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Production and trade of pottery in the so-called "South Coast" fabric in Bronze Age Crete. Current interpretations and recent findings at Malia, northern Lassithi ☆

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Highlights

- The so-called "South Coast fabric" (SCF) is buff with ophiolitic sand inclusions.
- The SCF terminology derives from archaeological and petrological findings at Myrtos.
- The SCF is a fairly common component of Bronze Age pottery assemblages in Crete.
- At Malia, northeastern Crete, pottery in SCF is common during MM II and LM IIIB.
- Claybeds at Chersonissos were exploited for regional pottery production in SCF.

Abstract

This paper provides an update on occurrence patterns and mineral composition of pottery in the so-called “South Coast” fabric, a fabric with a self-explanatory provenance ascription that is characterized by a buff matrix and coarse water-worn ophiolitic sand inclusions. Based on the collation of published data supplemented by new geological, petrographic, and archaeological results, this paper offers evidence for pottery production in a similar fabric in northeastern Crete, most probably around the site(s) of Malia and/or Chersonissos, during at least Middle Minoan II and Late Minoan III. These results provide new perspectives on an archaeological problem related to the hitherto assumed importance of the site of Myrtos, on the southeastern coast of Crete, in the production and trade of such pottery. They stress the importance of thorough geological fieldwork involving sediment sampling, while also calling for caution regarding some interpretations of pottery technology that can be inferred from textural and mineralogical properties of the fabrics analyzed in thin section.

Introduction

In Minoan Archaeology, the so-called “South Coast fabric” often appears in published reports on the petrographic analysis of pottery assemblages. In most cases, this fabric consists of a fine buff clay and coarse water-worn sand inclusions derived from the ophiolite-bearing ‘mélange’[1] (e.g. Poursat and Knappett, 2005, 21–23; Molloy et al., 2014, 377; Nodarou, 2015a, 67). It was first identified as one variant of a “pottery tradition” identified on stylistic and petrographic grounds at the early Bronze Age site of Myrtos Fournou Koriphi (Whitelaw et al., 1997). This site is located near ophiolitic outcrops on the southeastern coast of Crete (Fig. 1), and has provided archaeological evidence for pottery production activity during Early Minoan II.

Nevertheless, several problems confront the “South Coast fabric” terminology and its use in pottery studies. Several results published in the field of ceramic petrology have started questioning the extent to which pottery with these petrographic characteristics should be ascribed provenance to the region of Myrtos (e.g. Day and Jones, 1991: 96; Ben-Shlomo et al., 2011: 342–343; Liard, 2015). Furthermore, geological studies and sediment analyses point to the relatively widespread occurrence of various kinds of ophiolite-rich sand deposits in Crete, and in several cases those appear to have been used in pottery production during the Bronze Age (Liard et al., in press). In particular, an ophiolite-bearing buff fabric has been detected so far as one of the main components of Middle and Late Bronze Age pottery assemblages at Malia, an important Minoan settlement that was located on the northeastern coast of the island, 7 km to the east of some ophiolitic clayey sediment deposits.

This paper offers a critical appraisal of the data so far published on the “South Coast” pottery fabrics in Bronze Age Crete, with particular attention to discoveries in northeastern Crete. It presents new petrographic, archaeological, and geological evidence that strongly suggests that a fabric of similar mineralogical and textural appearance to the coarse buff “South Coast fabric” of Myrtos was also being produced at, or near, the site of Malia. These results stress the need to reassess patterns of pottery production and trade in Bronze Age Crete, which ultimately have an

implication on the reconstruction of intra- and inter-regional relations, economic organization, and the political geography of the island.

Section snippets

The “South Coast” pottery fabric in the Cretan Bronze Age: an outline

In the original sense defined by Whitelaw and colleagues, the “South Coast” terminology applies to a “pottery tradition” which involves specific typological and stylistic characteristics of the pottery, and includes three petrographic variants; namely, a non-calcareous fabric containing angular rock fragments, and fine and coarse variants of a medium to highly calcareous clay, tempered with well-rounded, water-worn sand (Whitelaw et al., 1997: 269–270). It seems, however, that this term is

Case-study: the Bronze Age site of Malia

The Bronze Age settlement of Malia is located on the northeastern coast of Crete, in a fertile terra rossa valley belted by the foothills of the Lassithi Mountains. It also lies at the crossroads of important maritime and land routes of exchange that connected north-central and eastern Crete with the rest of the Aegean region during the Bronze Age (Driessen, 2009: 20–21). The contribution of the site to Minoan archaeology is substantial, and both the patterns of its occupation and the local

Materials and methods

In order to demonstrate that pottery in a “South Coast fabric” was produced in northeastern Crete during at least MM II and LM IIIB, published data on the geology and Bronze Age pottery fabrics of Malia and Myrtos is collated, and compared with original results obtained from geological fieldwork and from petrographic analysis of sediment and archaeological pottery samples.

Published data pertaining to distribution patterns of a buff ophiolitic fabric among pottery assemblages at Malia is

Fabric distribution patterns (Table 3)[7]

At least from the late Protopalatial (MM IIB) to the Postpalatial period (LM IIIB), red clays that naturally contain quartz and phyllite inclusions were extracted from alluvial terraces at Sissi, and used in pottery production. Such fabrics appear among vessels linked with the preparation and

cooking of food, and with the storage, service, and consumption of liquids and other substances. This pottery was consumed both at Malia and at Sissi.[8]

Conclusion

This paper has provided geological and petrographic evidence for the existence of raw materials necessary for the production of buff ophiolitic pottery at Chersonissos, on the north-central coast of Crete. Several petrological, archaeological, and historical elements have been presented in support of the exploitation of these sediments in pottery production in northeastern Crete. The analysis also pointed out that although the petrographic characteristics of the ophiolitic pottery deriving from

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