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## Fabrics and archaeological facies in northern Italy: An integrated approach to technological and stylistic choices in Bronze Age pottery production

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#### ABSTRACT

A tradition of pottery production is well-attested in northern and central Italy during the Middle and Recent Bronze Ages (17–12th century BCE). In order to characterise that pottery production, this paper presents a synthesis of available archaeometrical data. Petrographic, mineralogical (X-ray powder diffraction; XRPD) and chemical analyses (X-ray fluorescence spectroscopy; XRF) were compiled from Emilia, Romagna, southern Veneto and northern Tuscany. Four hundred vessels from 21 sites were analysed, of which 147 are presented here for the first time. From Emilia, characterised by Terramare facies, 20 regional fabric groups, based on temper composition and general production trends, were defined from the surrounding area. The raw materials used for paste preparation clearly reflected the different geological and cultural contexts and were in accordance with local production. In contrast, an exchange of products, styles and craftsmen was visible in the Po Valley and Tuscany. The results of this investigation indicate that the archaeological facies in northern Italy during the middle phases of the Bronze Age were different not only stylistically but also in terms of technological choices and traditions.

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#### 1. Introduction

The archaeological characteristics (facies) of different Middle and Recent Bronze Age cultures in northern and central Italy are reflected

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in the local repertoire of ceramic vessel shape and decoration. For example, Terramare facies are predominant in the Po Valley (Cardarelli, 2009; Bernabò Brea et al., 1997), while across the central peninsula Protoapennine, Grotta Nuova, Apennine and Subapennine facies can be seen (Bietti Sestieri, 2013; Peroni, 1997a, 1997b). Those sites close to the borders share some characteristics from both cultural areas.

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The first phase of the Middle Bronze Age (MBA1) marked the beginning of the occupation of the Po Valley, with the presence of small, partially structured sites spread over a wide area (Vanzetti, 2013). According to radiocarbon dates (using 1 normalised probability) from Terramare sites, MBA1 spans from 1670 to 1650 to 1580 BCE, and MBA2 from 1580 to 1480-1460 BCE (Vanzetti, 2013). MBA3 is placed between 1450 and 1340–1330 BCE, and the Late Bronze Age (LBA) spans from 1330 to 1170 BCE (Whitehouse, 1997). MBA2 saw the complete colonisation of the Po Valley, with the presence of micro-districts formed of one or two 'major' centres and some 'minor' settlements (Cardarelli, 2009). The transition phase from MBA2 to MBA3 is characterised throughout the Terramare area by a marked discontinuity in settlement pattern; the homogeneous organisation of the territory changes to a different model in which larger centres and their satellites can be recognised (Cardarelli, 2009). This phenomenon can also be seen between the end of MBA3 and the RBA, during which time the area occupied by the Terramare reached its peak of demographic pressure (Cardarelli, 2009). During this apex in the RBA, the Terramare people were affected by a serious crisis that caused their subsequent disappearance. Archaeological evidence suggests that this collapse was the result of demographic, climatic and environmental factors combined with social and political ones (Cardarelli, 2009). The climatic conditions in Europe and in Mediterranean underwent a rather rapid change from the first half of the 12th century BCE onwards, corresponding with the beginning of the second ice-rafted debris (IRD) event (Moody, 2005). This change was so drastic it resulted in significant transformations at historical and political levels (Moody, 2005).

Traditional Italian Bronze Age pottery is defined as impasto: handmade from coarse raw materials (Cocchi Genick, 1999; Levi, 1999, 2010), technologically comparable with the handmade burnished HBW (Hand Made Burnished Ware) pottery of the eastern Mediterranean (Bettelli, 2009). The production of protohistoric impasto pottery is generally well standardised, with frequent use of the same tempers; other general tendencies can also be recognised. During the Bronze

Age, a general decrease in the use of calcite as a temper is seen, as is an increasing standardisation that manifests itself mainly from the Recent Bronze Age onwards. This phenomenon is linked to the development of the production technology (Levi and Muntoni, 2014). During Italian protohistory, the circulation of pottery and potters is attested, the former involving mainly storage and transport vessels, as seen in southern Italy (Levi, 1999; Levi et al., 1999). The best example of the movement of craftsmen is represented by the appearance of the wheel technique in southern Italy during the MBA (Jones et al., 2014; Levi and Muntoni, 2014), an effect of the arrival of Aegean potters. Until this time, vessels had been exclusively handmade.

The main distinguishing features of the north-central peninsula can be summarised as follows. (i) Terramare vessels (MBA, RBA) are decorated with geometrical impressions. Handles are commonly large and very complex with ribbon/horn shapes, used as a chronological marker. (ii) Apennine pottery (MBA3) is decorated with complex incised or excised geometrical patterns: meanders, spirals, triangular patterns and zig-zags. (iii) Subapennine pottery (RBA) is undecorated but with a great variety of handles with stylised horns and birds.

Local production of wheelmade and painted Italo-Mycenaean (and possibly eastern Mediterranean) pottery is also seen in Veneto during the Recent and Final Bronze Age (FBA, 12th–11th c. BCE) (Jenkins et al., 1999; Jones et al., 2002, 2014).

The aim of this study was to analyse the composition of MBA and RBA pottery in northern Italy in order to correlate the composition of ceramic pastes with the cultural facies, defined by pottery shape and decoration. On the basis of ethnographic models, Rice (1984) and Van der Leeuw (1984) have defined different production and social organisations relative to the manufacturing processes. This study reconsiders the two models, domestic and workshop, generally proposed for the production of HBW pottery during Italian protohistory (Levi, 1999, 2010). In particular, this study attempts to identify the raw materials employed in the area of Modena (Figs. 1 and 2a), in the region of Emilia on the northern side of the Apennine chain. The principal aim was to

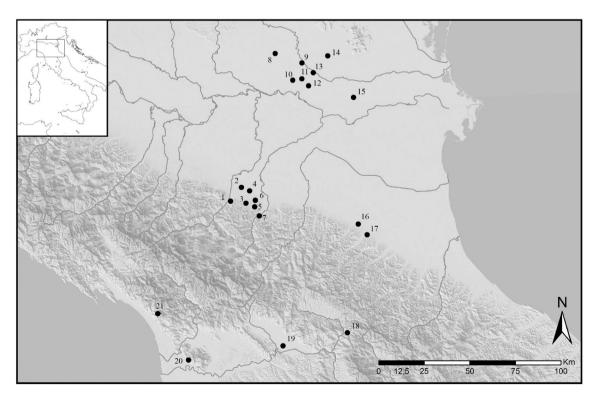


Fig. 1. Sites considered in this study and borders of the typical Terramare facies (including Modena sites) and the surrounding area. Emilia (Modena): 1. Pontenuovo, 2. Casinalbo, 3. Gorzano, 4. Montale, 5. Cà de Monesi, 6. Montebarello, 7. Castiglione di Marano. Veneto (Valli Gandi Veronesi): 8. Bovolone, 9. Terranegra, 10. Castello del Tartaro, 11. Fondo Paviani, 12. Fabbrica dei Soci, 13. Lovara, 14. Montagnana, 15. Frattesina. Romagna (Imola): 16. Monte San Giuliano, 17. Monte Castellaccio. Northern Tuscany: 18. Dicomano, 19. Filettole, 20. Riparo La Romita, 21. Riparo dell'Ambra (drawing by Andrea Di Renzoni).

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