# Title!

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#### abstract

## 1 introduction

This paper explores the question: how much can the chemical composition of pottery fragments tell us about the evolving connections between settlements in Bronze Age Greece?

# 2 literature review

In this section, two categories of literature are surveyed: (a) theories of Bronze Age trade relevant to the movement of ceramics, and (b) relevant archeometric and modeling methods.

Our dataset includes ceramic shreds from the 7th century BC to the Roman period, but mainly consists of works from the Late Helladic Period - III (LHIII, see fig. 3 for a chronology) fig. 1 is a map with dashed lines encoded hypotheses about prominent sea routes in the late Bronze Age.

Maps like fig. 1 are of tremendous historical significance if they can be constructed accurately. A common way to map trade is to identify artifacts that have been transported from their location of origin. How do researchers infer where ceramic objects and shreds originate?

Qualitative methods include categorization by geometric features, and material features. For instance, Davis[2] classifies pieces from LHI Korakou by shapes, as well as surface and burnishing, measured by the eye against a color chart. The task is to sort shreds and pieces by style, and also material - these two elements are necessary to differentiate cases where a style travels but pieces are built from local materials.

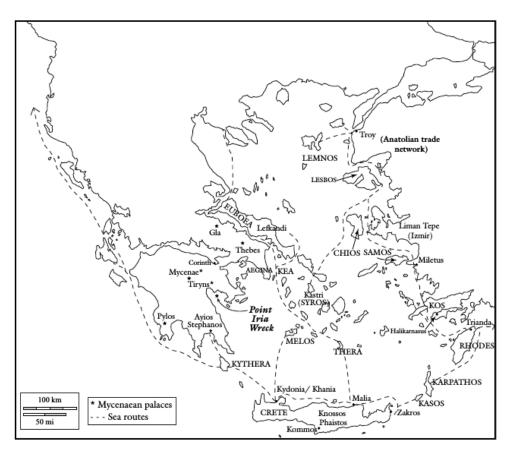
Quantitative

[1]

#### 3 method

#### References

- [1] John F Cherry and Jack L Davis. "The Cyclades and the Greek mainland in LC I: the evidence of the pottery". In: American Journal of Archaeology (1982), pp. 333–341.
- [2] Jack L Davis. "Late Helladic I Pottery from Korakou". In: Hesperia: The Journal of the American School of Classical Studies at Athens 48.3 (1979), pp. 234–263.



Map 7.3 Mycenaean palaces and Aegean maritime routes.

Figure 1:

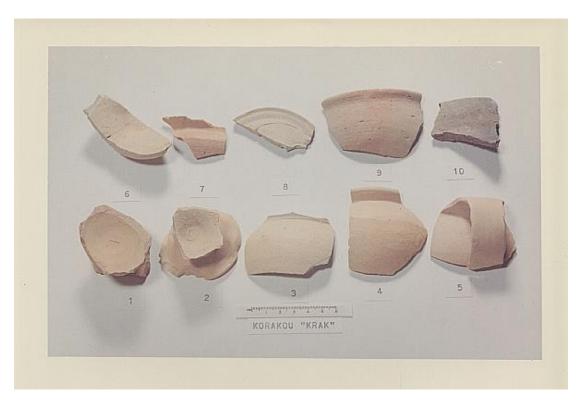


Figure 2: Example of shreds in the database

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Early Helladic 3200-2000 3200-2500 High point of Anatolian trade network 2000-2200 Disruption of trade between Cyclades, Mainland, and Crete. Upheaval in Mainland 2000-1550 Middle Helladic. Protopalatial and Neopalatial buildings in Crete 1650-1500 Late Helladic I / Late Cycladic I / Late Minoan IA 1500-1400 Late Helladic II 1400-1300 Late Helladic III A Late Helladic III B. High point of Mycenaean influence on trade 1300-1200 1200-1050 Late Helladic III C

End of Bronze Age. Transitional Period: Argos, Asine and Berbati rise to prominence.

Beginning of widespread use of pottery in Mediterranean. Aegina as maritime center

Figure 3: Timeline of Events of Interest (all dates B.C.)