What is Hidden in a Neolithic Midden?

The archaeobotanical assessment of two Neolithic midden spaces at Çatalhöyük, Turkey

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OBJECTIVES
- Analysis of a selection of archaeobotanical samples from two distinct midden spaces (earlier-mid 7th-millennium cal BC) in the 4040 area at Çatalhöyük
- Quantitative evaluation of spatial botanical compositional variation between midden sites
- Contribute to the growing understanding of the site’s internal variation, environment and cultural identity through archaeobotanical analysis
- Contribute valuable archaeobotanical data on midden composition within this Neolithic settlement where evidence of in situ activity is lacking (Hodder and Cessford 2004)

REFERENCES
Fairbairn, A., California at Los Angeles.

SPATIAL COMPOSITIONAL VARIATION
- Despite close proximity, the middens had distinct archaeobotanical compositions and overlapped little in multivariate space (Figure 4), suggesting fine scale partitioning of function within the settlement
- Samples separated along an axis ranging from domination by glume wheat chaff to domination by wild species with large amounts of cereal (Figure 6).

SITE CONTEXT
Çatalhöyük is a Neolithic tell site located in the Konya Plain of southern Anatolia in modern-day Turkey (Figure 1). Space 4040 is located on Çatalhöyük’s East Mound (Figure 2)

Space 279 Midden (Figure 3)
- Located physically limited by buildings
- Used for an extended duration with shifting borders
- Evidence of fire and other human activities such as cooking and food processing have been found (e.g. shallow pits with clay balls for heat retention and dung as a fuel source)

Space 133 Midden (Figure 4)
- Abutted a cluster of buildings
- Finely laminated layers with numerous fire spots during midden accumulation.

ARCHAEOBOTANICAL SUMMARY
- The range of cereals (Triticum dicoccum, Triticum monococcum, Triticum sp. “New Type”) (Figure 7), Hordeum vulgare, Triticum aestivum/durum) is consistent with those previously observed in the Neolithic levels of Çatalhöyük.
- The presence of significant chaff in the middens supports the idea that middens were used here to dispose of chaff from indoor processing of glume wheat (Bogaard et al. in press).
- Triticum aestivum/durum grains appeared to have a slightly rounder shape than those from other sites, which may be site-specific (Figure 8).
- The range of pulses found included: Vicia ervilia, Lens culinaris, Vicia/Lathyrus and Pisum sativum.
- Burned masses, from Space 279, had potentially identifiable plant material visible and one contained a visible fish vertebra (Figure 9) which may represent part of a burnt and discarded meal that contained fish.

CONCLUSIONS AND FURTHER RESEARCH DIRECTIONS
- The middens analyzed here have the potential to be combined with that of middens from across the site to potentially identify household, family or status patterns within or between neighbourhoods
- These data could be used for intra-site comparisons to reveal aspects of variation between consumption, on-site activities and differing levels of status.
- Dating information will also shed light on the chronological dimensions and temporal differences between midden deposits across Çatalhöyük.
- The placement of middens at Çatalhöyük suggests a level of communal decision-making and cooperation and the necessity for multi household cooperation in the disposal of waste within such a densely inhabited settlement.
- Buildings at Çatalhöyük were kept very clean and there is very little archaeological evidence of in situ activity (Hodder and Cessford 2004), which is why the archaeobotanical investigation of midden areas such as the two discussed here offers up a chance to examine aspects of the daily life of the residents at Çatalhöyük and, as Atalay and Hastorf (2006, 264) put it, “we can get closer to not only daily life but the mentality of the past.”

REFERENCES