Catalogue of the ceramic samples analyzed with electron microprobe, including BSE images and element maps images; with additional observations by Ellery Frahm (2008)¹

Late Chalcolithic, Chaff Tempered (LCH); from Temple Terrace, revetment wall



Sample #75: j01 p70 f196 LCH

• In addition to the large maps, a 5 mm x 5 mm set of maps was collected to show the microfabric better.

• In addition to the labeled minerals, I noted small and rare zicron, chromite, and Ca phosphate.

¹ Report on file with the Mozan/Urkesh Archaeological Project.

• It appears a fragment of bronze slag is included within the ceramic -- I initially thought that this was some piece of brass that was contamination from some step of our sample preparation, but its composition doesn't really allow for that.

• Overall clay composition seems to be most consistent with smectite clay, and some of the unknown minerals likely belong to this clay mineral group (which includes pyrophyllite, talc, vermiculite, sauconite, montmorillonite, etc).



Sample #76: j01 p71 f196 LCH

• In addition to the labeled minerals, I noted small and rare monazite, sphene, and Ca phosphate.

- The presence of corundum (aluminum oxide) is mostly likely due to contamination from sample prep.
- Overall clay composition seems to be most consistent with smectite clay, etc.

<u>J01q?</u>p72 f196 : Sample #77

Sherd image?



Sample #77: j01 p72 f196 LCH

• There appears to be a "pebble" included within the ceramic: it is right of the cusp of being a large sand grain or small pebble, and it is largely quartz and potassium feldspar, so it is consistent with arkose sand.

- In addition to the labeled minerals, I noted small and rare monazite inclusions.
- Overall clay composition seems to be most consistent with smectite clay, etc.



Sample #78: j01 p73 f196 LCH

- In addition to the labeled minerals, I noted small and rare chromite inclusions.
- Overall the microtexture of this sample seems to have a more continuous matrix.
- Overall clay composition seems to be most consistent with smectite clay, etc.

J01q?p74f196:Sample #79Sherd image?Image: Sherd image image

Sample #79: j01 p74 f196 LCH

• In addition to the labeled minerals, I noted small and rare olivine (?), sphene, and Ca phosphate.

• The presence of corundum (aluminum oxide) is mostly likely due to contamination from sample prep.

• Overall clay composition seems to be most consistent with smectite clay, etc.

3rd-2nd millennium



A14q469p6f193: Deep bowl?? Phase 5

Cross-reference: Appendix 1b



A14q692p11f223:Carinated bowl; Phase 5

Cross-reference: Appendix 1b



<u>A16q852p8f190</u>: Rim (jar?); Phase 5c

Cross-reference: Appendix 1b



A15q792p5f399: Necked Jar; Phase 6a

Cross-reference: Appendix 1b





A15q864p4f430: Hole Mouth Jar; Phase 6a

Cross-reference: Appendix 1b









J03q106p70f63 RC : Sample #80

Phase 7



Photo # V23q4002



Sample #80: j03 q106 p70 f63 RC

• There is an outer two-part layer on one side (the exterior?) and a quartz-calcite concretion on the other.

• Calcite concretions also coating interior voids, suggesting voids were present before preparation.

• Overall clay composition seems to be most consistent with smectite clay, etc.

J03q124p70f63 RC : Sample #81

Phase 6



photo # V23q4003



Sample #81: j03 q124 p70 f63 RC

- The amphibole present seems to be gedrite-type in composition, and the mica glauconite-type.
- Overall clay composition seems to be most consistent with smectite clay, etc.

<u>J04q200p70f89 FC: Sample #82</u>

Phase 7



Photo # V23q4101





10x10 mm





Sample #82: j04 q200 p70 f89 FC

• An outer paint layer was mapped as well, assumed to be magnetite (not hematite) due to its dark color.

- In addition to the microcline-type feldspar, a labradorite-type Ca-feldspar was also present.
- Overall clay composition seems to be most consistent with smectite clay, etc