

## Compositional classes and diversity in archaeological ceramic studies

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Archaeological studies are based, at a large extent, on the study of the materials that form the different unearthed assemblages. Thus, ceramic assemblages are defined by their compositions, i.e. how many pots of different types do we have. Those assemblages, are supposed to shed light on chronological issues, as well as on social issues related to the social context after which they were formed. Therefore, one of the key problems in Archaeology is the formation of the archaeological record, since any study based on the unearthed evidence will be thus necessarily conditioned.

Pottery, as many other types of artefacts, rarely appears as complete vases. The activity in the systemic context (in the living societies of the past), and the activity in the archaeological one usually leads to incomplete vessels, represented by an unknown number of isolated shards. Several strategies have been proposed to overcome these problems, and they are collectively known as quantification studies (Orton, 1993). In such studies, reassembly of shards is conducted up to different extents. Besides, different principles are assumed in different quantification methods. Even so, especially in studies not devoted to pottery, some criticism have been made on the concept of taxonomical abundance, which guides quantification studies, highlighting the underpinning role of taphonomical issues (Lyman, 2004). Moreover, individuals and assemblages are in the basis of any archaeometric study, and sampling is the most crucial derived issue (Orton, 2000).

Identification of individuals, understanding of assemblages, and sampling for archaeometric studies should be based on the collaborative work of archaeologists and archaeometrists. However, a fully development of these issues does not seem to be generally conducted. Sampling can then be biased from the beginning, and studies on observed diversity, i.e. on richness and uniformity (Magurran, 2004), of the assemblages are ill-suited.

Several archaeological contexts from the Roman town of *Baetulo* (Badalona, Catalonia), and the Iberian amphorae from the Cala Sant Vicenç shipwreck (Mallorca) and from the *Palaià Polis* of *Emporion* (Empúries, Catalonia), will be used to exemplify the above discussed issues. In that way, a general presentation of the subject, as well as the problems existing when conducting archaeometric studies on archaeological artefacts will be presented, and some important points, like the benefits of working with the Maximum Number of Individuals, will be highlighted. Even if, to present, the complexity of the subject does not allow definitive answers.

### References

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