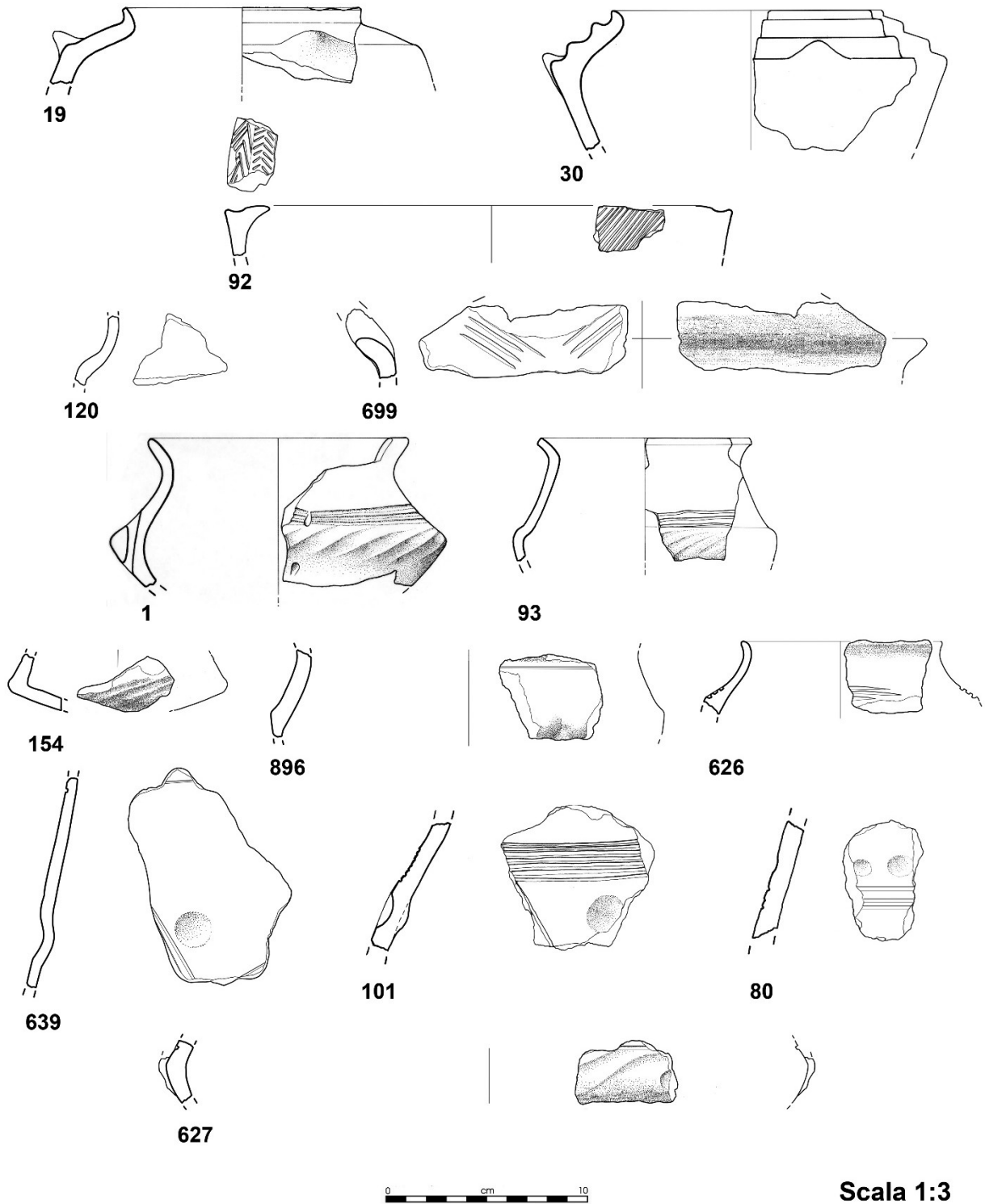


Fig. 16. Montarana. *Biconical vases, pyxis, amphora-like vase.*
 Vasi biconici, pissidi, vasi ad anfora.

JARS WITH ROUNDED BODY (Figg. 19, 32)

Hole-mouth, no lip, thickened rim: n. 32.

No lip, thickened rim: nn. 670; with horizontal notched cord on shoulder.

Short everted lip: nn. 162, 668, 734, 814; nn. 162, 668, 714 lug handle on body attached to horizontal plain cord; n. 668 lip internally decorated with a fingerprint series.

Everted lip, handle on rim: n. 654; with horizontal notched cord on shoulder.

Everted thickened lip: n. 90: decorated with a series of dimples on the shoulder.

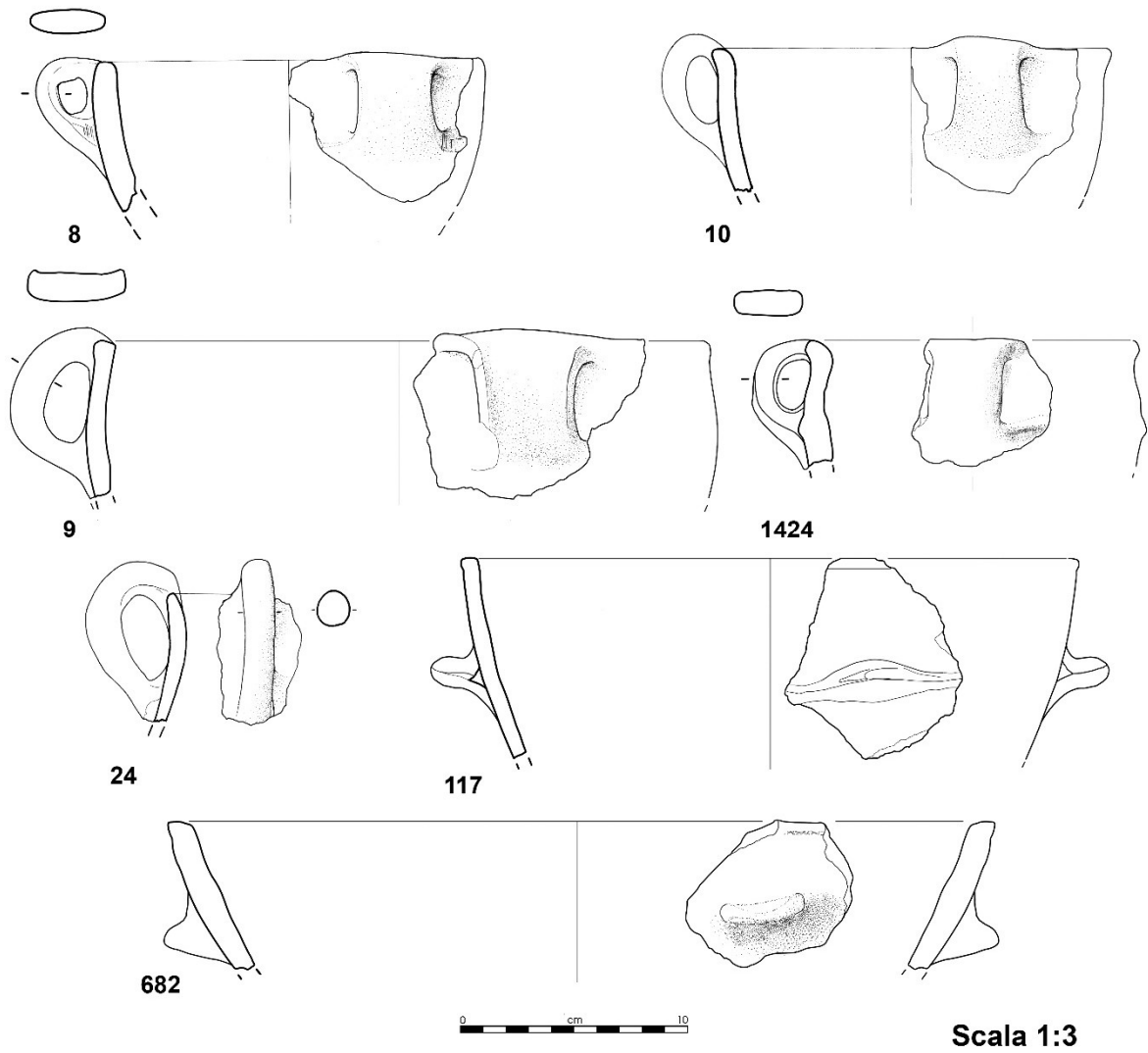


Fig. 17. Montarana. *Mugs and basins*. - Boccali e bacili.

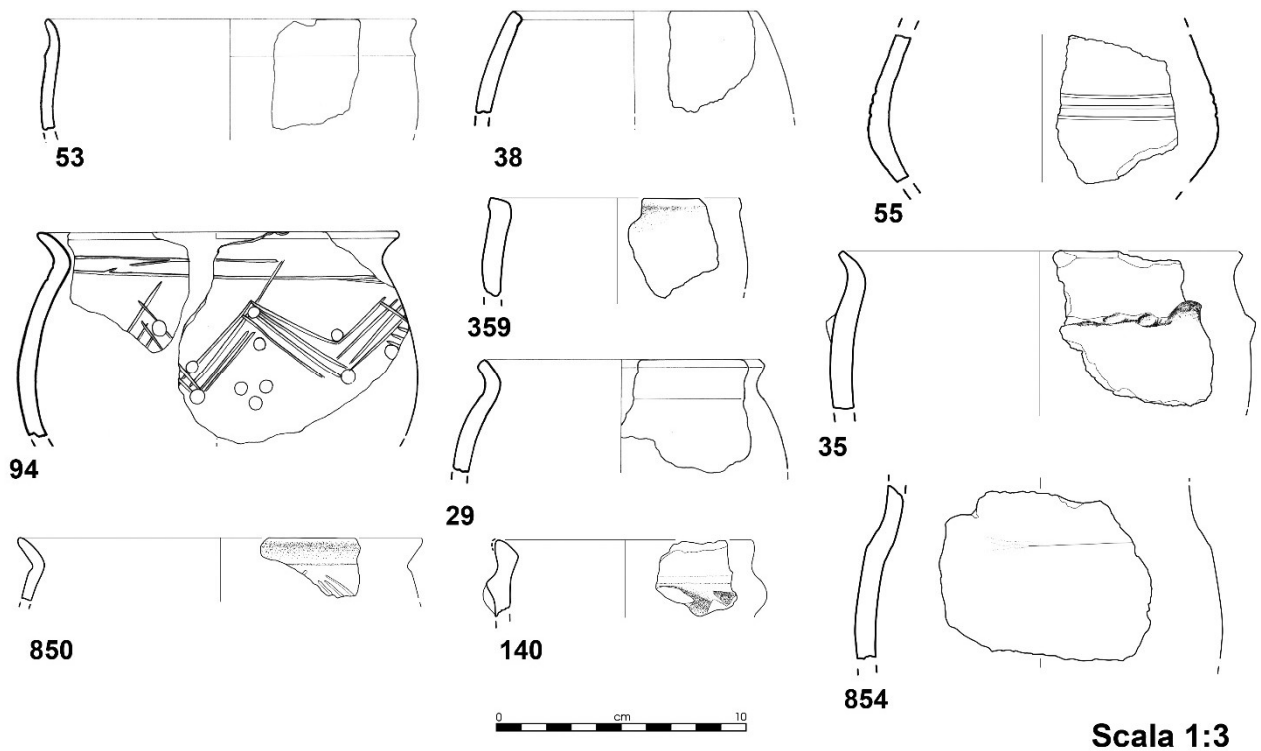


Fig. 18. Montarana. *Small jars*. - Ollette.

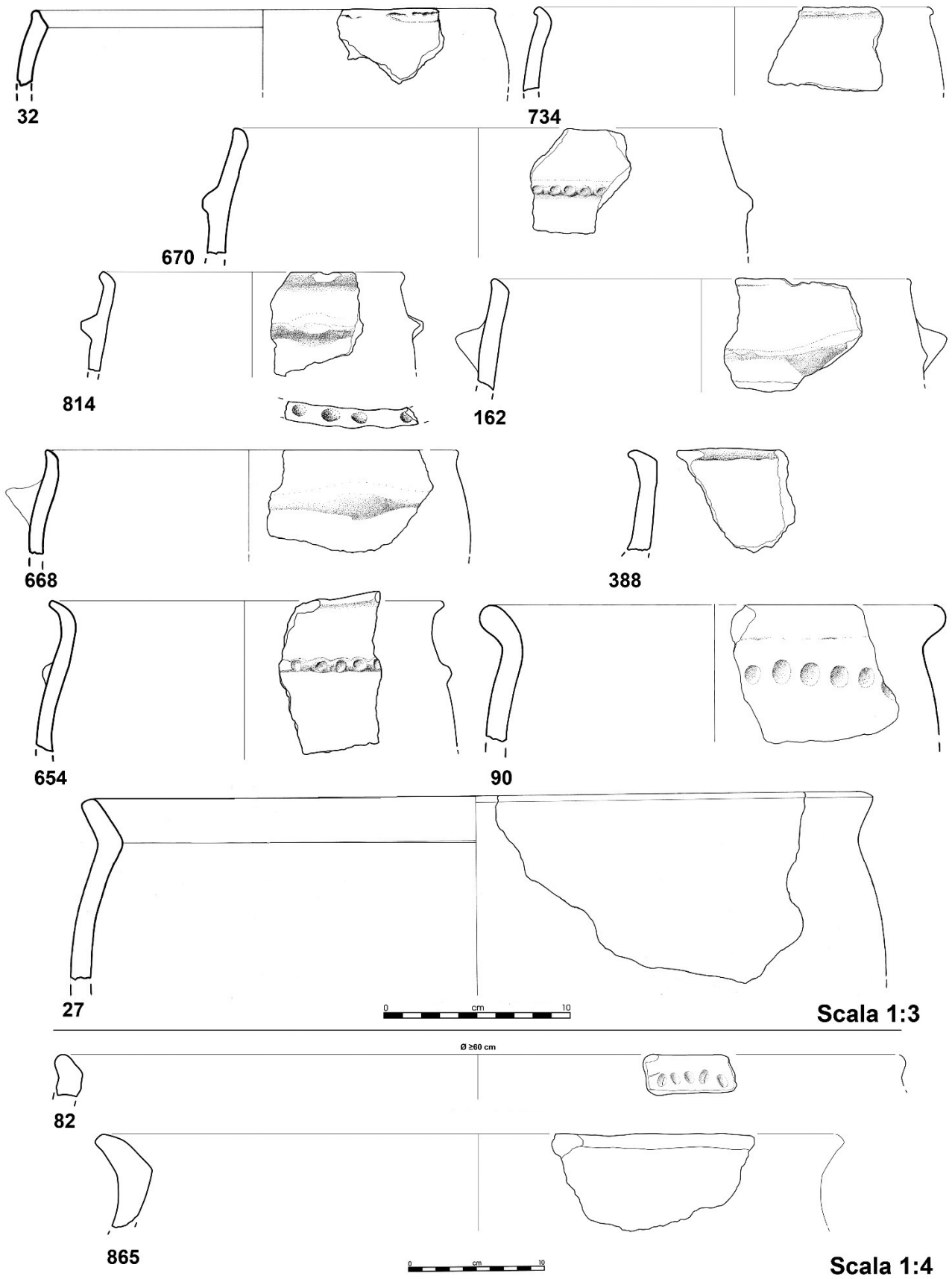


Fig. 19. Montarana. *Jars with rounded body.*
 Olle a corpo globulare.

LARGE JARS (Fig. 19)

Everted lip with inner angular insertion: n. 27.

No body preserved, short everted lip, diameter 60 cm or more: n. 82; decorated with a series of finger-nail impression near the lip.

No body preserved, everted lip with inner angular insertion and profile: n. 865.

No body preserved, truncated conical neck, flaring lip very large diameter: n. 368.

JARS WITH SWOLLEN SHOULDER AND HOLE MOUTH (Fig. 20)

In-turned, slightly concave side, no lip: n. 123.

In-turned, straight side, no neck: n. 996.

JARS WITH HIGH NECK (Fig. 20)

In-turned, concave neck, outer thickened rim: n. 191.

JARS WITH ALMOST CYLINDRICAL BODY (Fig. 20, 32)

Brim-like out-turned lip: n. 34; with horizontal notched cord under the lip.

JARS WITH OVOID, OVOID-CYLINDRICAL OR TRUNCATED CONICAL BODY (Fig. 21, 32)

Conical body, slightly everted lip: n. 33; with horizontal notched cord under the lip.

Conical body, thickened rim: n. 852; with horizontal plain cord under the lip.

Conical, slightly swollen body: n. 91; with horseshoe shaped plain cord under the lip.

Ovoid body with short slightly in-turned side, barely thickened rim: nn. 18, 37, 45, 122, 181; nn. 45, 122 with horizontal plain cord under the lip; n. 181 with twin horizontal plain cord under the lip; n. 18 with lug handle attached to a cord on the side and rim decorated with a series of fingerprints; n. 37, with rim-top and cordon on the side decorated with a series of strokes.

Almost cylindrical body, no lip: nn. 17, 20, 161; nn. 17, 20 with lug handle attached to a cord motif under the lip, n. 17 with notched rim; n. 161 with mid-notched lug handle attached to horizontal cord decorated with a series of finger impressions.

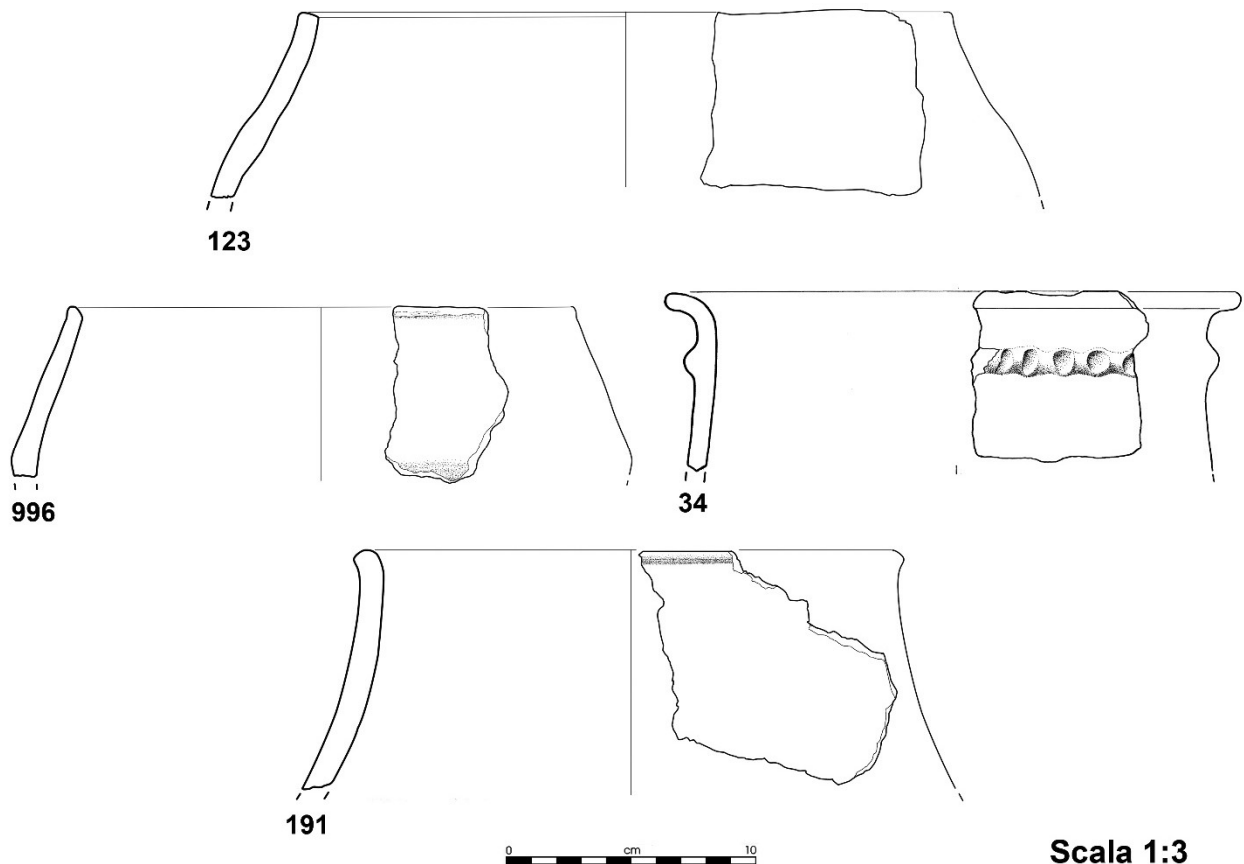


Fig. 20. *Montarana*. Necked jars.
Olle con collo.

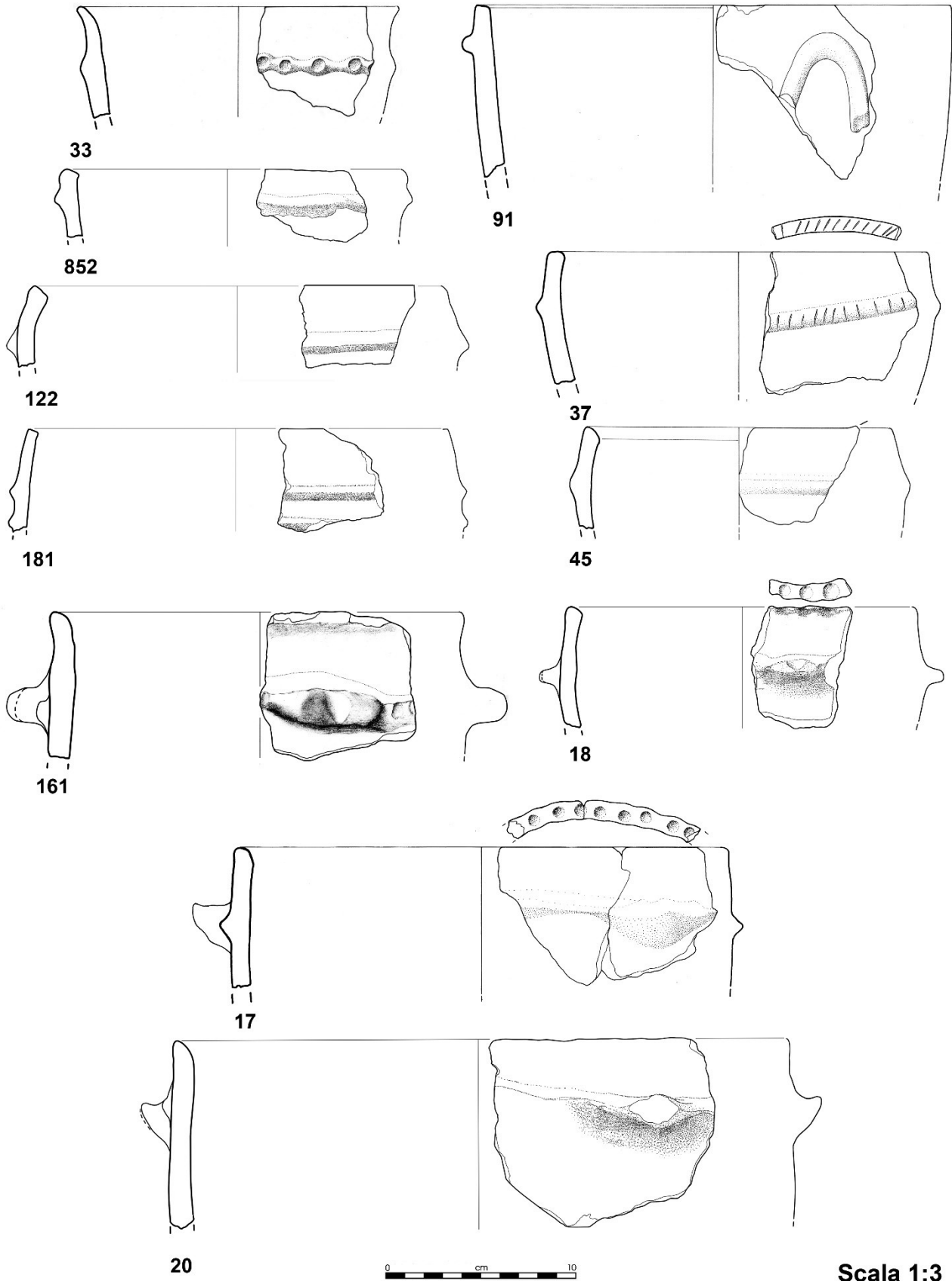


Fig. 21. *Montarana. Slender jars.*
Dolii.

POTS WITH CYLINDRICAL BODY (Fig. 22)

Flat rim: nn. 368, 450.

Flat, slightly expanded rim: nn. 36, 118, 362; n. 36 with horizontal plain cord on body.

Short neck, flat rim, with horizontal plain cord on body: n. 655.

JAR NECKS AND LIPS (Fig. 23)

Rounded body, thickened rim: n. 436.

Low concave neck, thickened rim: n. 414.

Flaring neck, no lip: n. 428.

Flaring neck, thickened rim: nn. 115, 815, 894.

Short vertical lip: nn. 411, 415, 421.

In-turned side, thickened rim: n. 847.

Truncated conical side, thickened rim: n. 410.

Truncated conical side, flaring lip: nn. 28, 156, 825, 1250; n. 825 decorated with horizontal band of parallel grooves.

Truncated conical side, strongly out-turned lip: nn. 895, 1037.

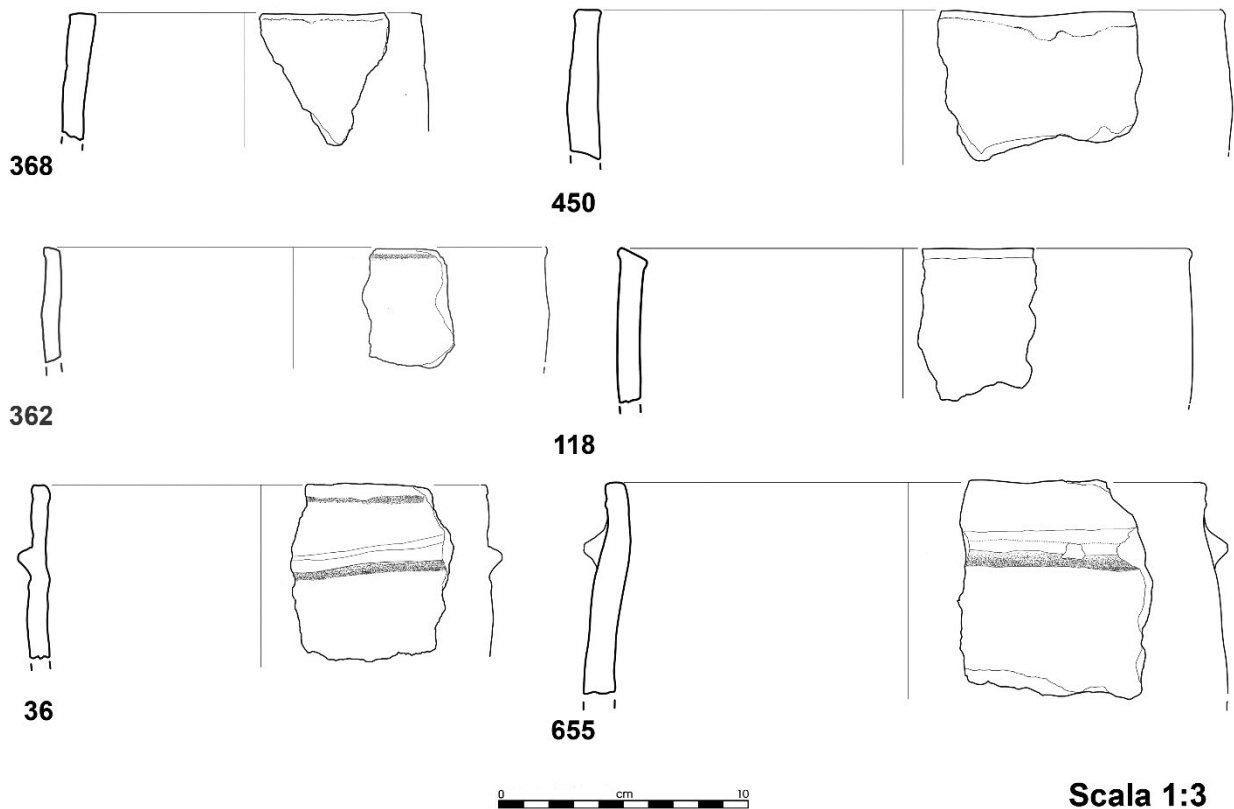
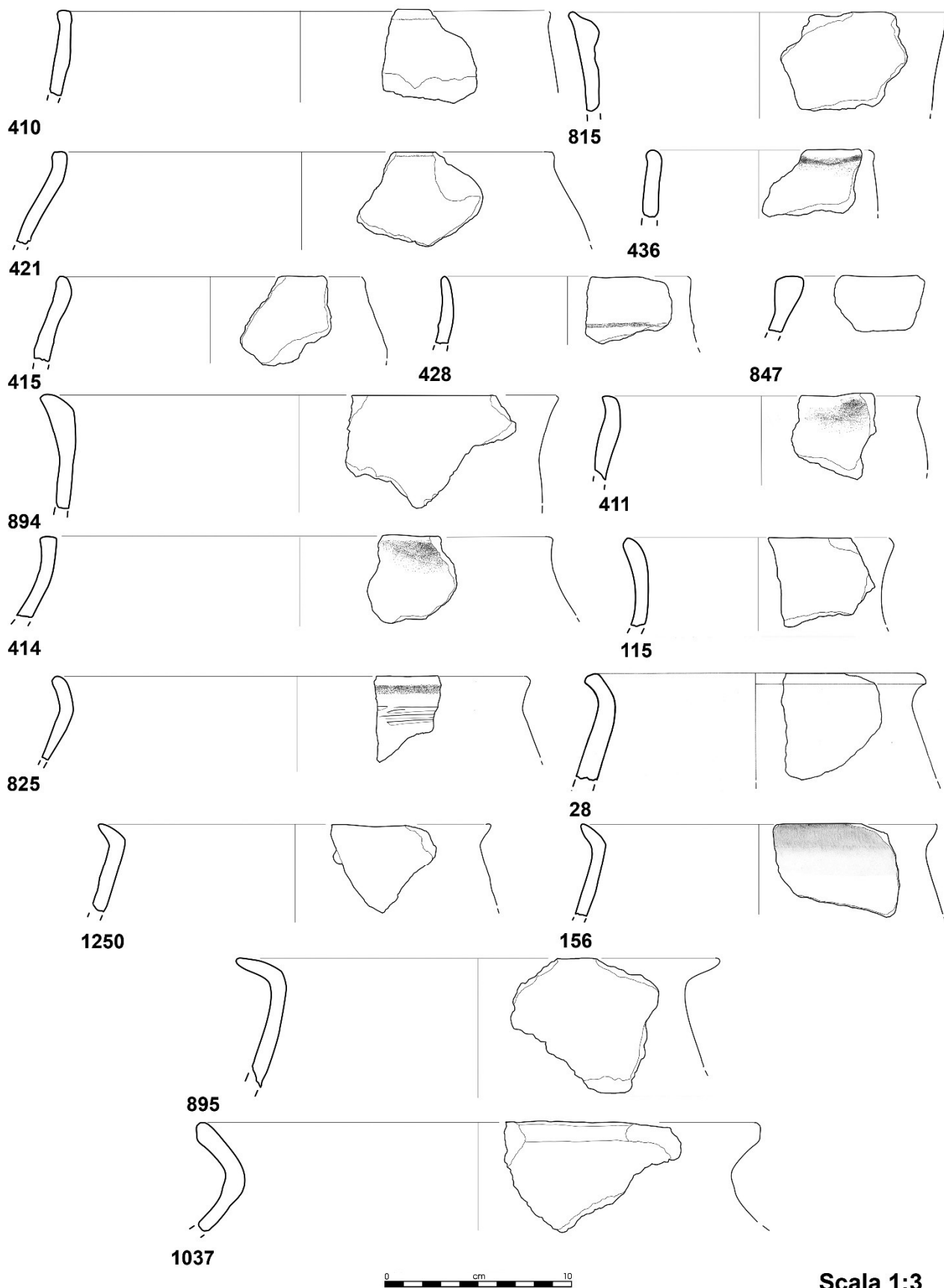


Fig. 22. Montarana. Pots.
Pentole.



Scala 1:3

Fig. 23. Montarana. *Jar lips*. - Labbri di olle.

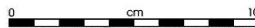
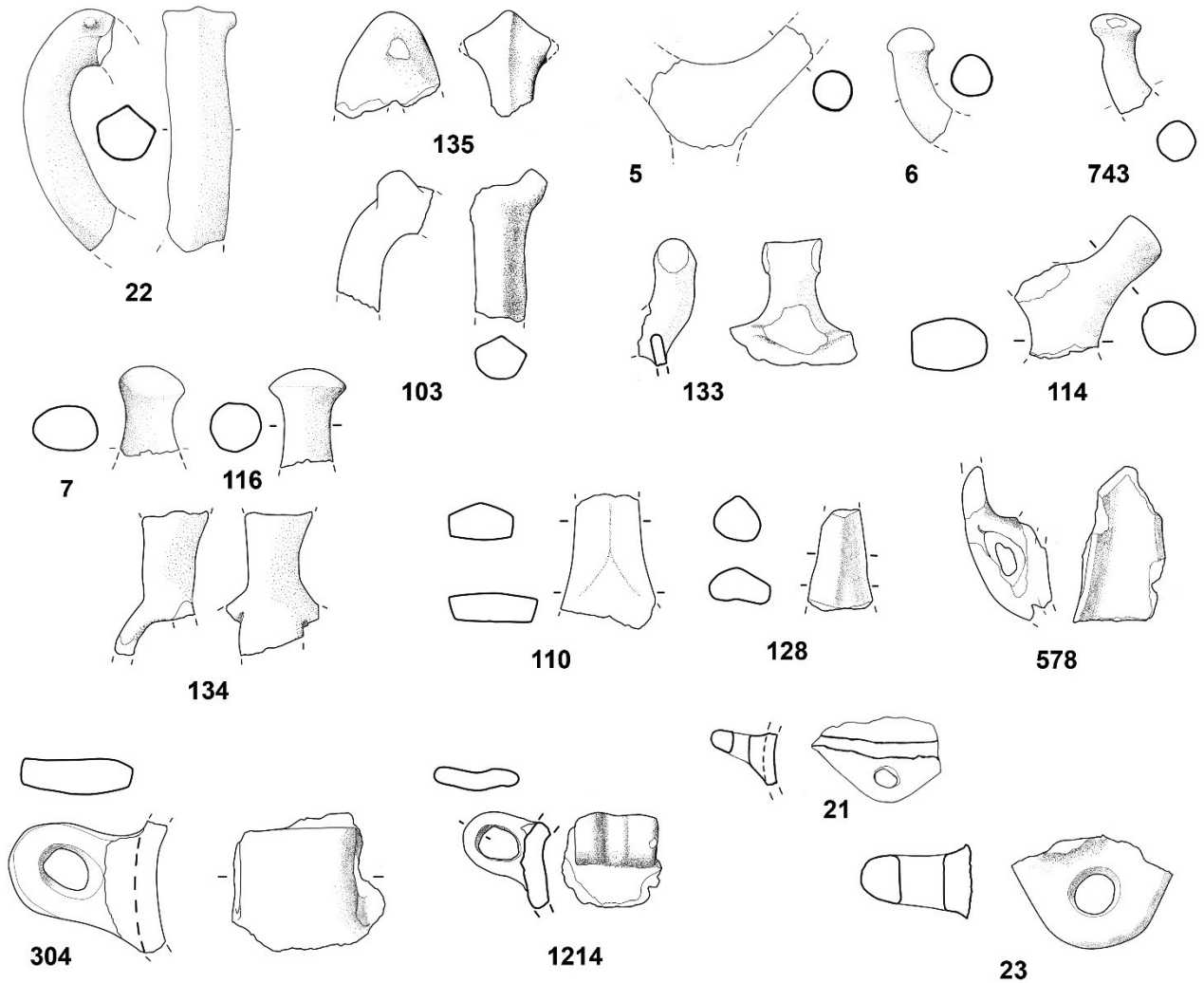
HANDLES (Figg. 16, 24, 31, 32)

Rod handle raised above the rim with small bilateral knobs: nn. 3, 22, 135.

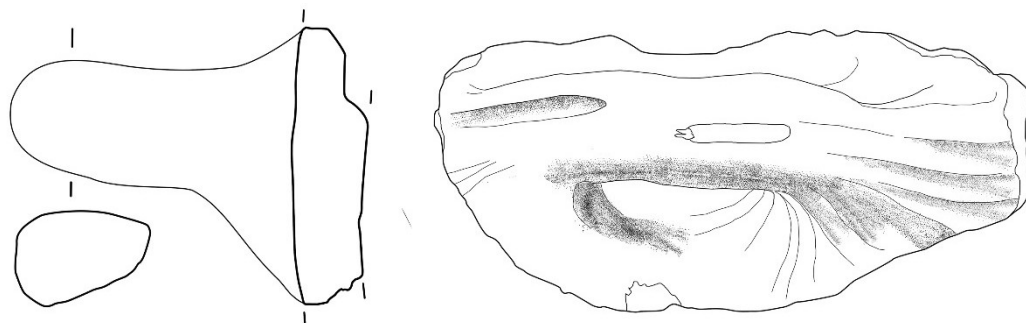
Rod handle raised above the rim with bilateral upward knobs: n. 103.

Horn-shaped appendix: nn. 5, 114, 133.

Horn-shaped appendix ends: nn. 6, 743.
 Strap handle on rim with raised cylindrical appendix: n. 134.
 Raised cylindrical appendix end: nn. 7, 116.
 Strap handle with central longitudinal ridge: nn. 110, 128.
 Strap handle with central bridge: n. 578.
 Ring shaped strap handle on body: nn. 175, 176, 304, 1214.
 Horizontal strap handle: n. 171
 Horizontal rod handle: nn. 23, 176.



Scala 1:3



176

Scala 1:4

Fig. 24. Montarana. *Handles*. - Anse

LUG-HANDLES (Fig. 25, 33)

Trapezoidal profile with central depression, horizontally pierced: n. 16.

Saddle shaped, horizontally pierced: nn. 12, 14.

Tubular body with further vertical hole: n. 15.

Raised horn lug: n. 105.

Half-bobbin lug: n. 13.

Knob-lug decorated with fingernail impression: n. 577.

Trapezoidal lug: n. 740.

Half round lug: n. 733.

Mid-notched lug attached to horizontal cord decorated with a series of finger impressions: n. 1209.

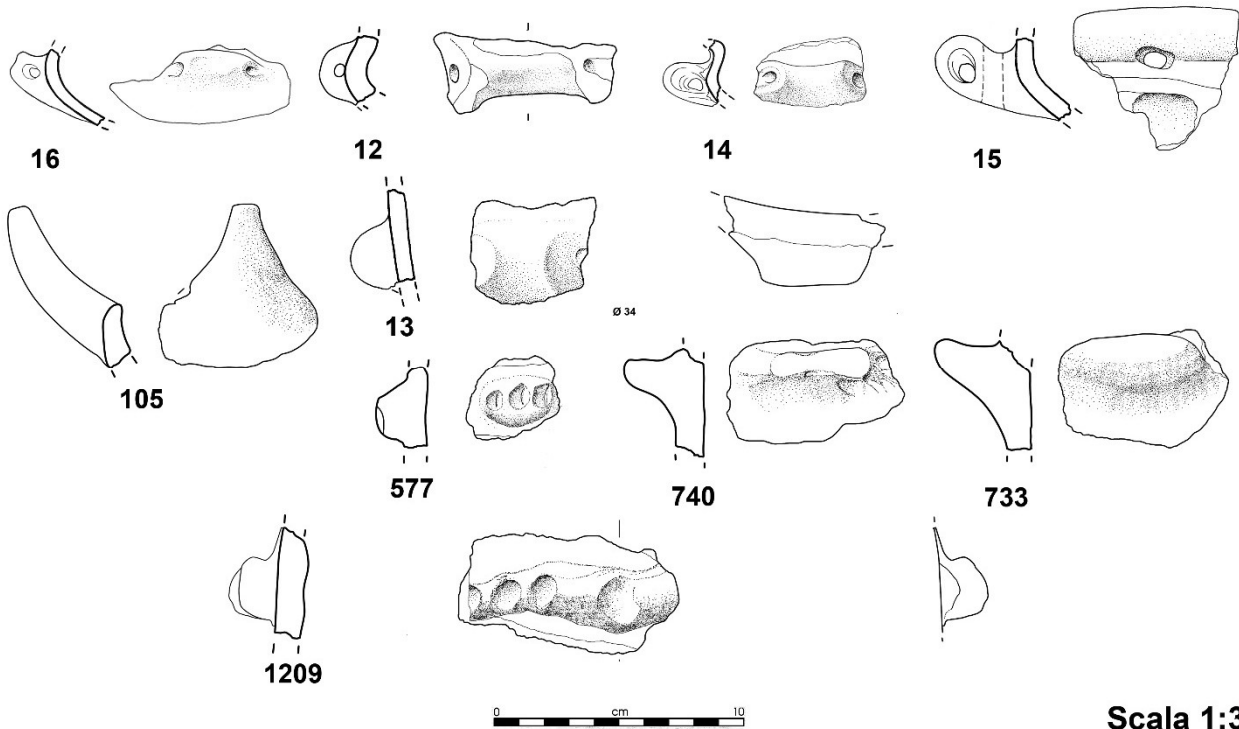


Fig. 25. Montarana. Lugs. - Prese.

INCISED, IMPRESSED AND GROOVED DECORATIONS (Fig. 26, 27, 34)

Simple rim with rim-top decorated with a series of strokes: n. 58.

Large out-turned lip decorated with a series of radial strokes: n. 65.

Straight in-turned neck, flat thickened rim, decoration of comb-incised horizontal strip: n. 198.

Etched irregular lozenge filled with vertical strokes: n. 76.

Large comb-incised horizontal strip: n. 1201.

Carinated shoulder with comb-incised horizontal strip: n. 1310.

Zig-zag pattern of multiple strokes: nn. 69, 77.

Irregular incised horizontal strip: n. 78.

Very large oblique strip of deep grooves: n. 56.

Grooved zig-zag between horizontal strips: nn. 79, 700, 1043.

Zig-zag pattern and horizontal band of multiple irregular strokes: nn. 66, 67.

Series of very large horizontal grooves: n. 59.

Curved band of large grooves: n. 83.

Series of slanting grooves and dot on shoulder: n. 75.

Horizontal band of multiple irregular strokes above notched carination: n. 130.

Zig-zag combed pattern flanked by rows of impressed dots: n. 100.

Comb pattern band flanked by rows of impressed dots: nn. 99, 125, 1202.

Comb pattern bands flanked by rows of impressed dots above shoulder embossing: n. 1200.

Diagonal band of grooves and a dimple: n. 132.

Rope-like pattern horizontal and diagonal bands: nn. 68, 70.

Rope-like pattern flanking comb pattern in horizontal band: n. 136.

Rope-like pattern flanking comb pattern in horizontal and vertical bands: n. 126.

Comb pattern bands flanked by rows of impressed dots above shoulder embossing: n. 170.

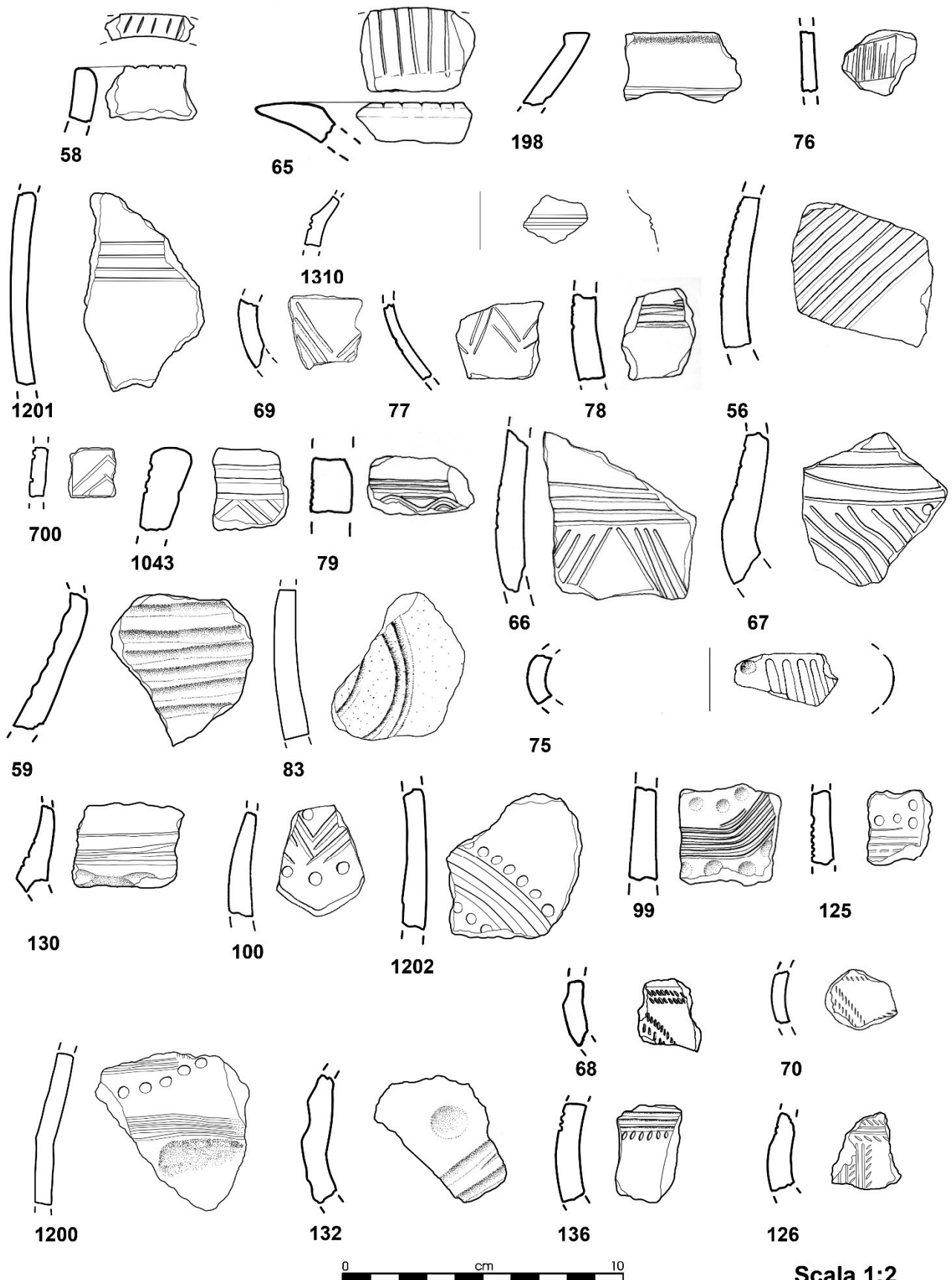


Fig. 26. Montarana. *Incised and grooved decorations.* - Decorazioni a incisione e impressione.

IMPRESSED AND RELIEF DECORATIONS (Figg. 27, 34)

Small knob on rim: n. 108.

Single line of finger impressions: n. 63.

Multiple lines of finger impressions: n. 64.

Multiple cord pattern with finger impressions: n. 644.

Knob with irregular group of finger impressions: n. 642.

Series of small knobs: n. 57.

Multiple parallel plain cord pattern: n. 1077.

Horizontal and wavy plain cord pattern: n. 179.

Crossed plain cord pattern: n. 1321.

Spiral plain cord pattern: n. 96.

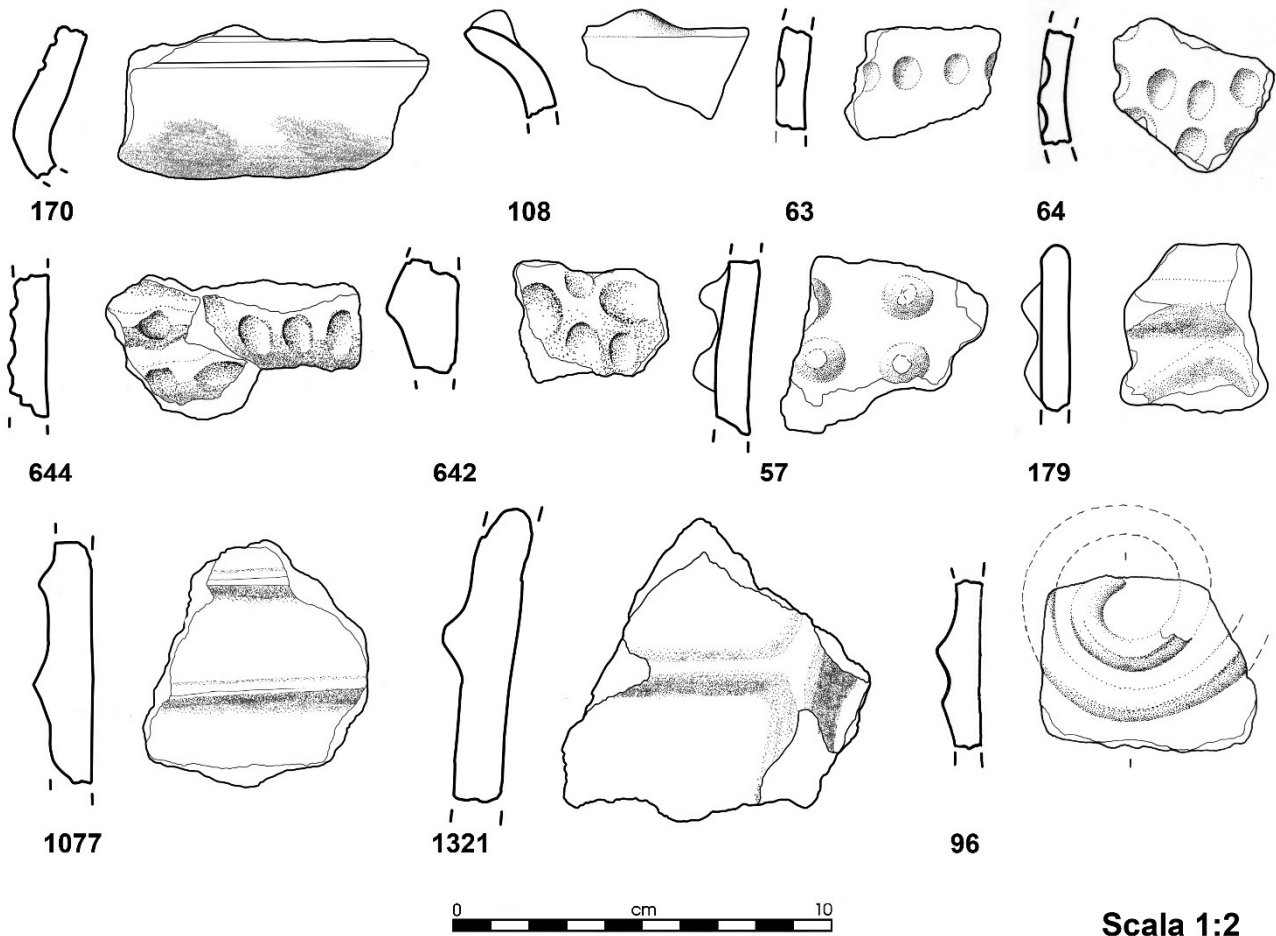


Fig. 27. Montarana. *Impressed and relief decorations.*
Decorazioni plastiche.

INNER-LEDGED JARS (Figg. 28, 32)

Cylindrical body: nn. 151, 1238.

Out-turned upper part: nn. 152, 822.

Out-turned upper part, inner ledge with interruptions: n. 1239.

Basin-like shape, slight inner ledge, lug near the lip: n. 1237.

BUCKETS (Figg. 28, 32)

Vertical handle with central ridge, decorated with a series of notches or finger impressions: nn. 25, 555.

Vertical handle attachment on the rim, decorated with plain cord in simple or multiple arrangement: nn. 192, 193.

SPOUTED VASES (Figg. 28, 32)

Rounded body, lip-spout and filter: n. 129.

Tubular spouts: nn. 590, 821.

FEET (Fig. 28, 32)

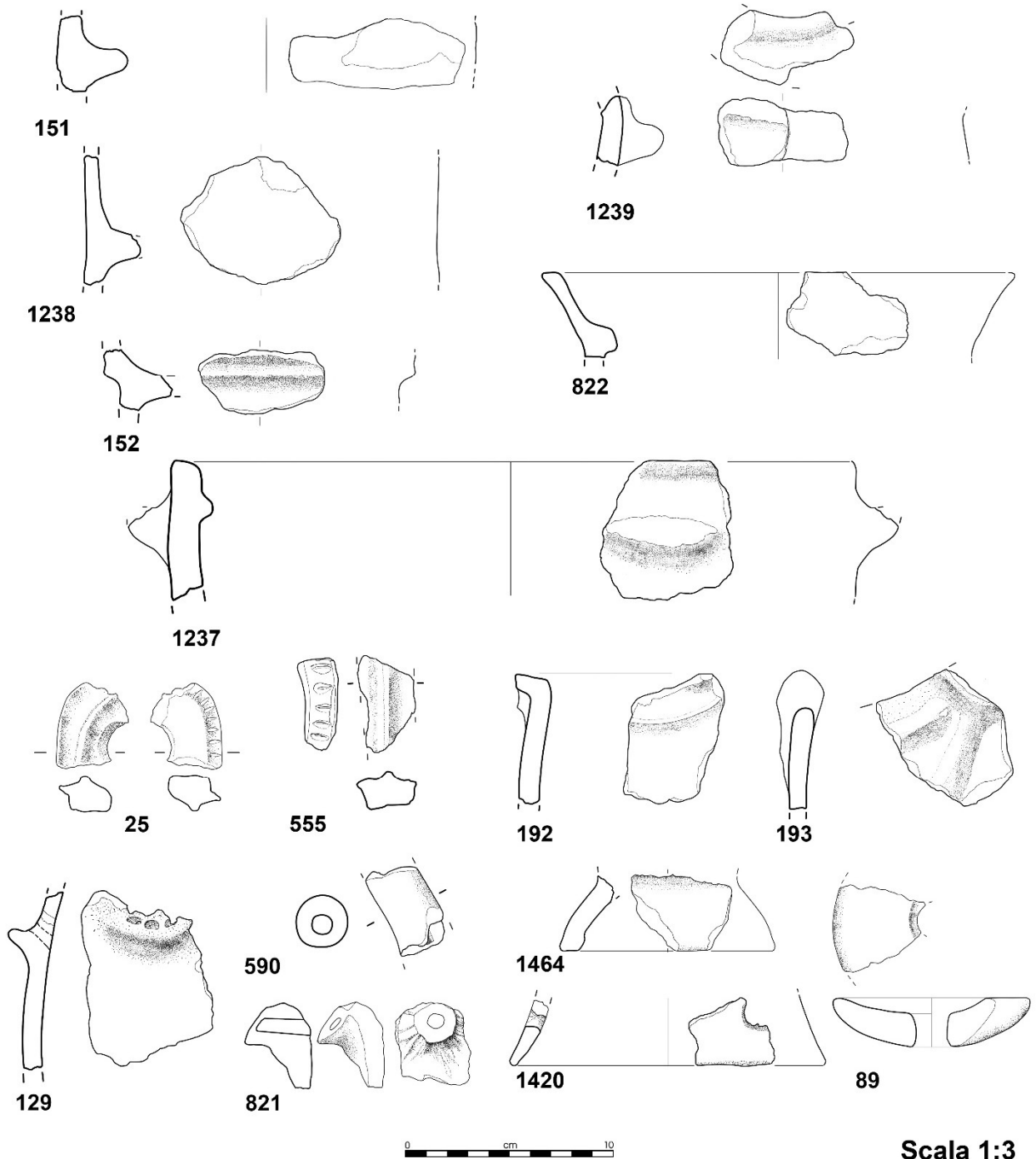
Bell shaped, flat rim: n. 1464.

Pierced flaring side, rounded rim: n. 1420.

TOOLS/OBJECTS (Fig. 28, 32)

Ring shaped disk: n. 89.

Spout shaped object: n. 581.



Scala 1:3

Fig. 28. Montarana. *Vases with inner ledge, buckets, spouts, ring shaped object.*
Vasi a listello interno, situle, versatoi, oggetto anulare.

LIDS (Figg. 29, 32)

Small bell-shaped lid: n. 88.

Flat top and flaring side, bridge handle on top: n. 180.

Convex body, no lip: nn. 186, 187.

Convex body, no lip, plain cord near the rim: n. 636.

Convex body, no lip, cord near the rim decorated with finger impressions: n. 637.

Convex body, no lip, vertical plain cord and other near the rim decorated with finger impressions: n. 95.

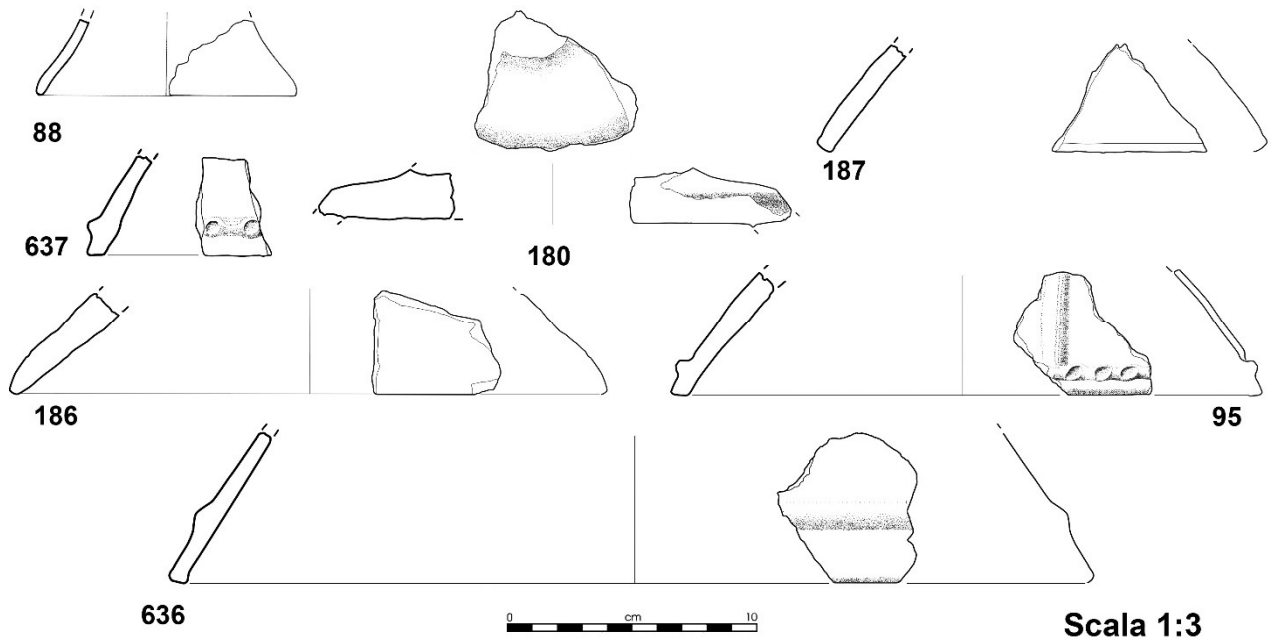


Fig. 29. Montarana. Lids.
Coperchi.

STOVES (Figg. 10, 30, 32)

Flat top type, arm: n. 141.

Raised top type, arm, ledge with finger impressions: n. 1344.

Raised top type, doorframe, arm; ledge with finger impressions: n. 819.

Flat top type, upper hole: n. 1345.

Raised top type, ledge and hole: n. 145.

Raised top type, doorframe: n. 146.

Door side: n. 818.

Door side near the base, with side plain cord: n. 1069.

Door side near the base, with side cord decorated with finger impressions: n. 1070.

Movable fire plate with holes: n. 1364.

Base: nn. 614, 1251.

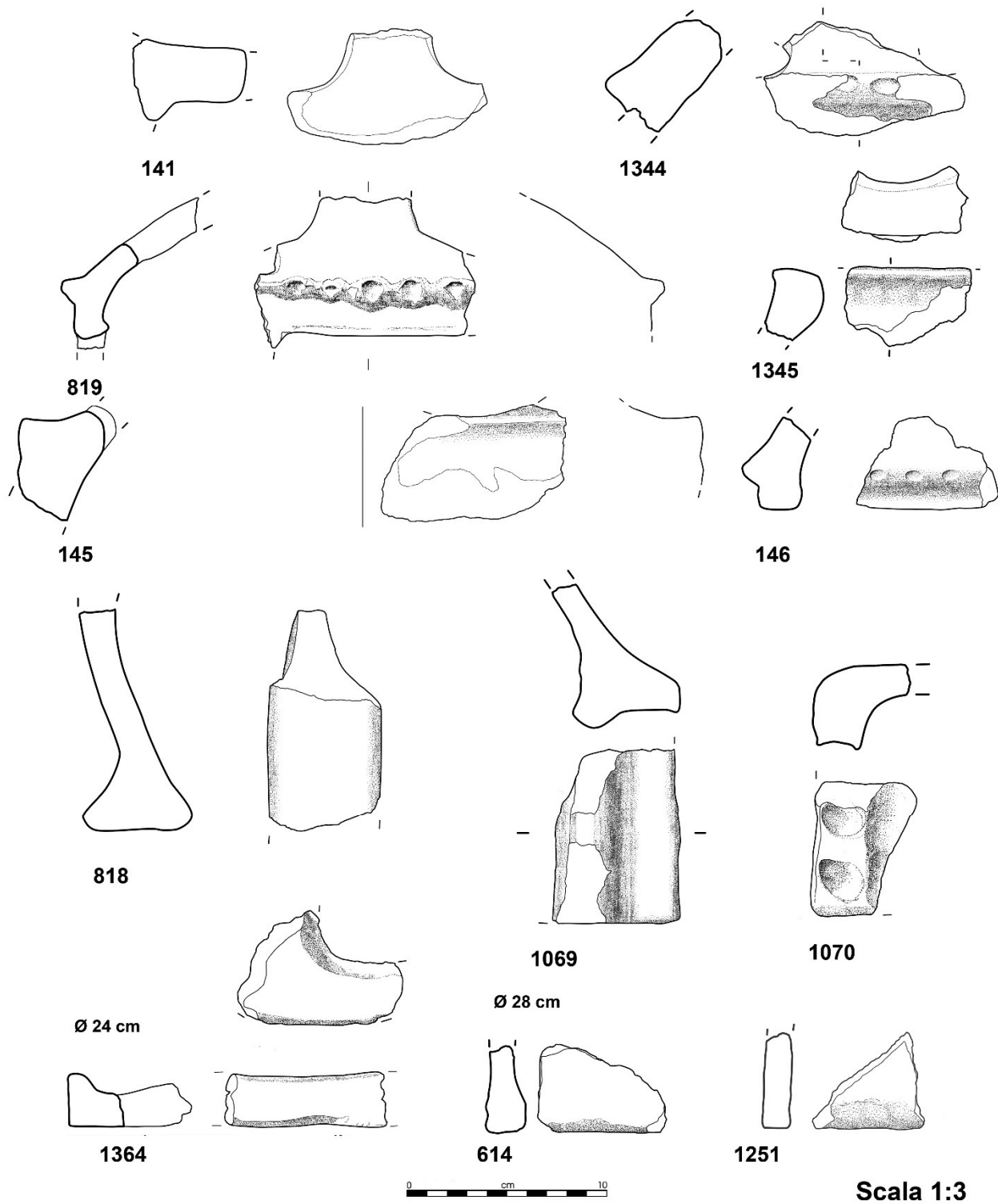


Fig. 30. Montarana. *Stoves.*
Fornelli.



Fig. 31. Montarana. *Bowl, cups, biconical vases, small jar, pyxis.* Photo Stefano Castellani.
 Scodelle, ciotole, vasi biconici, olletta, pissidi. Foto Stefano Castellani.

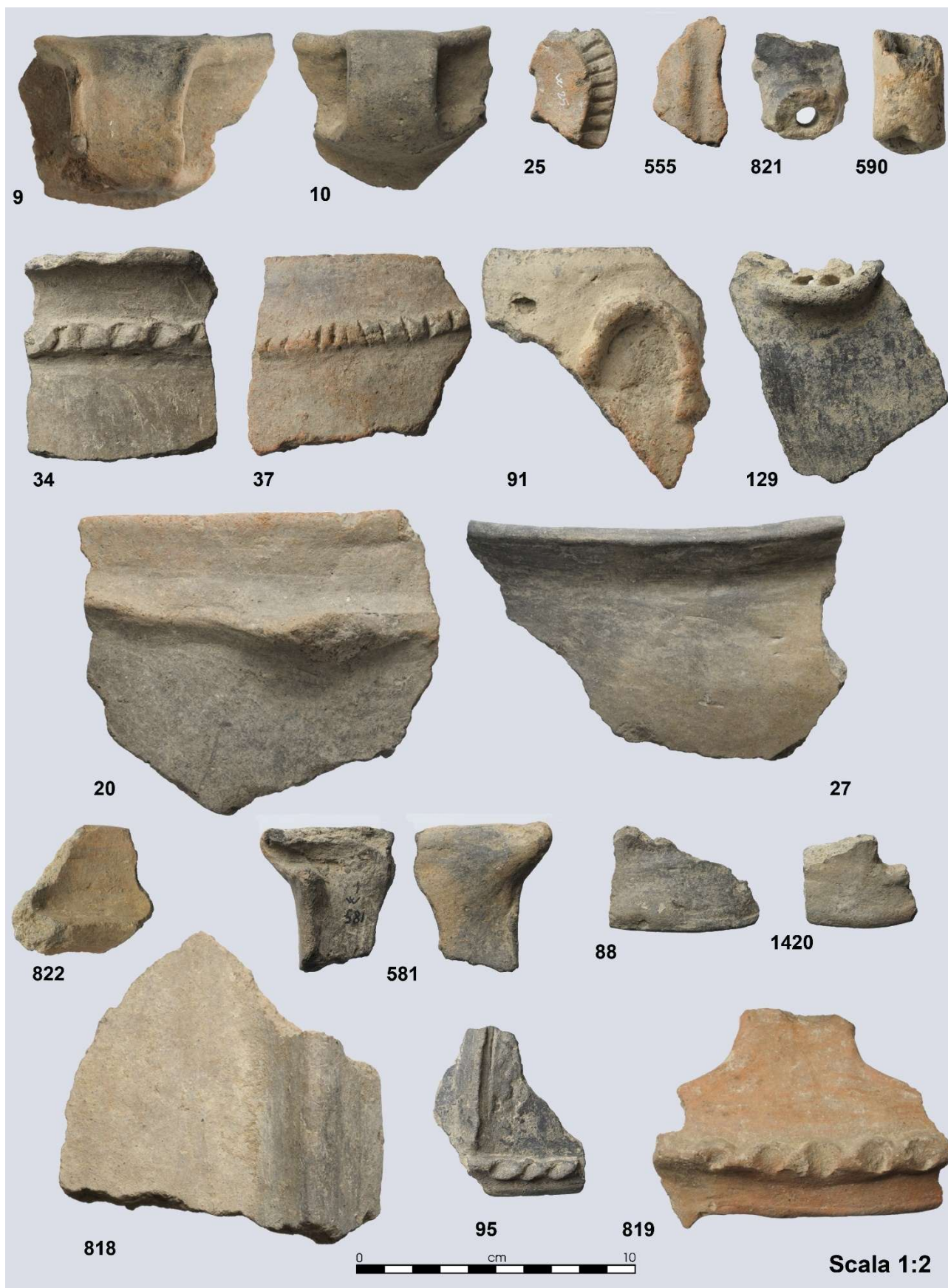


Fig. 32. Montarana. *Mugs, buckets, spouts, jars, vase with inner ledge, lids, foot, stoves, unidentified object.* Photo Stefano Castellani. – Boccali, situle, versatoi, doli, olle, vaso a listello interno, coperchi, piede, fornelli, oggetto non identificato. Foto Stefano Castellani.



Fig. 33. Montarana. *Handles and lugs*. Photo Stefano Castellani.
 Anse e prese. Foto Stefano Castellani.



Fig. 34. Montarana. *Incised and grooved, impressed and relief decorations.* Photo Stefano Castellani.
Decorazioni a incisioni, solcature, impressioni e cordoni plastici. Foto Stefano Castellani.

OBJECTS

Objects comprise a centrally pierced slightly concave disk (Fig. 25: 89). It belongs to a group of objects with sections from quite flat to slightly concave to donut-like¹⁰. Published documentation from Southern Etruria include some *specimens* from FBA contexts at San Giovenale (POHL 1977, pl. 21: OH I-93; KARLSSON 2006, pl. 5: 111, 317), Luni sul Mignone (HELLSTROM 1975, pl. 79: 37-39), Sorgenti della Nova (NEGRONI 1995, fig. 147: 84-86) and Punta degli Stretti (ARCANGELI *et alii* 2002, fig. 4: 6). A smaller type comes from Luni sul Mignone (WIESELGREN 1969, fig. 17: 420; HELLSTROM 1975, pl. 52: 21). For their dimension and the diameter of the central hole they can hardly be considered as spindle whorls and are interpreted as weights or tools somehow related to fire-place activities. In present Author's view, their function as flywheels for drills is suggested by a lot of ethnographical examples.

An even more difficult interpretation regards an apparently spout-shaped object, with a smoothed exterior and a curved shape, hardly referable to a vessel part (Fig. 29: 581).

A small stone plaque, incomplete, with smoothed end might have been part of a tool as a spatula or scraper (Fig. 35 F). A flat pebble, stranger to the geological formation of Montarana, possibly a smoother (Fig. 35 E), has parallels at Luni sul Mignone (WIESELGREN 1969, fig. 11: 274, 275, fig. 17: 421-427) and Sorgenti della Nova (NEGRONI 1995, fig. 150: 138-139). Two flint flakes (Fig. 35 G) without use marks have parallels in the quite rare presence of flaked stone industry in LBA as already seen, e.g. in San Giovenale (BERGGREN, BERGGREN 1980, pl. 16; 1981, pl. 38) and Sorgenti della Nova (NEGRONI 1995, fig. 151: 145-152).

CHRONOLOGY

The general outline of Montarana chronology was presented in many papers¹¹; all the published sherds belong to the two phases of the Italian Late Bronze Age: Subappennine (Recent Bronze Age - RBA) and Protovillanovan (Final Bronze Age – FBA). Earlier periods were represented by one sherd belonging to the local Bell Beaker pottery style of late Copper Age (Fig. 7 and 28: 102; PENNACCHIONI, PERSIANI 1980, tav.1:1)¹² and a decorated Apennine-style cup suggesting the presence of a Middle Bronze Age 3 horizon (Fig. 11 and 31: 98; PENNACCHIONI, PERSIANI 1980, tav.1: 13); on the other hand,

¹⁰ These objects are frequently defined by Italian archaeologist as "taralli", as they recall a typical Italian biscuit (NEGRONI 1995, p. 373).

¹¹ PENNACCHIONI, PERSIANI 2002; TRUCCO 2007; DAMIANI 2010, pp. 48-49.

¹² Types and distribution of Bell-Beaker related pottery are discussed in ANZIDEI, CARBONI 2020, pp. 223-225.

the rare presence of such decorated vessels is known in other RBA contexts¹³, hinting at the occasional late survival of an ending decoration tradition. Both Copper Age, Early Bronze Age (EBA) and Middle Bronze Age (MBA) pottery was reported from 1977-1982 surveys by G. Adinolfi for her unpublished M. A. thesis (TRUCCO 2007, p. 318)¹⁴ while even earlier phases were reported by Vitagliano¹⁵.

Discerning the detailed internal chronology of Montarana pottery corpus is a rather hard task, as is for all the surface sites, considering the still scarce stratigraphic contexts available (BARBARO 2010, p. 71). In addition, as already reminded, while for the RBA pottery a very wide and detailed typological and chronological study is available (DAMIANI 2010) such as for the earlier Bronze Age periods (COCCHI *et alii* 1995, COCCHI 1998 - 2001), nothing similar still exists for FBA. Some attempts to classify pottery changes in the Final Bronze Age were mostly oriented to discern a general, reliable chronological framework than to discuss a wholesome body of shapes and types (NEGRONI CATAACCHIO 1998; PACCIARELLI 2000; BARBARO 2010). Moreover, some of them considered only vases used for burials, that form a very restricted shape sample with predominantly decorated vessels (DOMANICO 1998; DE ANGELIS 2010). A first attempt to order data considering also kitchen ware was presented as a project, but only restricted to the Fiora and Albegna river valleys (NEGRONI CATAACCHIO *et alii* 1999). In addition, in Central Italy most of the kitchen and storage wares, forming the bulk of the assemblages, shows no significant changes throughout all the LBA (DAMIANI 2010, pp. 262-266) and even the Early Iron Age before the spreading of the potter's wheel; some shapes even remained unchanged all along the EBA-LBA, such as the barrel-shaped jars/mugs and the buckets (COCCHI 1998, pp. 334-345; COCCHI 2001, p. 81; DAMIANI 2010, p. 44). This is the reason why kitchen ware is never discussed in works oriented to disentangle chronological seriation.

About the diagnostic fine wares, according to Damiani's study (2010), a series of features marks a clear dividing line between RBA and FBA: the widespread presence of carinated bowls with flaring profile associated with strap handles decorated on top with plastic additions and the absence of biconical vases and of any decoration. It must be stressed, though, that a range of shapes crosses the time-border: bowls with sharp carination and everted side, open hemispherical bowls, and bowls with in-turned simple rim. According to other authors, decorations on pottery in the early period of FBA appear sporadically and only with very simple patterns (DOMANICO 1998).

Chronological studies previously quoted highlighted a list of shapes considered chronologically meaningful, based on the scarce well-defined stratigraphical contexts serving as a framework to which connect the vast body of pottery without a sound chronological base. These studies will be used as the base to frame the Montarana complex. The following table quote the Author's type names and in brackets Montarana catalogue number of pieces listed before.

Some shapes and decorations are out of chronological table: M39 (n. 126), M40 (n. 136). The pattern composition of n. 136 hints for its pertinence to the later FBA phases.

Barbaro's FBA chronology is flanked and largely supported by De Angelis' chronology based only on funerary assemblages, which suffer the shortcoming of having only the direct association of an urn jar – normally a biconical vase – and a bowl or cup as cover; only very late burials include more vessels (DE ANGELIS 2010). De Angelis' proposal is thus based on typological similarities, yet its general framework reflects Barbaro's scheme. De Angelis did not schematized shapes with number-letter names. From her subdivision we can borrow an attribution to FBA 1-2 of elements not quoted before: carinated cup (n. 40) with saddle shaped, horizontally pierced lug (nn. 12, 14); small jar with turban and band of horizontal grooves on the shoulder (n. 93).

ADDITIONAL COMPARISONS FROM SOUTHERN ETRURIA

Vases with inner ledge are common all along the Bronze Age, but the Montarana assemblage comprises both widespread and long-lasting simple cylindrical profiles (nn. 151, 1238), offset profiles, with parallels in late FBA context at Sorgenti Della Nova (NEGRONI 1995, fig. 145: 62) and flaring profiles that appear in MBA 1/2 complexes (COCCHI 2001, fig. 12: 35). To the same early horizon belongs also the larger vase n. 1237. (COCCHI 2001, fig. 12: 36, 37).

Two sherds (nn. 1420, 1464) hints for the presence of footed vessels that are a quite rare category. A connection might exist with the footed bowl from San Giovenale (Pohl 1975, pl. 10: A OHI 168).

¹³ Parallels can be traced e.g. at Vaccina (DAMIANI 2010, fig. 51: 10) and Cortine (DAMIANI 2010, figg. 9: 2, 10: 3, 16: 15; BARBARO *et alii* 2012 figg. 12: 6, 17: 7, 18: 2-4) where quite scanty incised Apennine-style sherds appear in totally RBA contexts.

¹⁴ As a response to present Author's request to refer that work, Ms. Adinolfi replied that her research is presently under publication (G. Adinolfi, personal communication, on 22 Oct. 2024).

¹⁵ S. Vitagliano reported the astounding collection delivered by Mr. Maurizio Mantovani to the Tarquinia National Museum in the year 2000 (VITAGLIANO 2021). The collection comprises 179 flint and stone tools beside a bone point. Most notable is the number of the arrow points, 21. The general outline of the affair is a bit unclear, but if confirmed by other researches the finding would be quite outstanding. According to A. Mandolesi, the findspot lies on the southwestern skirts of the hill (MANDOLESI 1999, p. 158).

Periods	Types (Montarana number)
EBA¹⁶ Cocchi's typology¹⁷	15B (820, 899), 17 (164), 22A (159), 23B (47), 24 (1271), 39 (48)
MBA 1/2 Cocchi's typology of the "Grotta Nuova" facies¹⁸	415-417 (820, 899), 272A (823), 308 (153), 309-311(120), 323 (828), 370-375 (105)
RBA Damiani's typology¹⁹	
Phases	
BR1A	16 (41), 43 (43), 63A (54), A25D (3), 120 A/B (192, 193), B16B (BR1)
BR1B	30A (1016), 41 (992), 129A (18)
BR1 A/B	1A (46, 85), 123 (191), 130 (123)
BR1-2	6B/C (633, 1267), 89D (40), B30 (6, 743)
BR2	10 (177), 20.1A (190, 1363), 102 (1404), 118BIS (BR2), 119B (590, 821), A23 (22, 135)
FBA Barbaro's typology²⁰	
Phases	
BF1-2	F7 (95), F20 ²¹ (93, 627, 1200), M53 (100)
BF1-2/2B – BF3A1	F2 (21-handle), "anfora a collo distinto a pareti rettilinee e ansa a colonnette" (699, lip with handle attachment and decoration), M111(94, decoration)
BF2B	-
BF1-2/2B – BF3A2	F21(52, 178)
BF1-2/2B – BF3B	"olletta a orlo rientrante" (92), M136 (68, 70)
BF3A1 – BF3A2	-
BF3A1 – BF3B	F13 (61, 73, 127), M75 (99, 125), M133(29, 700, 723), M176 (75), M180 (1200)
BF3A2	F24 (56 decoration)
BF3A2-3B	F22 (177)

Tab. 2. Diagnostic profiles from Montarana compared to types from typo-chronological series. Frammenti diagnostici da Montarana a confronto con le serie tipo-cronologiche di riferimento.

FINAL REMARKS

The pottery complex of Montarana served as "litmus paper" of the shortcomings implicit in chronological definition of surface sites based only on typology. Most sherds among the profiles considered as diagnostic belong to the vast class of the carinated cups that crosses the whole Bronze Age. The parallel comparisons here quoted for the bowls with thick out-turned lips just intend to highlight the same problem. The present Author chooses not to quote all the possible comparisons for the carinated profile group and limited them to the LBA because of the lack at Montarana of univocal chronological markers of the earlier phases, such as the long high-rising handles, the revoluted openwork handles, the thick lugs with side lobes, and the typical incised decorations. A feeble trace of the MBA 1/2 presence is hinted only by two sherds with strongly curved profile ad high neck (nn. 120, 153) recalling the "Grotta Nuova" style bowls (COCCHI 2001, nn. 308-315).

¹⁶ In the present Author's view, Early Bronze Age in Central Italy coincides with the Mezzano – Monte Castellaccio – Farneto - Protoappenninico *facies*, while the "Epicampaniforme" complexes represent the last Copper age period (PETITTI *et alii* 2012).

¹⁷ COCCHI 1998.

¹⁸ COCCHI 2001.

¹⁹ In her typology, Damiani tried to overcome the complexity of typologies based on more attributes having potentially equal value or meaning: body profile, body height, upper/lower body parts ratio, lip shape, handle presence/absence, and so on. In her words, her aim was: "passare da strutture rigide, basate su caratteri gerarchicamente predefiniti, ad altre più flessibili e non gerarchiche" (DAMIANI 2010, p. 4). This aim gave way to a complex numbering system, in two different series: on one side the vessels, on the other the handles that in RBA Subapennine style are considered meaningful for detailed distinctions in inner chronology and determination of production/trade areas (EADEM, pp. 447-460). Damiani used two different acronyms: numbers+letters for the profiles, letter+number for the handles.

²⁰ Barbaro gave a letter+number name to types, except for some of them, identified by full description. F is for shape, M for decorative motif.

²¹ Reference number in the table bears F22 instead of F20 (BARBARO 2010, p. 96 and fig. 34).

Turning to the role of Montarana in the wider scheme of the RBA-FBA site distribution, it can be stated that the pottery chronology supports the hypothesis that the settlement was occupied without break throughout the LBA but not until the very end of the Protovillanovan period. Support to this is the total lack of the pottery set defined in various works previously quoted as typical of the FBA last phase. In the Tarquinia district, this must be paralleled with what happens in the nearby sites of La Civita di Tarquinia to the East and Ferleta, few kilometers North (Fig. 1). La Civita, widely investigated by Mandolesi (1999), shows a clear absorption of the former smaller "Castellina della Civita" settlement into the wider Civita plain occupation, as a result of the evolution of the site into the Villanovan Tarquinia settlement. The same seems to happen to the Castello di Corneto site (MANDOLESI 1999, pp. 165-66). The occupation of Ferleta, on the other side, seems to have lasted until the very end of the FBA, with signs of the debuting Iron Age²², but its occupation ended little after, parallelizing the last days of Sorgenti della Nova²³. Topographical studies, devoted to trace the transformations in 2nd millennium BCE Southern Etruria, framed inside the few stratigraphical series available the vast collection of surface findings, with the help of the typo-chronological studies quoted before. These are the pillars supporting a social-evolutionary scheme widely relying on the settlement analysis which identified the progressive occupation growth of the territory, with a striking preference for high places dominating the surroundings, followed at the beginning of the Iron Age by a contraction of the sites number accompanied by the concentration of the dwellers in few major settlements (DI GENNARO 1986, 1988, 2000, 2010; PACCIARELLI 2000, pp. 72-73, 93-108; BIETTI SESTIERI 2010, pp. 231-233, 251-257; BARBARO 2010, pp. 27-35). Montarana, thus, would fit well this scheme as one of the contributors to the growth of Tarquinia - Civita, with an end possibly predating the last moments of the Final Bronze Age.

ACKNOWLEDGEMENTS

As reported before, the site underwent many surveys carried out by various researchers, but the sample discussed here all belongs to the Gruppo Archeologico Romano activity and this work represents only one step of the long route undertaken more than 50 years ago by a wide group of young, enthusiastic volunteers prompted by the deep will of knowing the land of their ancestors, sometimes recklessly and carefree, but always with a true feeling of participation to the protection and disclosure of their heritage²⁴. A thank is due to them, as to Flavia Trucco and Patrizia Petitti, archaeologist of the former Soprintendenza Archeologica per l'Etruria Meridionale, which supported my application for the study of the archeological materials here presented²⁵. An heartfelt thank goes to the students which participating the internship I held on Montarana undertook the painstaking work of marking all the pieces and filling the thousand entries of the related database²⁶. Other people helped me a lot in several tasks²⁷. Heartful thanks to Francesca Alhaique that quite rapidly gave her expertise to the determination of faunal remains. Finally, a special thank goes to Massimo Pennacchioni, who taught me how to trace a meaningful drawing from apparently anonymous pottery sherds.

APPENDIX: MONTARANA FAUNAL REMAINS COLLECTED IN 1970, 1984 AND 1987 (FRANCESCA ALHAIQUE)

The faunal sample collected on several occasions between 1970 and 1987 at Montarana (Tarquinia, VT) (Fig. 35) includes just over 100 finds (Tab. 3). Despite the fragmentation, the state of preservation is fair, and it was therefore possible to identify 44% of the remains at taxonomic level (NISP=48); 34.9% (NISP=38) were attributed to dimensional categories²⁸, while 21.1% (NISP=23) were completely indeterminable.

²² The present Author considers as belonging to Early Iron Age the vessels illustrated in CONTI 1986 tav. 4: 1, 4, 7, 8).

²³ The blurred line that separates (or better: connects) FBA and EIA pottery typology is well represented among the necropolis by the Montetosto Alto series, extensively documented in BARBARO 2010, pp. 273-301, and among the settlements by Monte Rovello (PACCIARELLI 2000, fig. 22) and Gran Carro (TAMBURINI 1995).

²⁴ Many of their names are gone with the wind, but I can remember here some who shared with me a stretch of that track and are the co-authors of the drawings presented here: Anna Maria Conti, Luciana Allegrezza, Daniela de Giovanni, Paolo Emilio Bagnoli, Andrea Campus, Rita Core, Luca D'Ascia, Gian Maria di Nocera, Maria Grazia Focolini, Matteo Minissi, Maria Luisa Paganelli, Massimo Pennacchioni, Guido Rapallini, Maria Tumminia.

²⁵ The application for the study of the Montarana pottery (Sovrintendenza ai Beni Culturali del Comune di Roma, prot. N. SS480, 7/2/2008) received a positive response from the Soprintendenza per i Beni Archeologici dell'Etruria Meridionale (prot. n. MBAC-SBA-EM n. MU 1550, 22/2/2008). The permission was extended to moving the items to the Sovrintendenza offices in Rome, so giving me the possibility to hold an internship there. The application was supported by Patrizia Gioia, who at that time oversaw the seat of Ufficio Scavi SDO, where the materials were stored.

²⁶ Andrea Alberto Catania, Annalisa Citoni, Beatrice Crescentini, Laura Matilde Magno, Ilenia Nardone, Martina Orlando, Andrea Santarelli, Federica Vacatello, Assunta Vinci, co-authors of some drawings.

²⁷ In particular Silvia Panti, Paola Bellagamba and Stefano Castellani for their invaluable help and meaningful contribution throughout the fulfillment of this work.

²⁸ For this study, ovicaprines, pigs, dogs and animals of similar size are considered medium-sized mammals; while cattle, equids and species of similar size are large mammals.

Among the mammals, the most frequent *taxon* in terms of number of remains are ovicaprines, among which the presence of sheep has been ascertained; for *Ovis vel Capra* at least two individuals have been identified: a young adult and an older adult. The second *taxon* is pig, whose remains belong to three different animals: a very young one, a young-adult and a senile. Cattle are in third place, with two individuals: a juvenile and an adult. A single fragment of the calcaneum attests to the presence of a dog of adult age (Fig. 35D). Reptiles are represented by a fragment of tortoise carapace. There are three mollusks, an indeterminate fragment and two valves of *Glycymeris* (Fig. 35A-B). Among the indeterminate mammal remains, the majority belongs to those of medium size, while large ones are less frequent, following the proportions among the identified species.

SPECIES	NISP	%	MNI	%
Mollusca	1	0.9	1	7.7
<i>Glycymeris</i> sp.	2	1.8	2	15.4
<i>Testudo hermanni</i>	1	0.9	2	15.4
<i>Canis familiaris</i>	1	0.9	1	7.7
<i>Sus domesticus</i>	15	13.8	3	23.1
<i>Ovis vel Capra</i>	16	14.7	2	15.4
<i>Ovis aries</i>	1	0.9		
<i>Bos taurus</i>	11	10.1	2	15.4
Medium size Mammals	30	27.5		
Large size Mammals	8	7.3		
Undetermined	23	21.1		
Total	109	100	13	100

Tab. 3. Montarana. Faunal sample (NISP=Number of Identified Specimens; MNI=Minimum Number of Individuals). - Campione faunistico (NISP=Numero di resti identificati; MNI=Numero Minimo di Individui).

The fragmentation of the finds did not allow detailed osteometric analyses, but most of the individuals were relatively small. For each of the most abundant species there are different parts of the skeleton, but the small size of the sample does not allow us to evaluate the actual frequency of the anatomical parts, which was however influenced not only by past human choices but also by the greater or lesser robusticity of the individual elements, or parts of them, which affected conservation.

The bone surfaces are often damaged by the action of the roots but, in some cases, it was possible to identify traces of human or animal activity on the finds. Cut marks were found on a bovine metacarpal near the proximal epiphysis linked to disarticulation (Fig. 35H). Just over 18% of the bones are burned, some of these even calcined; this alteration, being mostly widespread over the whole *specimen*, is not directly linked to cooking, but more probably to discarding the bones in the hearths or to accidental contact with fire. Traces of carnivore activity were documented on five finds (4.6%) (Fig. 35C), while gnaw marks by small rodents were identified on a single fragment (0.9%).

It is interesting to note that both valves of *Glycymeris* appear perforated at the umbo, but only in one of the two cases the opening seems to have been produced artificially, even if on both holes there are no traces of rounding on the margin which would suggest suspension (Fig. 35A); the edges of the two shells are blunted as if they were collected among beached elements, however it cannot be ruled out that they are Pliocene (and therefore relatively "fresh") fossils²⁹ recovered and possibly modified by ancient local dwellers.

The small sample of Montarana allows us to have only partial and general information on the local economy which was based on breeding, mainly ovicaprines and pigs and secondarily cattle. However, if meat yield is taken into account, the latter obviously comes first followed by pork and ovicaprines. Dogs were also present, as evidenced by one bone and the gnaw marks on the bones. The few determined ages of death do not allow us to formulate reliable hypotheses on the methods of exploitation of domestic animals even if it is probable that not only meat, but also live products (milk and wool) were the purpose of breeding. Even if there is a lack of clear evidence (cut marks, combustion), it cannot be ruled out that the tortoise was part of the diet, at least occasionally.

²⁹ See paragraph on Montarana geological setting.



Fig. 35. Montarana. Faunal remains, pebble and flint findings. A: beached *Glycimeris* shell artificially broken at the umbo; B: *Glycimeris* shell with natural hole at the umbo; C: ovicaprine femur with traces of gnawing; D: *Canis familiaris* calcaneum; E: natural pebble, possibly used as smoother; F: object with smoothed end; G: flint flakes; H: cattle metacarpal with cut-marks. Photos Carlo Persiani and Francesca Alhaique.

Faune, oggetti di pietra e selce. A: valva spiaggiata di *Glycimeris* con foro intenzionale all'umbo; B: valva di *Glycimeris* con foro naturale all'umbo; C: femore di ovicaprina con tracce di morsi; D: calcagno di *Canis familiaris*; E: ciottolo naturale, eventualmente utilizzato come lisciatoio; F: oggetto con estremità smussata; G: schegge di selce; H: metacarpo di bovino con segni di taglio. Foto Carlo Persiani e Francesca Alhaique.

APPENDIX 2 Montarana. *Pottery paste composition and color, surface treatment and color.*

Impasti e superfici dei frammenti.

ID	YEAR	SITE	CLAY	CLAY COLOR	SURFACE	SURFACE COLOR
1	1970	unknown	medium	dark brown	burnished	dark brown
3	1970	unknown	medium	black	polished	light brown
4	1970	unknown	medium	black	burnished	black
5	1970	unknown	medium	black	polished	black
6	1970	unknown	medium	black	burnished	dark brown
7	1970	unknown	medium	dark brown	burnished	medium brown
8	1970	unknown	coarse	black	rough	dark brown
9	1970	unknown	coarse	black	rough	medium brown
10	1970	unknown	coarse	dark brown	rough	dark brown
11	1970	unknown	coarse	black	burnished	black
12	1970	unknown	medium	dark brown	burnished	dark brown
13	1970	unknown	medium	dark brown	rough	dark brown
14	1970	unknown	coarse	medium brown	burnished	medium brown
15	1970	unknown	coarse	dark brown	burnished	medium brown
16	1970	unknown	medium	dark brown	burnished	dark brown
17	1970	unknown	coarse	black	rough	medium brown
18	1970	unknown	coarse	dark brown	rough	medium brown
19	1970	unknown	coarse	dark brown	rough	dark brown
20	1970	unknown	coarse	black	rough	medium brown
21	1970	unknown	medium	dark brown	burnished	medium brown
22	1970	unknown	coarse	medium brown	rough	medium brown
23	1970	unknown	medium	dark brown	burnished	dark brown
24	1970	unknown	coarse	dark brown	rough	dark brown
25	1970	unknown	coarse	black	rough	medium brown
26	1970	unknown	medium	black	burnished	black
27	1970	unknown	coarse	black	burnished	medium brown
28	1970	unknown	medium	black	burnished	dark brown
29	1970	unknown	coarse	black	rough	dark brown
30	1970	unknown	medium	reddish	rough	medium brown
31	1970	unknown	medium	black	polished	black
32	1970	unknown	coarse	black	burnished	dark brown
33	1970	unknown	medium	black	rough	medium brown
34	1970	unknown	medium	black	burnished	medium brown
35	1970	unknown	medium	black	burnished	dark brown
36	1970	unknown	medium	black	rough	medium brown
37	1970	unknown	coarse	black	burnished	medium brown
38	1970	unknown	medium	black	burnished	dark brown
39	1970	unknown	fine	black	burnished	medium brown
40	1970	unknown	medium	black	burnished	dark brown
41	1970	unknown	coarse	black	burnished	black
42	1970	unknown	coarse	black	burnished	medium brown
43	1970	unknown	coarse	black	burnished	black
44	1970	unknown	medium	black	burnished	medium brown
45	1970	unknown	coarse	dark brown	rough	dark brown
46	1970	unknown	medium	dark brown	burnished	dark brown
47	1970	unknown	medium	grey	polished	light brown
48	1970	unknown	medium	black	rough	dark brown
49	1970	unknown	fine	black	polished	black
50	1970	unknown	medium	black	burnished	dark brown
52	1970	unknown	medium	black	burnished	medium brown
53	1970	unknown	fine	reddish	burnished	dark brown
54	1970	unknown	coarse	black	burnished	medium brown
55	1970	unknown	medium	medium brown	burnished	dark brown
56	1970	unknown	medium	medium brown	rough	medium brown
57	1970	unknown	medium	black	rough	dark brown
58	1970	unknown	coarse	black	rough	black
59	1970	unknown	coarse	medium brown	burnished	medium brown
60	1970	unknown	coarse	black	burnished	medium brown
61	1970	unknown	fine	dark brown	burnished	dark brown
63	1970	unknown	coarse	black	burnished	light brown
64	1970	unknown	medium	black	burnished	medium brown
65	1970	unknown	medium	medium brown	burnished	medium brown
66	1970	unknown	medium	black	burnished	medium brown
67	1970	unknown	coarse	black	burnished	dark brown
68	1970	unknown	medium	black	burnished	black
69	1970	unknown	medium	wafer	polished	black
70	1970	unknown	fine	black	burnished	dark brown
73	1970	unknown	coarse	dark brown	polished	dark brown
75	1970	unknown	medium	black	burnished	black
76	1970	unknown	fine	black	burnished	dark brown
77	1970	unknown	medium	black	burnished	dark brown
78	1970	unknown	medium	black	rough	black
79	1970	unknown	medium	dark brown	burnished	dark brown
80	1970	unknown	medium	black	burnished	medium brown
82	1970	unknown	coarse	black	rough	light brown
83	1970	unknown	coarse	black	rough	black

85	1970	unknown	medium	dark brown	burnished	dark brown
88	1970	unknown	medium	black	rough	black
89	1970	unknown	medium	black	rough	black
90	1970	unknown	coarse	black	rough	medium brown
91	1970	unknown	coarse	black	rough	medium brown
92	1970	unknown	medium	black	burnished	black
93	1970	unknown	medium	black	burnished	dark brown
94	1970	unknown	fine	medium brown	rough	medium brown
95	1970	unknown	medium	black	burnished	black
96	1970	unknown	coarse	black	rough	medium brown
98	1970	unknown	medium	medium brown	polished	medium brown
99	1970	unknown	medium	black	rough	medium brown
100	1970	unknown	medium	dark brown	rough	dark brown
101	1970	unknown	medium	medium brown	polished	medium brown
102	1970	unknown	medium	black	burnished	medium brown
103	1980	North	coarse	black	polished	dark brown
104	1980	North	coarse	dark brown	burnished	dark brown
105	1980	North	coarse	black	burnished	medium brown
107	1980	North	medium	black	burnished	medium brown
108	1980	North	medium	dark brown	burnished	black
109	1980	North	medium	black	burnished	black
110	1980	North	medium	black	burnished	dark brown
114	1980	North	medium	black	burnished	dark brown
115	1980	North	medium	reddish	rough	medium brown
116	1980	North	coarse	black	burnished	medium brown
117	1980	North	coarse	dark brown	rough	dark brown
118	1980	North	coarse	black	rough	reddish
120	1980	North	medium	black	burnished	black
122	1980	North	coarse	black	rough	black
123	1980	North	medium	grey	rough	medium brown
124	1980	North	medium	black	burnished	dark brown
125	1980	North	medium	black	burnished	medium brown
126	1970	unknown	fine	medium brown	burnished	dark brown
127	1980	West	medium	dark brown	polished	dark brown
128	1980	West	medium	dark brown	rough	medium brown
129	1980	West	medium	black	rough	black
130	1980	West	medium	black	rough	dark brown
131	1980	West	medium	dark brown	burnished	medium brown
132	1980	West	medium	black	rough	grey
133	1980	North	coarse	dark brown	rough	light brown
134	1980	North	coarse	black	rough	black
135	1980	North	medium	dark brown	rough	light brown
136	1980	North	medium	dark brown	rough	medium brown
138	1980	North	medium	dark brown	burnished	medium brown
139	1980	North	medium	black	rough	dark brown
140	1980	North	medium	black	rough	medium brown
141	1970	unknown	medium	reddish	burnished	light brown
145	1970	unknown	medium	medium brown	rough	medium brown
146	1970	unknown	medium	light brown	rough	light brown
151	1970	unknown	medium	black	rough	medium brown
152	1970	unknown	medium	black	burnished	medium brown
153	1970	unknown	medium	light brown	burnished	light brown
154	1970	unknown	medium	medium brown	burnished	medium brown
156	1980	South	medium	medium brown	burnished	medium brown
159	1970	unknown	medium	black	burnished	medium brown
160	1970	unknown	medium	black	burnished	black
161	1970	unknown	medium	medium brown	rough	medium brown
162	1970	unknown	coarse	medium brown	rough	medium brown
164	1970	unknown	medium	medium brown	rough	medium brown
170	1970	unknown	medium	dark brown	polished	dark brown
171	1970	unknown	medium	black	rough	medium brown
175	1980	South	medium	black	burnished	dark brown
176	1970	unknown	medium	dark brown	burnished	dark brown
177	1970	unknown	medium	dark brown	burnished	dark brown
178	1970	unknown	coarse	dark brown	burnished	dark brown
179	1970	unknown	coarse	dark brown	rough	medium brown
180	1970	unknown	coarse	dark brown	rough	medium brown
181	1970	unknown	coarse	grey	rough	medium brown
182	1970	unknown	medium	black	burnished	medium brown
186	1970	unknown	medium	black	rough	dark brown
187	1970	unknown	medium	dark brown	rough	medium brown
190	1970	unknown	medium	dark brown	burnished	dark brown
191	1970	unknown	coarse	black	burnished	black
192	1970	unknown	medium	black	rough	dark brown
193	1970	unknown	medium	black	rough	medium brown
198	1980	North	coarse	light brown	rough	light brown
199	1970	unknown	medium	dark brown	burnished	dark brown
201	1970	unknown	coarse	black	burnished	medium brown
304	1970	unknown	coarse	black	burnished	medium brown
359	1970	unknown	medium	black	rough	medium brown
362	1970	unknown	coarse	black	rough	medium brown

366	1970	unknown	medium	black	rough	dark brown
368	1970	unknown	medium	dark brown	rough	medium brown
388	1970	unknown	coarse	dark brown	burnished	medium brown
410	1970	unknown	coarse	dark brown	rough	medium brown
411	1970	unknown	medium	dark brown	burnished	dark brown
414	1970	unknown	medium	dark brown	polished	dark brown
415	1970	unknown	coarse	medium brown	rough	dark brown
421	1970	unknown	medium	black	rough	medium brown
428	1970	unknown	medium	black	polished	dark brown
436	1970	unknown	medium	black	burnished	black
450	1970	unknown	medium	black	rough	medium brown
470	1980	North	coarse	black	burnished	medium brown
555	1970	unknown	medium	black	rough	medium brown
577	1970	unknown	coarse	dark brown	rough	medium brown
578	1970	unknown	coarse	wafer	rough	dark brown
581	1970	unknown	medium	black	rough	dark brown
586	1980	South	coarse	dark brown	rough	light brown
590	1970	unknown	medium	black	rough	medium brown
614	1970	unknown	medium	medium brown	polished	light brown
626	1970	unknown	medium	black	rough	medium brown
627	1970	unknown	medium	black	polished	black
629	1970	unknown	medium	dark brown	rough	medium brown
632	1970	unknown	medium	black	polished	medium brown
633	1987	South	medium	dark brown	burnished	medium brown
635	1970	unknown	coarse	black	burnished	dark brown
636	1987	South	medium	black	rough	black
637	1980	West	medium	black	burnished	medium brown
639	1970	unknown	medium	black	burnished	dark brown
642	1970	unknown	medium	black	burnished	dark brown
644	1980	East	medium	black	rough	light brown
654	1970	unknown	medium	black	burnished	dark brown
655	1970	unknown	coarse	black	burnished	medium brown
668	1970	unknown	coarse	black	rough	dark brown
670	1970	unknown	medium	dark brown	burnished	medium brown
682	1980	North	coarse	black	rough	light brown
689	1970	unknown	medium	black	burnished	medium brown
690	1970	unknown	medium	black	burnished	light brown
692	1970	unknown	fine	black	polished	dark brown
699	1980	South	medium	black	burnished	medium brown
700	1970	unknown	medium	black	burnished	black
733	1970	unknown	medium	dark brown	rough	medium brown
734	1970	unknown	coarse	medium brown	rough	medium brown
740	1970	unknown	coarse	light brown	rough	light brown
743	1970	unknown	coarse	dark brown	burnished	medium brown
814	1970	unknown	coarse	black	rough	dark brown
815	1970	unknown	fine	black	rough	dark brown
816	1970	unknown	fine	black	polished	black
817	1970	unknown	coarse	black	polished	grey
818	1970	unknown	coarse	reddish	burnished	reddish
819	1987	South	coarse	reddish	burnished	reddish
820	1987	South	medium	dark brown	polished	black
821	1987	South	medium	black	polished	black
822	1987	unknown	medium	black	rough	medium brown
823	1970	unknown	medium	black	burnished	dark brown
825	1970	unknown	medium	black	burnished	medium brown
828	1987	South	medium	medium brown	burnished	medium brown
847	1970	unknown	medium	dark brown	burnished	medium brown
848	1970	unknown	fine	black	burnished	dark brown
850	1970	unknown	fine	medium brown	polished	black
852	1980	North	coarse	black	rough	dark brown
854	1970	unknown	coarse	black	rough	medium brown
865	1980	South	medium	reddish	rough	light brown
894	1970	unknown	coarse	black	rough	dark brown
895	1970	unknown	medium	black	polished	medium brown
896	1970	unknown	medium	dark brown	burnished	dark brown
899	1970	unknown	medium	dark brown	rough	dark brown
902	1970	unknown	fine	black	burnished	dark brown
912	1970	unknown	medium	dark brown	polished	light brown
917	1970	unknown	medium	dark brown	polished	dark brown
989	1970	unknown	medium	black	polished	medium brown
992	1970	unknown	medium	black	burnished	light brown
995	1970	unknown	medium	black	burnished	dark brown
996	1970	unknown	coarse	medium brown	burnished	medium brown
999	1970	unknown	medium	dark brown	burnished	dark brown
1000	1970	unknown	medium	black	burnished	dark brown
1006	1970	unknown	coarse	black	burnished	medium brown
1016	1970	unknown	medium	dark brown	burnished	black
1037	1970	unknown	medium	black	burnished	medium brown
1043	1970	unknown	medium	reddish	burnished	medium brown
1069	1970	unknown	coarse	reddish	rough	medium brown
1070	1970	unknown	medium	reddish	burnished	light brown

1077	1970	unknown	medium	medium brown	burnished	medium brown
1200	1987	unknown	medium	black	burnished	medium brown
1201	1987	South	coarse	grey	burnished	medium brown
1202	1987	South	medium	black	burnished	medium brown
1209	1987	unknown	coarse	black	rough	reddish
1214	1987	unknown	coarse	reddish	rough	reddish
1237	1987	South	coarse	medium brown	burnished	medium brown
1238	1987	unknown	coarse	grey	burnished	dark brown
1239	1987	South	medium	black	rough	medium brown
1250	1987	South	coarse	dark brown	rough	dark brown
1251	1987	South	medium	black	rough	medium brown
1267	1987	South	medium	black	rough	medium brown
1270	1987	unknown	medium	black	rough	black
1271	1987	South	coarse	black	burnished	dark brown
1310	1987	unknown	medium	black	polished	black
1321	1987	South	coarse	black	rough	light brown
1344	1987	South	coarse	light brown	rough	reddish
1345	1987	unknown	coarse	reddish	rough	light brown
1353	1987	South	medium	black	polished	dark brown
1355	1987	unknown	medium	reddish	burnished	light brown
1356	1987	South	medium	black	rough	black
1363	1987	unknown	medium	grey	burnished	medium brown
1364	1987	South	coarse	medium brown	rough	medium brown
1402	1980	East	medium	black	burnished	dark brown
1404	1970	unknown	medium	wafer	burnished	dark brown
1413	1970	unknown	medium	black	burnished	dark brown
1420	1970	unknown	medium	black	rough	medium brown
1421	1987	South	medium	black	burnished	dark brown
1424	1970	unknown	coarse	black	rough	dark brown
1464	1970	unknown	medium	black	rough	medium brown

REFERENCES

- ALESSANDRI L. 2009, *Il Lazio centromeridionale nelle età del Bronzo e del Ferro*. Groningen.
- ANZIDEI A. P., CARBONI G., eds., 2020, *Roma prima del mito*, 2, Archaeopress.
- ARCANGELI L., PELLEGRINI E., POGGESI G. 2002, *L'insediamento sommerso dell'età del bronzo finale di Punta degli Stretti nella laguna di Orbetello (GR)*. Atti del IV Convegno di Preistoria e Protostoria in Etruria, 2000. Firenze: Octavo, pp. 133-143.
- BARBARO B. 2010, *Insedimenti, aree funerarie ed entità territoriali in Etruria meridionale nel Bronzo finale*. Firenze: All'Insegna del Giglio.
- BARBARO B., BETTELLI M., DAMIANI I., DE ANGELIS D., MINNITI C., TRUCCO F. 2012, *Etruria meridionale e Mediterraneo nella tarda età del bronzo*, in BELLELLI V., eds., *Le origini degli Etruschi Storia Archeologia Antropologia*, pp. 195-248.
- BERGGREN E., BERGGREN K. 1980, *San Giovenale Vol. III Fasc. 1. The Iron Age test square in the North-east part of area D*, Stockholm.
- BERGGREN E., BERGGREN K. 1981, *San Giovenale Vol. II Fasc. 2. Excavations in Area B, 1957-1960*, Stockholm.
- BIETTI SESTIERI A. M. 2008, *L'età del Bronzo finale nella penisola italiana, Padusa*, XLIV, pp. 7-54.
- BIETTI SESTIERI A. M. 2010, *L'Italia nell'età del Bronzo e del Ferro*. Roma: Carocci.
- BONADONNA F. P. 1967, *Studi sul Pleistocene del Lazio. Linee di costa lungo il litorale di Tarquinia (Lazio settentrionale)*, Geologica Romana, VI, pp. 121-135.
- CAZZELLA A., MOSCOLONI M. 1999, *Conelle di Arcevia. Un insediamento eneolitico nelle Marche - I Lo scavo, la terracotta, i manufatti metallici, i resti organici*. Roma: Gangemi Editore.
- COCCHI D., eds., 1995, *Aspetti culturali della media età del bronzo nell'Italia centro-meridionale*. Firenze: Octavo.
- COCCHI D. 1998, *L'antica età del bronzo nell'Italia centrale*, Firenze: Octavo.
- COCCHI D. 2001, *Classificazione tipologica e processi storici. Le ceramiche della facies di Grotta Nuova*, Firenze: Octavo.
- CONTI A. M. 1986a, *La valle del fiume Marta nell'età del bronzo*, Bollettino della Società Tarquiniese di Arte e Storia, XV, pp. 95-104.
- CONTI A. M. 1986b, *La Ferleta: un insediamento dell'età del Bronzo a Tarquinia*, Ricognizioni Archeologiche, 2. Gruppo Archeologico Romano: Roma, pp. 14-24.
- CONTI A. M., PERSIANI C. 2004, *La Montarana di Tarquinia, un sito dell'età del bronzo tra indagini archeologiche e tutela*. Atti del VI Convegno di Preistoria e Protostoria in Etruria, 2002, pp. 539-547.
- DAMIANI I. 2010, *L'età del Bronzo recente nell'Italia centro-meridionale*, Firenze: All'Insegna del Giglio.
- DAMIANI I., PETITTI P., TRUCCO F. 2010, *Aspetti cronologici e primo inquadramento del villaggio sommerso di Sposetta nel lago di Bracciano*. Atti del IX Convegno di Preistoria e Protostoria in Etruria (Valentano – Pitigliano 2008). Firenze: Octavo, pp. 685-696.
- DE ANGELIS S. 2010, *L'inquadramento cronologico dei complessi funerari del Bronzo finale in Etruria meridionale*, in BARBARO 2010, pp.107-112.
- DI GENNARO F. 1986, *Forme di insediamento tra Tevere e Fiora dal Bronzo Finale al principio dell'età del ferro*, Istituto di Studi Etruschi ed Italici, Biblioteca di «Studi Etruschi», 14. Firenze: Olschki editore.
- DI GENNARO F. 1988, *Il popolamento dell'Etruria meridionale e le caratteristiche degli insediamenti tra l'età del bronzo e l'età del ferro*, in *Etruria Meridionale. Conoscenza, conservazione e fruizione*. Atti del Convegno, Viterbo, pp. 59-82.
- DI GENNARO F. 2000, *Paesaggi di Potere: l'Etruria meridionale in età protostorica*, in *Paesaggi di Potere: problemi e prospettive*. Atti del Seminario (Udine, 16-17 maggio 1996), pp. 95-119.
- DI GENNARO F. 2010, Introduzione, in BARBARO 2010, pp. 13-16.
- DOMANICO L. 1998, *Analisi degli indicatori cronologici dalle necropoli del Bronzo finale in Etruria*. Atti del III Convegno di Preistoria e Protostoria in Etruria (Farnese – Manciano – Montalto di Castro 1995 – 1996). Firenze: Octavo, pp. 53-78.
- GAMURRINI G. F., COZZA A., PASQUI A., MENGARELLI R. 1972, *Carta archeologica d'Italia (1881-1897). Materiali per l'Etruria e la Sabina*. Forma Italiae, Serie II, Documenti, 1. Firenze: Olschki editore.
- KARLSSON L. 2006, *San Giovenale, Vol. IV Fasc. 1. Area F East huts and houses on the Acropolis*, Stockholm.
- MANFREDINI A., eds., 2002, *Le dune, il lago il mare: una comunità di villaggio dell'età del Rame a Maccarese*. Firenze: Origines.
- MANDOLESI A. 1999, *La "Prima" Tarquinia*. Firenze: All'Insegna del Giglio.
- MANDOLESI A., PELFER G. 2002, *Rapporto fra insediamento ed evoluzione delle lagune nel litorale di Tarquinia dall'epoca protostorica al periodo romano contemporaneo alla via Aurelia costiera*. Atti del V Incontro di Preistoria e Protostoria in Etruria, 2000. Firenze: Octavo, pp. 193-202.
- NEGRONI CATAACCHIO N. 1998, *Proposta di una scansione cronologica del Bronzo Finale nel territorio tra Fiora e Albegna*. Atti del III Convegno di Preistoria e Protostoria in Etruria (Farnese – Manciano – Montalto di Castro 1995 – 1996). Firenze: Octavo, pp. 79-91.
- NEGRONI CATAACCHIO N., CARDOSA M., DOMANICO L. 1999, *8. Il Bronzo Finale nelle valli del Fiora e dell'Albegna*, in COCCHI GENICK D., eds., *Criteri di nomenclatura e di terminologia inerente alla definizione delle forme vascolari del Neolitico/Eneolitico e del Bronzo/Ferro*. Atti del Congresso di Lido di Camaiore, 26-29 Marzo 1998. Firenze: Octavo, pp. 429-439.
- PACCIARELLI M., 2000, *Dal villaggio alla città. La svolta protourbana del 1000 a.C. nell'Italia tirrenica*. Firenze: All'Insegna del Giglio.

- PELFFER G., 2002, *Il paleoambiente lagunare di Tarquinia*. Atti del V Convegno di Preistoria e Protostoria in Etruria, 2000. Firenze: Octavo, pp. 203-209.
- PENNACCHIONI M., PERSIANI C. 1980, Tarquinia (Viterbo), *L'insediamento preistorico della Montarana*, Studi Etruschi 48, pp. 537-538.
- PENNACCHIONI M., PERSIANI C. 1982, *L'insediamento preistorico della Montarana*. Atti del IV Convegno dei Gruppi Archeologici del Lazio, Rieti 1979. Roma: GAR, pp. 17-22.
- PERSIANI C., in print: Montarana (Tarquinia - VT), *Bronzo recente e finale. Analisi quantitativa dei ritrovamenti di superficie*. Atti del XVII Convegno di Preistoria e Protostoria in Etruria, Bolsena-Saturnia 2024.
- PETITTI P., PERSIANI C., CONTI A. M. 2012, *Il passaggio dall'Eneolitico all'età del bronzo sul versante medio-tirrenico della penisola italiana. Problemi e prospettive*. Atti del X Incontro di Preistoria e Protostoria in Etruria, Valentano - Pitigliano 2010. Milano: Centro Studi di Preistoria e Archeologia, pp. 299-327.
- SCHIAPPELLI A. 2008, *Sviluppo storico della Teverina nell'età del bronzo e nella prima età del ferro*, Firenze: All'Insegna del Giglio.
- TRUCCO F. 2007, *Montarana*, in BELARDELLI C., ANGLE M., DI GENNARO F., TRUCCO F. eds., *Repertorio dei siti protostorici del Lazio, Province di Roma, Viterbo e Frosinone*. Firenze: All'Insegna del Giglio, p. 318.
- TAMBURINI P. 1995, *Un abitato villanoviano perilacustre. Il "Gran Carro" sul lago di Bolsena (1959-1985)*, Archaeologica, 113. Roma: Bretschneider Editore.
- VITAGLIANO S. 2021, *Le pecorelle della Montarana*, in *Preistoria del cibo: l'alimentazione nella preistoria e nella protostoria*, Studi di Preistoria e Protostoria Italiana 6, Firenze, Istituto Italiano di Preistoria e Protostoria. pp. 9-43.