**Methods: Supplementary Materials**

**Thin section**: Standard 30 micron thin sections (Quinn 2022) were prepared at the Wolfson Archaeological Science Laboratories and analysed using a LEICA DM EP Polarising micro- scope at magnification of 40–200 ×, visually grouped into fabrics based upon the nature of their inclusions, clay matrix and voids and interpreted in light of the different recipes used and possible provenance (Quinn 2022: 89–97). The storage jars and the modern sample were not analysed in thin section, as the samples were very small.

**LA-ICP-MS Analysis**: The sherds were also characterised geochemically by LA-ICP-MS using an Applied Spectra J200 Tandem LA/LIBS system coupled to an Agilent 7900 quadrupole ICP-MS (Table S1). Unfortunately, four samples (BRP1-4) were too small after thin sectioning to be analysed by LA-ICP-MS. For LA-ICP-MS analysis of the ceramic bodies the samples were first ground in a mortar, pulverised using a Planetary ball mill and finally pressed into a pellet in order to obtain a sample as homogenous as possible. Tuning of the torch and lenses was carried out at the start of the day to optimise the performance of the LA-ICP-MS using standard reference glass NIST 612 and to reduce element fractionation, which was monitored by tracking the 238U/232Th ratio, ensuring it was as close as possible to 1. Data collection was preceded by a pre-ablation delay followed by a washout delay to remove leftover material from the previous ablation. An experiment delay followed the final ablation. Data were collected as counts per second (cps), the background subtracted from the raw signal and the signal integrated over a thirty second time interval for each ablation. This 30-second time interval was chosen at least 20 seconds after the start of the ablation. The signal for each sample was averaged over the three ablation lines to obtain the average counts. Calibration was carried out using the internal standardisation method (Gratuze 2016, 1999), but the response factor, Ky, was calculated using a linear regression model following Neff (2012). Three SRMs were used for calibration: NIST 610, 614 and NIST 679. Accuracy and precision were measured on NIST 612 and are reported in S3. The relative accuracy is within 5% for most elements except Al, Mg, Na, Ti, Ag and Ge for which is within 18%-24%. A bigger error is observed for K and S. These elements are volatile and are present at very low concentrations in NIST612 and this might affect their accuracy. In our archaeological ceramics these are present at much higher concentrations and therefore they should not be affected by the same error.

**Table S1**: Summary of instrument parameters.

|  |  |
| --- | --- |
| **Laser ablation system** | Applied Spectra J200 Tandem LA/LIBS |
| **Laser - nm** | Nd:YAG – 213 |
| **Laser power** | 20%-40%[[1]](#footnote-1) |
| **Hz** | 10 |
| **Ablation mode** | Lines |
| **Number of lines** | 3 |
| **Warmup shots** | 100 |
| **Spot size (μm)** | 100 |
| **Pre-ablation delay (s)** | 15 |
| **Washout delay (s)** | 50 |
| **Experiment delay (s)** | 20 |
| **ICP-MS system** | Agilent 7900 quadrupole ICP-MS |
| **Carrier gas flow rate (l/min)** | 0.7 (Ar), 0.7 (He) |
| **Plasma gas flow rate (l/min)** | 0.7 (Ar) |

**Raman spectroscopy**: Raman spectroscopy is a non-invasive technique which is particularly useful for the identification of individual particles of pigment (Bersani et al. 2016; Bersani and Lottici 2016; Burgio and Clark 2001; Edwards et al. 2000; Orlando et al. 2021). Due to its high spatial and spectral resolution it allows the analysis of very thin layers of paint with no interaction from the ceramic substrate (ibid). Samples were analysed using a Renishaw inVia Qontor confocal Raman microscope. The inVia system comprises a research-grade microscope coupled to a high-performance Raman spectrometer. The accuracy and stability of the wavenumber were checked by recording the Raman spectra of a silicon standard (520 cm-1). The microscope was equipped with a camera which allowed the visual inspection of the sample in order to select the area of analysis. Spectra were collected using a 50x objective and a 785 nm laser with the pinhole inserted. The laser power was kept at 0.5 mW to avoid thermal degradation of the samples, with an exposure time of 10 seconds and 5 accumulations.

**p-XRF:** An Olympus Innox-X Delta Premium hand-held portable X-ray fluorescence spectrometer (‘UCL IoA pXRF4′) with a Rhodium source and a 2 mm aluminium filter. Data were collected using the 3-Beam Geochem Mode, which measures the concentrations of 40 elements, with all three beams, for 60 seconds each, with the collimator disengaged. Data were re-calibrated post-analysis using the re-calibration developed at UCL via the analysis of 14 certified reference materials (CRMs) of rock, ore, sediment, soil and ceramic and the application of linear regression (Quinn 2022, fig. 8.14: 344).  Correction factors determined by linear regression were applied to concentration values in a spreadsheet to obtain re-calibrated data. Performance of the re-calibration was independently tested via the analysis of a second set of standards. A total of 13 elements can be measured with an accuracy of <20% error (Al, Si, K, Ca, Ti, Mn, Fe, Zn, Rb, Sr, Y, Zr, Pb). A single standard (SARM 69) was analysed at the start of the session in to monitor the precision of the p-XRF for each element.

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**Table S2**:LA-ICP-MS data for the samples analysed along with information on the chemical group, fabric, decoration patterns, APW type, context and dating of samples. Oxides are in wt%, elements in ppm. Blank cells= below the detection limits.

| Painted wares | | Chemical Group | | Fabric | | Decoration patterns | APW type | | Context | | Date | Na2O | MgO | Al2O3 | SiO2 | P2O5 | SO3 | K2O | CaO | TiO2 | MnO | Fe2O3 | CuO | Sb2O3 | PbO |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Chi P1 | | Painted 1 | | Fabric 6 | | DP (1) | APW 13 | | F2H 2012-1BA-SE 360-2964 | | 6th/mid 7th c. AD | 0.57 | 1.90 | 13.8 | 52.6 | 0.79 | 0.01 | 1.32 | 20.4 | 0.70 | 0.06 | 7.44 | 0.01 | 0.00 | 0.00 |
| Chi P6 | | Painted 1 | | Fabric 4 | | DP (4) | APW 15 | | CHI22\_013-F2H M4 | | 6th c. AD | 0.70 | 1.86 | 14.8 | 50.8 | 0.28 | 0.09 | 1.53 | 20.8 | 0.73 | 0.07 | 7.91 | 0.01 | 0.00 | 0.00 |
| Chi P23 | | Painted 1 | | Fabric 5 | | DP 2 (bird) | APW 12 | | AGA 83/015\_10.003 | | 6th c. AD? | 0.71 | 1.93 | 14.4 | 47.0 | 0.41 | 0.28 | 1.50 | 25.0 | 0.64 | 0.06 | 7.60 | 0.01 | 0.00 | 0.01 |
| Chi P2 | | Painted 1 | | Fabric 4 | | DP (3) | APW 13-16 | | CHI22\_039-CH84-F2H-W | | 6th c. AD? | 0.61 | 1.84 | 13.5 | 50.2 | 0.50 | 0.11 | 1.58 | 22.7 | 0.67 | 0.06 | 7.80 | 0.01 | 0.00 | 0.01 |
| Chi P25 | | Painted 1 | | Fabric 4 | | DP (3) | closed vessel | | CHI22\_129-F2H12.S12.SE238 | | 6th c. AD | 0.59 | 1.84 | 14.1 | 49.8 | 0.45 | 0.30 | 1.32 | 22.7 | 0.77 | 0.07 | 7.54 | 0.01 | 0.00 | 0.00 |
| Chi P16 | | Painted 1 | | Fabric 4 | | DP (1) | closed vessel | | F2H12-18D-414.10.008 | | 6th/mid 7th c. AD | 0.80 | 1.94 | 13.8 | 44.4 | 0.46 | 0.50 | 1.06 | 28.0 | 0.70 | 0.07 | 7.75 | 0.03 | 0.00 | 0.02 |
| Chi P20 | | Painted 1 | | Fabric 5 | | DP (4) | APW 10 | | CHI22\_TR24\_2013 | | 6th/7th c. AD - 9th c. AD | 0.68 | 1.77 | 15.1 | 56.0 | 0.56 | 0.05 | 1.57 | 15.0 | 0.98 | 0.08 | 7.61 | 0.01 | 0.00 | 0.01 |
| Chi P3 | | Painted 2 | | Fabric 4 | | DP (4) | APW 14a | | CHI22\_041-CH84-F2H-R2 | | 5th-6th c. AD | 0.71 | 2.04 | 13.5 | 51.2 | 0.48 | 0.06 | 1.39 | 22.5 | 0.66 | 0.05 | 7.00 | 0.01 | 0.00 | 0.00 |
| Chi P4 | | Painted 2 | | Fabric 4 | | DP (2)-bird | APW 14a | | CHI22\_041-CH84-F2H-R2 | | 5th-6th c. AD | 0.66 | 1.88 | 14.0 | 52.1 | 0.49 | 0.09 | 1.33 | 20.7 | 0.65 | 0.06 | 7.62 | 0.01 | 0.00 | 0.00 |
| Chi P5 | | Painted 2 | | Fabric 8 | | DP (4) and (1) | APW 14b | | CHI22\_014-F2H M4 | | 6th c. AD | 0.81 | 1.89 | 13.4 | 50.7 | 0.60 | 0.17 | 1.37 | 22.9 | 0.67 | 0.07 | 7.08 | 0.01 | 0.00 | 0.00 |
| Chi P7 | | Painted 2 | | Fabric 4 | | DP (3) | APW 13-16 | | CHI22-028-CH84-F2H-W | | 6th c. AD? | 0.57 | 1.43 | 11.6 | 59.6 | 0.56 | 0.10 | 1.01 | 18.2 | 0.59 | 0.06 | 6.00 | 0.00 | 0.00 | 0.00 |
| Chi P8 | | Painted 2 | | Fabric 7 | | DP (1) | open vessel APW 12? | | CHI22\_025-CH84-F2H W | | 6th c. AD? | 0.68 | 1.86 | 15.2 | 54.8 | 0.38 | 0.02 | 1.26 | 17.6 | 0.77 | 0.04 | 7.10 | 0.00 | 0.00 | 0.00 |
| Chi P9 | | Painted 2 | | Fabric 5 | | DP (3) | APW 16 | | AGA 83/006\_10.007 | | 6th c. AD? | 0.65 | 1.92 | 15.0 | 50.8 | 1.01 | 0.00 | 1.49 | 20.5 | 0.72 | 0.06 | 7.53 | 0.01 | 0.00 | 0.01 |
| Chi P10 | | Painted 2 | | Fabric 4 | | DP (4) | APW 16 | | F2H10-09.SE41-2245 | | 6th c. AD/7th c.? | 0.54 | 1.83 | 14.8 | 49.5 | 0.58 | 0.00 | 1.39 | 21.7 | 0.67 | 0.07 | 8.55 | 0.01 | 0.00 | 0.00 |
| Chi P11 | | Painted 2 | | Fabric 4 | | DP (4) and (2)? | closed vessel | | CHI22\_043-CH84-F2H-M2 | | 6th c. AD | 0.71 | 1.90 | 14.2 | 46.4 | 0.50 | 0.07 | 1.20 | 26.4 | 0.66 | 0.10 | 7.37 | 0.01 | 0.00 | 0.00 |
| Chi P12 | | Painted 2 | | Fabric 4 | | DP (3) and (4) | open vessel | | CHI22\_044\_CH84-F2H-M2 | | 6th c. AD | 0.68 | 1.68 | 13.8 | 49.6 | 0.48 | 0.24 | 1.27 | 24.4 | 0.69 | 0.08 | 6.76 | 0.01 | 0.00 | 0.01 |
| Chi P13 | | Painted 2 | | Fabric 4 | | DP (3) and (1) | APW 13-16 | | CHI22\_045-CH84-F"H-M2 | | 6th c. AD | 0.64 | 1.97 | 14.1 | 48.9 | 0.56 | 0.17 | 1.26 | 23.1 | 0.81 | 0.07 | 7.91 | 0.01 | 0.00 | 0.01 |
| Chi P14 | | Painted 2 | | Fabric 4 | | DP (4) | APW 14c | | CHI22\_078-F2H12-14-SE248 | | 6th/mid 7th c. AD | 0.72 | 2.02 | 15.1 | 49.9 | 0.52 | 0.03 | 1.33 | 21.2 | 0.75 | 0.06 | 7.91 | 0.01 | 0.00 | 0.00 |
| Chi P15 | | Painted 2 | | Fabric 6 | | DP (1) and (3)? | open vessel APW 12? | | CHI22\_087\_CH84-F2H | | 6th c. AD | 0.60 | 1.70 | 13.4 | 54.2 | 0.67 | 0.08 | 1.39 | 19.8 | 0.73 | 0.07 | 6.99 | 0.00 | 0.00 | 0.00 |
| Chi P17 | | Painted 2 | | Fabric 6 | | DP (1) | closed vessel | | F2H12-18D-414.10.008 | | 6th/mid 7th c. AD | 0.73 | 1.95 | 14.6 | 55.5 | 0.31 | 0.00 | 1.32 | 16.8 | 0.81 | 0.06 | 7.60 | 0.01 | 0.00 | 0.01 |
| Chi P18 | | Painted 2 | | Fabric 6 | | DP (1) | APW 1 | | F2H12-17-SE283.2304 | | 6th c. AD | 0.77 | 1.98 | 12.1 | 51.3 | 0.56 | 0.22 | 1.14 | 24.2 | 0.68 | 0.05 | 6.69 | 0.00 | 0.00 | 0.00 |
| Chi P19 | | Painted 2 | | Fabric 5 | | DP (1) and (2) birds | closed vessel | | CHI\_106-F2H12-11-SE212 | | 6th c. AD | 0.79 | 1.73 | 15.2 | 55.4 | 0.46 | 0.00 | 1.52 | 15.3 | 0.82 | 0.06 | 8.21 | 0.01 | 0.00 | 0.01 |
| Chi P21 | | Painted 2 | | Fabric 4 | | DP (2)-bird | APW 6-7 | | F2H 2012-S17-SE283-2303 | | 6th/7th c. AD - 9th c. AD | 0.57 | 1.74 | 15.2 | 49.1 | 0.31 | 0.14 | 1.47 | 23.0 | 0.80 | 0.05 | 7.23 | 0.00 | 0.00 | 0.00 |
| Chi P22 | | Painted 2 | | Fabric 5 | | DP (4) and (1) | closed vessel | | CHI\_106-F2H12-11-SE212 | | 6th c. AD? | 0.66 | 1.89 | 15.0 | 49.5 | 0.81 | 0.12 | 1.32 | 21.8 | 0.70 | 0.07 | 7.70 | 0.01 | 0.00 | 0.00 |
| Chi P24 | | Painted 2 | | Fabric 5 | | DP (2) bird | closed vessel | | CHI22\_086-CH84-F"H-M1 | | 6th c. AD? | 0.76 | 1.76 | 15.8 | 53.4 | 0.52 | 0.09 | 1.66 | 16.6 | 0.82 | 0.06 | 8.01 | 0.01 | 0.00 | 0.01 |
| Chi P26 | | Painted 2 | | Fabric 4 | | DP (4) | closed vessel | | CHI22\_120-F2H12.S12.SE238 | | 6th c. AD | 0.82 | 1.64 | 15.4 | 58.3 | 0.45 | 0.03 | 1.52 | 12.3 | 0.79 | 0.05 | 8.32 | 0.00 | 0.00 | 0.01 |
| Chi P27 | | Painted 2 | | Fabric 4 | | DP (2) floral? and (4) | open vessel | | CHI22\_032-CH84-F2H-W | | 6th c. AD? | 0.72 | 1.97 | 14.4 | 49.9 | 0.50 | 0.12 | 1.37 | 22.2 | 0.78 | 0.06 | 7.57 | 0.01 | 0.00 | 0.00 |
| Chi P28 | | Painted 2 | | Fabric 5 | | DP (3) | APW 10 | | CHI22\_051-CH84-F2H-M2/M3 | | 6th c. AD? | 0.65 | 1.85 | 15.2 | 50.1 | 0.55 | 0.08 | 1.41 | 21.1 | 0.78 | 0.06 | 7.74 | 0.01 | 0.00 | 0.00 |
| Chi P29 | | Painted 2 | | Fabric 6 | | DP (2)-bird | APW 10 | | CHI22\_017-F2H M1 | | 6th c. AD? | 0.67 | 1.90 | 15.3 | 50.6 | 0.71 | 0.10 | 1.52 | 20.5 | 0.74 | 0.07 | 7.49 | 0.01 | 0.00 | 0.01 |
| Chi P30 | | Painted 2 | | Fabric 4 | | DP (3) or (2) bird? | APW 12 | | CHI22\_022-F2H M1 | | 6th c. AD? | 0.55 | 1.64 | 14.8 | 52.2 | 0.58 | 0.09 | 1.48 | 19.2 | 0.81 | 0.08 | 8.10 | 0.01 | 0.00 | 0.01 |
| Chi P31 | | Painted 2 | | Fabric 4 | | DP (1) and (3) | closed vessel | | CHI22\_018-F2H M1 | | 6th c. AD? | 0.77 | 1.77 | 14.7 | 56.9 | 0.58 | 0.03 | 1.51 | 15.0 | 0.77 | 0.06 | 7.64 | 0.01 | 0.00 | 0.01 |
| Chi P32 | | Painted 2 | | Fabric 8 | | DP 2 (leaves) | closed vessel | | CHI22\_TR26-3679 | | 6th/7th c. AD - 10th c. AD | 0.74 | 1.56 | 15.3 | 49.5 | 0.38 | 0.23 | 2.40 | 21.0 | 0.72 | 0.07 | 7.75 | 0.01 | 0.00 | 0.01 |
| Chi P33 | | Painted 2 | | Fabric 4 | | DP (2) bird and (1) | APW 6-7? | | F2H 2012-18A-SE360-3522+3543 | | 6th/mid 7th c. AD | 0.74 | 1.76 | 15.2 | 54.8 | 0.54 | 0.13 | 1.53 | 16.2 | 1.05 | 0.07 | 7.54 | 0.01 | 0.00 | 0.01 |
| Chi P34 | | Painted 2 | | Fabric 4 | | DP (4) | APW 9 | | CHI22\_TR25-3012.100-100 | | 6th/7th c. AD - 10th c. AD | 0.53 | 1.81 | 14.5 | 47.1 | 0.39 | 0.28 | 1.73 | 24.8 | 0.75 | 0.07 | 7.73 | 0.00 | 0.00 | 0.00 |
| Chi P35 | | Painted 2 | | Fabric 4 | | DP (1) | APW 1 | | CH-F2H M1 | | 6th c. AD? | 0.59 | 1.82 | 14.5 | 49.5 | 0.42 | 0.12 | 1.21 | 23.1 | 0.84 | 0.07 | 7.50 | 0.00 | 0.00 | 0.00 |
| Chi P36 | | Painted 2 | | Fabric 4 | | DP (3) | closed vessel | | F2H 2012-18A-SE360 | | 6th/mid 7th c. AD | 0.77 | 1.99 | 15.4 | 54.6 | 0.38 | 0.03 | 1.59 | 17.3 | 0.69 | 0.06 | 6.90 | 0.00 | 0.00 | 0.00 |
| Chi P37 | | Painted 2 | | Fabric 6 | | DP (1) | closed vessel | | F2H2013-S18-SE360 | | 6th/mid 7th c. AD | 0.72 | 1.67 | 15.4 | 54.6 | 0.55 | 0.08 | 1.42 | 17.1 | 0.77 | 0.05 | 7.24 | 0.01 | 0.00 | 0.00 |
| Chi P38 | | Painted 2 | | Fabric 4 | | DP (3) | closed vessel | | F2H 212-18A-SE360 | | 6th/mid 7th c. AD | 0.57 | 1.90 | 14.1 | 47.1 | 0.45 | 0.25 | 1.45 | 25.0 | 1.03 | 0.07 | 7.67 | 0.01 | 0.00 | 0.00 |
| BR P5 | | Painted 2 | | Fabric 8 | | DP (1) and (2) | APW 12 | | BR10\_Z1\_US2\_225 | | 6th c. AD | 0.67 | 2.13 | 15.5 | 45.9 | 0.31 | 0.00 | 1.51 | 24.7 | 0.95 | 0.07 | 7.86 | 0.01 | 0.00 | 0.01 |
| BR P6 | | Painted 2 | | Fabric 4 | | DP (1) | APW 4b | | BR22.4053.376 | | end 6th/7th c. AD | 0.78 | 2.06 | 16.4 | 46.4 | 0.50 | 0.22 | 2.09 | 22.6 | 0.91 | 0.08 | 7.63 | 0.01 | 0.00 | 0.01 |
| BR P7 | | Painted 2 | | Fabric 8 | | DP (1) | closed vessel | | BR18\_1064\_234 | | 6th c. AD? | 0.77 | 1.77 | 14.1 | 47.8 | 0.27 | 0.07 | 1.45 | 24.7 | 0.97 | 0.08 | 7.66 | 0.01 | 0.00 | 0.01 |
| BR P8 | | Painted 2 | | Fabric 4 | | DP (2) | open vessel | | BR18\_1064\_234 | | 6th c. AD? | 0.61 | 1.89 | 14.6 | 47.1 | 0.26 | 0.22 | 1.42 | 24.8 | 0.89 | 0.07 | 7.76 | 0.01 | 0.00 | 0.01 |
| BR P9 | | Painted 2 | | Fabric 4 | | DP (1) and (2) bird? | closed vessel | | BR10\_F254\_Z2\_315 | | 6th c. AD? | 0.57 | 1.93 | 14.8 | 50.6 | 0.22 | 0.05 | 1.44 | 22.2 | 0.80 | 0.06 | 6.95 | 0.00 | 0.00 | 0.01 |
| BR P10 | | Painted 2 | | Fabric 4 | | DP (1) | APW 1 | | BR10.US6.Z2-314 | | 6th c. AD | 0.55 | 1.85 | 14.7 | 47.9 | 0.36 | 0.21 | 1.61 | 23.9 | 0.94 | 0.07 | 7.46 | 0.01 | 0.00 | 0.01 |
| BR P11 | | Painted 2 | | Fabric 4 | | DP (2) | APW 6 | | BR10\_Z3\_US8\_305 | | 6th c. AD | 0.72 | 2.16 | 15.0 | 47.2 | 0.39 | 0.27 | 1.28 | 22.8 | 0.95 | 0.08 | 8.79 | 0.01 | 0.00 | 0.01 |
| BR P12 | | Painted 2 | | Fabric 6 | | DP (1) | APW 8 | | BR22.4053.374 | | 6th c. AD | 0.73 | 2.05 | 15.3 | 47.8 | 0.47 | 0.15 | 1.90 | 22.7 | 0.93 | 0.07 | 7.48 | 0.01 | 0.00 | 0.01 |
| BR P14 | | Painted 2 | | Fabric 4 | | DP (2)?/DP (3)? | closed vessel | | BR22.4053. | | end 6th/7th c. AD | 0.61 | 1.85 | 15.9 | 53.5 | 0.30 | 0.08 | 1.93 | 18.4 | 0.79 | 0.05 | 6.34 | 0.00 | 0.00 | 0.01 |
| BR P15 | | Painted 2 | | Fabric 4 | | DP (1) | closed vessel | | BR22-4053B | | end 6th/7th c. AD | 0.46 | 1.63 | 14.4 | 52.4 | 0.25 | 0.24 | 1.79 | 21.9 | 0.79 | 0.05 | 5.80 | 0.00 | 0.00 | 0.01 |
| BR P16 | | Painted 2 | | Fabric 4 | | DP (3) | closed vessel | | BR22-4053C | | end 6th/7th c. AD | 0.59 | 1.86 | 15.7 | 52.7 | 0.27 | 0.14 | 1.79 | 19.4 | 0.83 | 0.05 | 6.26 | 0.00 | 0.00 | 0.01 |
| BR P17 | | Painted 2 | | Fabric 4 | | DP (1) and (4) | closed vessel | | BR22-4053D | | end 6th/7th c. AD | 0.63 | 1.89 | 15.2 | 52.1 | 0.43 | 0.19 | 1.76 | 20.3 | 0.78 | 0.06 | 6.35 | 0.00 | 0.00 | 0.01 |
| BR P18 | | Painted 2 | | Fabric 6 | | DP (1) | closed vessel | | BR22-4053E | | end 6th/7th c. AD | 0.61 | 2.09 | 16.0 | 51.9 | 0.22 | 0.04 | 1.94 | 19.1 | 0.98 | 0.06 | 6.63 | 0.00 | 0.00 | 0.01 |
| BR P19 | | Painted 2 | | Fabric 4 | | DP (1) | closed vessel | | BR22-4053F | | end 6th/7th c. AD | 0.62 | 2.16 | 16.6 | 51.8 | 0.22 | 0.05 | 1.91 | 18.2 | 0.99 | 0.06 | 6.99 | 0.00 | 0.00 | 0.01 |
| BRP13 | | Outlier | | Outlier | | DP (1) | APW 12 | | BR18-3066-99 | | 6th c.-9th? C. AD | 0.35 | 0.91 | 22.3 | 67.6 | 0.14 | 0.00 | 1.72 | 0.60 | 1.57 | 0.01 | 4.55 | 0.00 | 0.00 | 0.00 |
| STOR1 | | Storage Jar | | not analysed | | no DP | no type | | BR | | modern | 0.73 | 1.17 | 14.4 | 50.2 | 0.28 | 0.13 | 2.00 | 24.3 | 0.72 | 0.04 | 5.66 |  | 0.01 | 47.3 |
| STOR2 | | Storage Jar | | not analysed | | no DP | no type | | BR22-4033-348 | | end 6th/7th c. AD | 0.50 | 1.07 | 13.2 | 52.6 | 0.24 | 0.17 | 2.34 | 23.4 | 0.67 | 0.04 | 5.49 |  | 0.01 | 49.7 |
| STOR3 | | Storage Jar | | not analysed | | no DP | no type | | BR22-4033-349 | | end 6th/7th c. AD | 0.41 | 1.17 | 12.7 | 48.5 | 0.15 | 0.20 | 2.11 | 28.4 | 0.61 | 0.03 | 5.20 |  | 0.01 | 64.0 |
| STOR4 | | Storage Jar | | not analysed | | no DP | no type | | BR22-4037-360 | | end 6th/7th c. AD | 0.56 | 1.08 | 13.1 | 60.0 | 0.17 | 0.09 | 2.16 | 16.5 | 0.89 | 0.05 | 5.09 |  | 0.01 | 44.5 |
| STOR5 | | Storage Jar | | not analysed | | no DP | no type | | BR22-4037-361 | | end 6th/7th c. AD | 0.74 | 1.39 | 13.1 | 50.8 | 0.23 | 0.13 | 1.92 | 25.7 | 0.71 | 0.04 | 4.90 |  | 0.01 | 51.4 |
| Modern | | Modern sherd | | not analysed | | no DP | no type | | BR-Museum | |  | 0.72 | 1.92 | 18.0 | 54.2 | 0.22 | 0.15 | 2.57 | 15.3 | 0.90 | 0.03 | 5.59 | 0.01 | 0.01 | 109 |
| ChiTub1 | | Tubuli | | Fabric 4 | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.70 | 1.75 | 12.4 | 50.5 | 0.30 | 1.06 | 1.33 | 23.9 | 0.67 | 0.07 | 6.91 | 0.01 | 0.01 | 82.8 |
| ChiTub2 | | Tubuli | | Fabric 4 | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.61 | 1.58 | 13.0 | 50.7 | 0.23 | 1.88 | 1.19 | 22.6 | 0.61 | 0.06 | 7.12 |  | 0.01 | 81.0 |
| ChiTub3 | | Tubuli | | Fabric 4 | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.40 | 1.56 | 12.1 | 54.3 | 0.24 | 2.27 | 1.35 | 19.7 | 0.56 | 0.06 | 6.93 |  | 0.01 | 65.2 |
| ChiTub4 | | Tubuli | | Fabric 4 | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.59 | 1.89 | 15.1 | 49.7 | 0.34 | 1.07 | 1.37 | 21.4 | 0.73 | 0.06 | 7.30 |  | 0.01 | 82.6 |
| ChiTub5 | | Tubuli | | Fabric 4, greenish | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.83 | 1.63 | 12.3 | 55.9 | 0.27 | 1.02 | 1.42 | 18.4 | 0.54 | 0.06 | 7.26 |  |  | 73.6 |
| ChiTub6 | | Tubuli | | Fabric 4 | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.64 | 1.75 | 13.6 | 53.3 | 0.36 | 0.00 | 1.39 | 20.7 | 0.67 | 0.06 | 7.01 | 0.01 | 0.01 | 77.5 |
| ChiTub7 | | Tubuli | | Fabric 4 | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.53 | 1.61 | 13.3 | 55.0 | 0.27 | 1.11 | 0.97 | 19.1 | 0.70 | 0.07 | 6.88 |  | 0.01 | 69.1 |
| ChiTub8 | | Tubuli | | Fabric 4 | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.41 | 2.30 | 12.9 | 50.3 | 0.41 | 2.21 | 1.15 | 22.6 | 0.52 | 0.05 | 6.68 | 0.01 | 0.01 | 78.0 |
| ChiTub9 | | Tubuli | | Fabric 4 | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.51 | 2.03 | 13.0 | 50.9 | 0.29 | 0.45 | 1.21 | 22.5 | 1.08 | 0.08 | 7.46 | 0.01 | 0.00 | 80.5 |
| ChiTub10 | | Tubuli | | Fabric 4 | | no DP | no type | | Chi 2012 F2H 18D US 481 | | end 6th/mid 7th c. AD | 0.63 | 1.47 | 12.3 | 53.0 | 0.35 | 2.51 | 1.10 | 21.1 | 0.54 | 0.08 | 6.31 |  | 0.01 | 85.8 |
| BRTub11 | | Tubuli | | Fabric 5? | | no DP | no type | | BR 2023 2033 A | | destr. cemetry church | 0.59 | 2.94 | 14.5 | 50.2 | 0.29 | 1.69 | 1.39 | 20.4 | 0.66 | 0.06 | 6.88 |  | 0.01 | 80.7 |
| BRTub12 | Tubuli | | Fabric 4 | | no DP | | no type | BR 2023 2033 A | | destr. cemetry church | | 0.37 | 1.40 | 13.9 | 54.0 | 0.25 | 0.00 | 1.75 | 21.1 | 0.59 | 0.03 | 6.11 |  | 0.01 | 112 |
| BRTub13 | Tubuli | | Fabric 4 | | no DP | | no type | BR 2023 2033 A | | destr. cemetry church | | 0.33 | 1.52 | 14.2 | 56.1 | 0.24 | 0.22 | 1.79 | 18.6 | 0.59 | 0.03 | 6.05 |  | 0.01 | 113 |
| BRTub14 | Tubuli | | Fabric 4 | | no DP | | no type | BR 2023 2033 A | | destr. cemetry church | | 0.33 | 1.48 | 14.6 | 55.4 | 0.20 | 0.71 | 1.89 | 18.6 | 0.62 | 0.03 | 5.85 |  | 0.01 | 115 |
| BRTub15 | Tubuli | | Fabric 4 | | no DP | | no type | BR 2023 2033 A | | destr. cemetry church | | 0.33 | 1.23 | 15.4 | 58.9 | 0.20 | 1.14 | 1.87 | 14.1 | 0.61 | 0.03 | 5.80 |  | 0.01 | 104 |
| BRTub16 | Tubuli | | Fabric 4 | | no DP | | no type | BR 2023 2033 A | | destr. cemetry church | | 0.41 | 1.58 | 15.0 | 54.2 | 0.28 | 0.75 | 1.72 | 18.8 | 0.62 | 0.03 | 6.14 |  |  | 112 |
| 005-Chi 1 clay | Clay sample | |  | |  | |  |  | |  | | 0.36 | 1.67 | 16.1 | 51.9 | 0.17 | 0.06 | 1.80 | 18.7 | 0.87 | 0.08 | 7.88 |  | 0.01 | 121 |
| 006-Chi 3 clay | Clay sample | |  | |  | |  |  | |  | | 0.28 | 3.25 | 16.3 | 55.8 | 0.27 | 0.06 | 2.62 | 12.3 | 0.87 | 0.03 | 7.88 |  |  | 104 |
| 007-Chi 4 clay | Clay sample | |  | |  | |  |  | |  | | 0.10 | 0.87 | 22.7 | 61.8 | 0.10 | 0.04 | 0.90 | 0.6 | 1.14 | 0.01 | 11.4 |  | 0.01 | 89.2 |
| 009-Chi 5 clay | Clay sample | |  | |  | |  |  | |  | | 0.17 | 1.28 | 22.5 | 60.8 | 0.14 | 0.05 | 1.80 | 0.6 | 0.99 | 0.02 | 11.2 | 0.01 | 0.01 | 116 |
| 010-Chi theatre clay | Clay sample | |  | |  | |  |  | |  | | 0.33 | 1.50 | 15.2 | 53.8 | 0.17 | 0.14 | 1.68 | 17.7 | 0.94 | 0.13 | 7.97 |  | 0.01 | 95.9 |
| 011-Chi 7 clay | Clay sample | |  | |  | |  |  | |  | | 0.41 | 2.49 | 17.7 | 54.1 | 0.25 | 0.10 | 2.01 | 13.4 | 0.88 | 0.02 | 8.33 |  |  | 108 |
| 012-BR 1 clay | Clay sample | |  | |  | |  |  | |  | | 0.13 | 1.11 | 18.6 | 57.1 | 0.16 | 0.00 | 2.27 | 15.4 | 1.30 | 0.03 | 3.47 | 0.03 |  | 216 |
| 013-BR 2 clay | Clay sample | |  | |  | |  |  | |  | | 0.35 | 1.10 | 14.7 | 54.7 | 0.48 | 0.06 | 2.34 | 21.8 | 0.76 | 0.05 | 3.38 |  |  | 133 |
| 014-BR 3 clay | Clay sample | |  | |  | |  |  | |  | | 0.20 | 1.47 | 14.9 | 44.5 | 0.28 | 0.09 | 2.05 | 27.1 | 0.87 | 0.07 | 8.12 |  |  | 112 |
| 015-BR 4 clay | Clay sample | |  | |  | |  |  | |  | | 0.33 | 1.88 | 15.9 | 51.3 | 0.20 | 0.09 | 2.36 | 18.5 | 0.86 | 0.05 | 8.04 |  | 0.01 | 114 |
| 016-BR 5 clay | Clay sample | |  | |  | |  |  | |  | | 0.48 | 1.81 | 15.9 | 48.4 | 0.18 | 0.17 | 2.26 | 21.7 | 0.87 | 0.06 | 7.72 |  |  | 115 |
| 017-BR 6 clay | Clay sample | |  | |  | |  |  | |  | | 0.39 | 2.05 | 14.0 | 44.8 | 0.23 | 0.19 | 2.04 | 27.3 | 0.90 | 0.09 | 7.63 |  | 0.01 | 88.5 |
| 018-BR 7 clay | Clay sample | |  | |  | |  |  | |  | | 0.79 | 1.90 | 18.2 | 54.9 | 0.22 | 0.05 | 2.12 | 12.6 | 1.00 | 0.05 | 7.85 |  | 0.01 | 121 |
| 019-BR 8 clay | Clay sample | |  | |  | |  |  | |  | | 0.46 | 3.43 | 17.7 | 57.1 | 0.25 | 2.20 | 3.18 | 6.0 | 1.00 | 0.03 | 8.28 |  | 0.01 | 283 |
| 020-BR 9 clay | Clay sample | |  | |  | |  |  | |  | | 0.29 | 1.59 | 18.7 | 56.3 | 0.14 | 0.16 | 2.52 | 9.4 | 1.05 | 0.13 | 9.22 | 0.01 | 0.01 | 98.3 |
| 021-BR Zagag clay | Clay sample | |  | |  | |  |  | |  | | 1.05 | 1.93 | 18.1 | 55.1 | 0.22 | 0.42 | 2.28 | 13.3 | 0.92 | 0.03 | 6.35 |  | 0.01 | 113 |
| 022-S1 clay | Clay sample | |  | |  | |  |  | |  | | 0.16 | 1.02 | 16.8 | 71.2 | 0.20 | 0.06 | 1.52 | 1.5 | 0.80 | 0.01 | 6.49 |  |  | 32.7 |
| 023-S2 clay | Clay sample | |  | |  | |  |  | |  | | 0.51 | 1.41 | 18.3 | 61.6 | 0.74 | 0.29 | 1.93 | 5.2 | 0.83 | 0.03 | 8.86 | 0.01 | 0.01 | 54.7 |
| 024-S white clay | Clay sample | |  | |  | |  |  | |  | | 0.28 | 0.82 | 21.2 | 71.1 | 0.11 | 0.06 | 1.25 | 0.4 | 1.33 | 0.00 | 3.19 | 0.01 |  | 36.2 |
| BR P1 | not analysed | | Fabric 6 | | DP (1) | | APW 1 | BR 17-- church of Alexander? Carton | | end 6th/7th c. AD | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BR P2 | not analysed | | Fabric 8 | | DP (1) and (3) | | APW4 | BR 17-- church of Alexander? Carton | | end 6th/7th c. AD | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BR P3 | not analysed | | Fabric 4 | | DP (1) | | APW3 | BR 17-- church of Alexander? Carton | | end 6th/7th c. AD | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BR P4 | not analysed | | Fabric 4 | | DP (1) | | APW 6-7 | BR 17-- church of Alexander? Carton | | end 6th/7th c. AD | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

***Table S2*** *continued*

| Painted wares | Chemical Group | Fabric | Decoration pattern | APW Type | Context | Date | Li | Sc | V | Cr | Co | Ni | Zn | Ga | Ge | As | Br | Rb | Sr | Y | Zr | Nb | Mo | Ag |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Chi P1 | Painted 1 | Fabric 6 | DP (1) | APW 13 | F2H 2012-1BA-SE 360-2964 | 6th/mid 7th c. AD | 68.9 | 20.4 | 171 | 191 | 21.3 | 59.1 | 235 | 26.24 | 1.87 | 26.7 | 95.6 | 89.0 | 788 | 29.1 | 508 | 22.2 | 3.10 | 0.29 |
| Chi P6 | Painted 1 | Fabric 4 | DP (4) | APW 15 | CHI22\_013-F2H M4 | 6th c. AD | 73.9 | 21.2 | 156 | 226 | 24.1 | 63.0 | 330 | 27.59 | 1.78 | 74.3 | 42.1 | 90.5 | 951 | 31.95 | 415 | 23.0 | 2.90 | 0.27 |
| Chi P23 | Painted 1 | Fabric 5 | DP 2 (bird) | APW 12 | AGA 83/015\_10.003 | 6th c. AD? | 60.3 | 19.8 | 122 | 301 | 21.8 | 64.7 | 230 | 25.56 | 1.89 | 41.3 | 22.2 | 81.8 | 1052 | 30.58 | 411 | 20.5 | 4.56 | 0.38 |
| Chi P2 | Painted 1 | Fabric 4 | DP (3) | APW 13-16 | CHI22\_039-CH84-F2H-W | 6th c. AD? | 63.3 | 20.4 | 135 | 531 | 22.8 | 68.7 | 268 | 24.9 | 1.47 | 35.0 | 13.1 | 88.8 | 923 | 27.72 | 545 | 20.7 | 9.84 | 0.28 |
| Chi P25 | Painted 1 | Fabric 4 | DP (3) | closed vessel | CHI22\_129-F2H12.S12.SE238 | 6th c. AD | 76.2 | 20.2 | 153 | 405 | 23.2 | 64.7 | 309 | 26.7 | 2.23 | 95.3 | 28.8 | 78.0 | 1065 | 36.23 | 574 | 24.5 | 5.73 | 0.3 |
| Chi P16 | Painted 1 | Fabric 4 | DP (1) | closed vessel | F2H12-18D-414.10.008 | 6th/mid 7th c. AD | 60.5 | 24.3 | 120 | 170 | 21.8 | 64.0 | 329 | 26.33 | 1.52 | 55.1 |  | 65.9 | 1309 | 45.71 | 570 | 20.8 | 3.46 | 0.18 |
| Chi P20 | Painted 1 | Fabric 5 | DP (4) | APW 10 | CHI22\_TR24\_2013 | 6th/7th c. AD - 9th c. AD | 56.2 | 21.1 | 159 | 286 | 30.4 | 69.2 | 241 | 26.16 | 0.75 | 94.1 | 83.2 | 91.0 | 774 | 36.54 | 979 | 27.3 | 5.42 | 0.48 |
| Chi P3 | Painted 2 | Fabric 4 | DP (4) | APW 14a | CHI22\_041-CH84-F2H-R2 | 5th-6th c. AD | 70.2 | 19.1 | 152 | 182 | 21.1 | 59.4 | 233 | 24.92 | 2.42 | 22.7 | 0.0 | 90.4 | 912 | 28.13 | 119 | 21.7 | 2.43 | 0.32 |
| Chi P4 | Painted 2 | Fabric 4 | DP (2)-bird | APW 14a | CHI22\_041-CH84-F2H-R2 | 5th-6th c. AD | 64.4 | 19.9 | 150 | 172 | 21.7 | 60.5 | 227 | 24.71 | 1.99 | 26.5 | 62.3 | 83.8 | 784 | 31.89 | 226 | 21.2 | 1.85 | 0.28 |
| Chi P5 | Painted 2 | Fabric 8 | DP (4) and (1) | APW 14b | CHI22\_014-F2H M4 | 6th c. AD | 57.6 | 19.8 | 135 | 324 | 22.5 | 62.5 | 237 | 23.96 | 1.96 | 34.8 | 10.8 | 83.4 | 1009 | 32.97 | 142 | 21.0 | 4.50 | 0.26 |
| Chi P7 | Painted 2 | Fabric 4 | DP (3) | APW 13-16 | CHI22-028-CH84-F2H-W | 6th c. AD? | 50.1 | 16.5 | 116 | 193 | 18.2 | 49.5 | 200 | 22.1 | 1.93 | 35.6 | 60.1 | 62.0 | 778 | 24.83 | 166 | 18.8 | 2.78 | 0.15 |
| Chi P8 | Painted 2 | Fabric 7 | DP (1) | open vessel APW 12? | CHI22\_025-CH84-F2H W | 6th c. AD? | 66.6 | 21.1 | 175 | 205 | 21.2 | 59.4 | 185 | 28.58 | 1.26 | 4.6 | 46.2 | 83.6 | 854 | 26.81 | 262 | 22.1 | 1.50 | 0.12 |
| Chi P9 | Painted 2 | Fabric 5 | DP (3) | APW 16 | AGA 83/006\_10.007 | 6th c. AD? | 64.8 | 21.1 | 132 | 214 | 22.1 | 61.9 | 259 | 27.2 | 1.79 | 37.3 | 6.0 | 84.3 | 988 | 41.26 | 191 | 23.5 | 4.41 | 0.28 |
| Chi P10 | Painted 2 | Fabric 4 | DP (4) | APW 16 | F2H10-09.SE41-2245 | 6th c. AD/7th c.? | 62.5 | 21.2 | 155 | 299 | 23.5 | 67.5 | 271 | 26.91 | 2.61 | 37.6 | 29.7 | 78.4 | 861 | 33.21 | 212 | 23.0 | 4.89 | 0.21 |
| Chi P11 | Painted 2 | Fabric 4 | DP (4) and (2)? | closed vessel | CHI22\_043-CH84-F2H-M2 | 6th c. AD | 64.4 | 20.1 | 141 | 202 | 23.5 | 75.9 | 244 | 25.59 | 1.62 | 39.3 | 13.5 | 72.0 | 1136 | 29.69 | 207 | 20.7 | 2.32 | 0.30 |
| Chi P12 | Painted 2 | Fabric 4 | DP (3) and (4) | open vessel | CHI22\_044\_CH84-F2H-M2 | 6th c. AD | 60.6 | 18.9 | 127 | 187 | 22.1 | 61.8 | 238 | 23.66 | 1.58 | 43.3 | 10.9 | 77.0 | 995 | 27.17 | 141 | 20.6 | 3.24 | 0.25 |
| Chi P13 | Painted 2 | Fabric 4 | DP (3) and (1) | APW 13-16 | CHI22\_045-CH84-F"H-M2 | 6th c. AD | 63.2 | 20.4 | 130 | 300 | 23.0 | 66.0 | 277 | 26.59 | 2.51 | 53.3 | 17.6 | 79.6 | 1117 | 29.13 | 184 | 24.2 | 4.39 | 0.22 |
| Chi P14 | Painted 2 | Fabric 4 | DP (4) | APW 14c | CHI22\_078-F2H12-14-SE248 | 6th/mid 7th c. AD | 74.4 | 21.6 | 170 | 346 | 22.7 | 62.4 | 256 | 26.84 | 1.93 | 47.6 | 29.5 | 81.5 | 861 | 29.59 | 132 | 22.6 | 6.24 | 0.17 |
| Chi P15 | Painted 2 | Fabric 6 | DP (1) and (3)? | open vessel APW 12? | CHI22\_087\_CH84-F2H | 6th c. AD | 64.7 | 21.6 | 155 | 173 | 21.4 | 60.6 | 233 | 24.64 | 1.56 | 34.2 | 64.0 | 86.8 | 840 | 34.96 | 208 | 23.7 | 2.06 | 0.07 |
| Chi P17 | Painted 2 | Fabric 6 | DP (1) | closed vessel | F2H12-18D-414.10.008 | 6th/mid 7th c. AD | 73.7 | 20.9 | 164 | 245 | 20.6 | 62.2 | 232 | 25.89 | 1.68 | 19.5 | 71.5 | 93.4 | 748 | 32.72 | 279 | 23.1 | 3.41 | 0.16 |
| Chi P18 | Painted 2 | Fabric 6 | DP (1) | APW 1 | F2H12-17-SE283.2304 | 6th c. AD | 66.4 | 19.0 | 152 | 214 | 19.7 | 59.1 | 218 | 24.41 | 0.89 | 29.1 | 58.2 | 82.0 | 941 | 33.35 | 180 | 20.1 | 3.67 | 0.18 |
| Chi P19 | Painted 2 | Fabric 5 | DP (1) and (2) birds | closed vessel | CHI\_106-F2H12-11-SE212 | 6th c. AD | 57.3 | 22.2 | 129 | 231 | 22.7 | 66.6 | 245 | 27.06 | 2.19 | 56.5 | 36.7 | 91.0 | 928 | 32.42 | 144 | 26.8 | 3.25 | 0.4 |
| Chi P21 | Painted 2 | Fabric 4 | DP (2)-bird | APW 6-7 | F2H 2012-S17-SE283-2303 | 6th/7th c. AD - 9th c. AD | 66.9 | 19.7 | 172 | 205 | 19.4 | 61.1 | 238 | 25.86 | 1.25 | 43.5 | 17.9 | 90.9 | 825 | 27.17 | 122 | 25.0 | 2.26 | 0.23 |
| Chi P22 | Painted 2 | Fabric 5 | DP (4) and (1) | closed vessel | CHI\_106-F2H12-11-SE212 | 6th c. AD? | 63.6 | 21.2 | 134 | 229 | 24.4 | 64.7 | 242 | 27.21 | 1.48 | 42.5 | 64.0 | 83.0 | 905 | 37.08 | 157 | 21.4 | 2.73 | 0.22 |
| Chi P24 | Painted 2 | Fabric 5 | DP (2) bird | closed vessel | CHI22\_086-CH84-F"H-M1 | 6th c. AD? | 58.4 | 21.8 | 143 | 196 | 22.7 | 64.6 | 268 | 29.74 | 2.57 | 63.5 | 35.9 | 94.1 | 1045 | 30.22 | 200 | 24.9 | 2.52 | 0.29 |
| Chi P26 | Painted 2 | Fabric 4 | DP (4) | closed vessel | CHI22\_120-F2H12.S12.SE238 | 6th c. AD | 53.1 | 21.1 | 163 | 323 | 22.0 | 68.4 | 190 | 28.13 | 2.73 | 51.7 | 34.3 | 85.5 | 1167 | 29.67 | 187 | 25.2 | 5.36 | 0.31 |
| Chi P27 | Painted 2 | Fabric 4 | DP (2) floral? and (4) | open vessel | CHI22\_032-CH84-F2H-W | 6th c. AD? | 71.1 | 19.9 | 144 | 257 | 21.1 | 62.1 | 255 | 26.26 | 3.18 | 35.4 |  | 81.1 | 920 | 29.92 | 155 | 22.7 | 4.30 | 0.29 |
| Chi P28 | Painted 2 | Fabric 5 | DP (3) | APW 10 | CHI22\_051-CH84-F2H-M2/M3 | 6th c. AD? | 70.2 | 21.0 | 150 | 466 | 22.1 | 65.8 | 248 | 26.64 | 1.69 | 35.6 | 35.9 | 87.4 | 923 | 28.36 | 158 | 24.9 | 8.44 | 0.27 |
| Chi P29 | Painted 2 | Fabric 6 | DP (2)-bird | APW 10 | CHI22\_017-F2H M1 | 6th c. AD? | 67.1 | 20.2 | 158 | 170 | 22.8 | 62.3 | 247 | 27.67 | 1.72 | 103.7 | 42.2 | 94.2 | 1018 | 28.42 | 161 | 24.0 | 1.61 | 0.54 |
| Chi P30 | Painted 2 | Fabric 4 | DP (3) or (2) bird? | APW 12 | CHI22\_022-F2H M1 | 6th c. AD? | 81.6 | 19.4 | 145 | 548 | 26.6 | 71.4 | 347 | 25.72 | 1.34 | 79.0 | 77.0 | 94.6 | 977 | 31.71 | 161 | 26.0 | 10.6 | 0.24 |
| Chi P31 | Painted 2 | Fabric 4 | DP (1) and (3) | closed vessel | CHI22\_018-F2H M1 | 6th c. AD? | 60.2 | 19.9 | 148 | 214 | 20.3 | 60.2 | 216 | 25.53 | 1.98 | 90.8 | 20.4 | 85.2 | 856 | 24.92 | 138 | 23.0 | 3.16 | 0.21 |
| Chi P32 | Painted 2 | Fabric 8 | DP 2 (leaves) | closed vessel | CHI22\_TR26-3679 | 6th/7th c. AD - 10th c. AD | 59.5 | 20.9 | 164 | 175 | 22.5 | 58.7 | 280 | 27.73 | 2.86 | 90.9 | 46.1 | 95.5 | 869 | 30.86 | 136 | 22.5 | 2.92 | 0.12 |
| Chi P33 | Painted 2 | Fabric 4 | DP (2) bird and (1) | APW 6-7? | F2H 2012-18A-SE360-3522+3543 | 6th/mid 7th c. AD | 63.9 | 19.9 | 165 | 168 | 21.0 | 60.5 | 245 | 27.46 | 1.83 | 159.8 | 77.8 | 94.7 | 1331 | 27.7 | 139 | 31.8 | 1.62 | 0.27 |
| Chi P34 | Painted 2 | Fabric 4 | DP (4) | APW 9 | CHI22\_TR25-3012.100-100 | 6th/7th c. AD - 10th c. AD | 60.6 | 19.6 | 152 | 193 | 23.6 | 57.2 | 268 | 25.81 | 2.2 | 48.9 | 30.8 | 83.5 | 974 | 26.79 | 122 | 24.2 | 2.31 | 0.08 |
| Chi P35 | Painted 2 | Fabric 4 | DP (1) | APW 1 | CH-F2H M1 | 6th c. AD? | 65.5 | 19.6 | 164 | 218 | 28.0 | 58.8 | 225 | 26.01 | 2.36 | 44.0 | 74.1 | 79.1 | 917 | 27.01 | 120 | 25.1 | 2.85 | 0.20 |
| Chi P36 | Painted 2 | Fabric 4 | DP (3) | closed vessel | F2H 2012-18A-SE360 | 6th/mid 7th c. AD | 76.8 | 20.2 | 171 | 167 | 19.7 | 56.3 | 216 | 27.85 | 2.31 | 24.1 | 31.9 | 98.2 | 747 | 34.27 | 191 | 22.6 | 1.53 | 0.48 |
| Chi P37 | Painted 2 | Fabric 6 | DP (1) | closed vessel | F2H2013-S18-SE360 | 6th/mid 7th c. AD | 60.1 | 20.9 | 135 | 178 | 18.9 | 56.8 | 215 | 26.7 | 2.73 | 49.7 | 33.4 | 89.5 | 1045 | 27.99 | 177 | 22.9 | 1.63 | 0.22 |
| Chi P38 | Painted 2 | Fabric 4 | DP (3) | closed vessel | F2H 212-18A-SE360 | 6th/mid 7th c. AD | 63.6 | 19.8 | 145 | 197 | 22.8 | 60.8 | 289 | 27.34 | 1.61 | 39.3 | 43.7 | 87.6 | 1004 | 30 | 140 | 29.7 | 2.96 | 0.29 |
| BR P5 | Painted 2 | Fabric 8 | DP (1) and (2) | APW 12 | BR10\_Z1\_US2\_225 | 6th c. AD | 67.6 | 20.0 | 132 | 224 | 23.5 | 63.1 | 287 | 31.63 | 1.66 | 33.8 | 100.9 | 93.6 | 895 | 26.83 | 161 | 21.9 | 3.74 | 0.48 |
| BR P6 | Painted 2 | Fabric 4 | DP (1) | APW 4b | BR22.4053.376 | end 6th/7th c. AD | 73.2 | 20.4 | 139 | 499 | 27.3 | 66.5 | 309 | 33.07 | 2.85 | 59.8 | 51.6 | 95.5 | 983 | 29.69 | 138 | 22.8 | 3.7 | 0.69 |
| BR P7 | Painted 2 | Fabric 8 | DP (1) | closed vessel | BR18\_1064\_234 | 6th c. AD? | 56.9 | 18.0 | 136 | 390 | 24.8 | 68.4 | 266 | 26.58 | 2.39 | 46.8 | 64.4 | 85.4 | 1015 | 25.66 | 131 | 21.5 | 6.92 | 0.20 |
| BR P8 | Painted 2 | Fabric 4 | DP (2) | open vessel | BR18\_1064\_234 | 6th c. AD? | 62.4 | 18.6 | 156 | 436 | 24.6 | 69.6 | 265 | 28 | 3.09 | 45.9 | 16.7 | 84.2 | 952 | 27 | 141 | 22.7 | 8.37 | 0.40 |
| BR P9 | Painted 2 | Fabric 4 | DP (1) and (2) bird? | closed vessel | BR10\_F254\_Z2\_315 | 6th c. AD? | 69.0 | 16.7 | 143 | 264 | 20.4 | 59.0 | 202 | 23.45 | 2.3 | 28.1 | 24.9 | 86.7 | 768 | 22.2 | 143 | 18.0 | 4.52 | 0.33 |
| BR P10 | Painted 2 | Fabric 4 | DP (1) | APW 1 | BR10.US6.Z2-314 | 6th c. AD | 63.6 | 19.0 | 173 | 165 | 21.3 | 57.6 | 296 | 29.88 | 4.39 | 46.5 | 95.6 | 97.3 | 903 | 27.72 | 190 | 21.5 | 1.60 | 0.12 |
| BR P11 | Painted 2 | Fabric 4 | DP (2) | APW 6 | BR10\_Z3\_US8\_305 | 6th c. AD | 61.5 | 19.8 | 151 | 464 | 27.6 | 71.4 | 295 | 30.72 | 2.8 | 39.3 | 27.1 | 82.2 | 986 | 37.02 | 166 | 24.2 | 6.93 | 0.31 |
| BR P12 | Painted 2 | Fabric 6 | DP (1) | APW 8 | BR22.4053.374 | 6th c. AD | 66.8 | 20.1 | 173 | 192 | 23.1 | 63.1 | 268 | 31.25 | 2.25 | 39.9 | 53.0 | 92.7 | 1000 | 30.19 | 155 | 26.9 | 2.26 | 0.50 |
| BR P14 | Painted 2 | Fabric 4 | DP (2)?/DP (3)? | closed vessel | BR22.4053. | end 6th/7th c. AD | 68.4 | 17.7 | 144 | 178 | 19.1 | 50.9 | 190 | 23.37 | 1.87 | 41.0 | 17.3 | 83.5 | 799 | 25.88 | 146 | 19.4 | 2.82 | 0.35 |
| BR P15 | Painted 2 | Fabric 4 | DP (1) | closed vessel | BR22-4053B | end 6th/7th c. AD | 62.7 | 15.6 | 144 | 135 | 16.1 | 49.0 | 176 | 22.83 | 2.28 | 40.1 | 35.9 | 88.0 | 789 | 19.96 | 124 | 18.1 | 2.28 | 0.34 |
| BR P16 | Painted 2 | Fabric 4 | DP (3) | closed vessel | BR22-4053C | end 6th/7th c. AD | 68.3 | 17.8 | 150 | 261 | 18.3 | 54.4 | 191 | 24.86 | 2.29 | 31.9 | 22.4 | 91.4 | 770 | 25.43 | 194 | 19.2 | 4.24 | 0.30 |
| BR P17 | Painted 2 | Fabric 4 | DP (1) and (4) | closed vessel | BR22-4053D | end 6th/7th c. AD | 74.8 | 17.4 | 143 | 160 | 19.1 | 52.5 | 209 | 24.32 | 2.65 | 32.8 | 26.2 | 90.1 | 846 | 25.78 | 171 | 19.0 | 2.51 | 0.25 |
| BR P18 | Painted 2 | Fabric 6 | DP (1) | closed vessel | BR22-4053E | end 6th/7th c. AD | 71.1 | 18.6 | 141 | 188 | 21.1 | 54.1 | 170 | 25.79 | 2.43 | 23.5 | 23.9 | 104 | 870 | 40.09 | 357 | 23.1 | 2.36 | 0.44 |
| BR P19 | Painted 2 | Fabric 4 | DP (1) | closed vessel | BR22-4053F | end 6th/7th c. AD | 77.7 | 19.9 | 134 | 211 | 21.0 | 58.5 | 180 | 27 | 2.49 | 39.9 | 18.5 | 103 | 869 | 35.37 | 162 | 27.5 | 2.31 | 0.38 |
| BRP13 | Outlier | Outlier | DP (1) | APW 12 | BR18-3066-99 | 6th c.-9th?c AD | 37.2 | 22.3 | 152 | 258 | 7.8 | 27.2 | 65.2 | 31.6 | 2.80 | 5.60 | 12.7 | 109 | 161 | 42.91 | 378 | 41.9 | 4.65 | 0.17 |
| STOR1 | Storage Jar | not analysed | no DP | no type | BR | modern | 14.4 | 136 | 157 | 16.8 | 50.9 | 166 | 25.3 | 2.40 | 11.4 | 31.7 | 72.2 | 715 | 22.7 | 215 | 19.4 | 2.78 | 0.25 | 2.99 |
| STOR2 | Storage Jar | not analysed | no DP | no type | BR22-4033-348 | end 6th/7th c. AD | 13.7 | 150 | 115 | 15.9 | 25.4 | 156 | 15.7 | 2.48 | 15.5 | 50.2 | 83.4 | 624 | 24.6 | 146 | 16.9 | 2.41 | 0.22 | 2.96 |
| STOR3 | Storage Jar | not analysed | no DP | no type | BR22-4033-349 | end 6th/7th c. AD | 13.8 | 133 | 117 | 15.3 | 45.2 | 148 | 22.1 | 1.95 | 12.1 | 30.3 | 73.1 | 803 | 23.8 | 223 | 15.2 | 2.05 | 0.16 | 2.76 |
| STOR4 | Storage Jar | not analysed | no DP | no type | BR22-4037-360 | end 6th/7th c. AD | 14.7 | 139 | 145 | 13.9 | 46.4 | 139 | 20.5 | 2.09 | 17.3 | 83.0 | 86.0 | 454 | 25.3 | 216 | 26.7 | 2.30 | 0.29 | 4.11 |
| STOR5 | Storage Jar | not analysed | no DP | no type | BR22-4037-361 | end 6th/7th c. AD | 14.5 | 127 | 171 | 22.0 | 47.6 | 166 | 22.0 | 1.93 | 7.3 | 116 | 77.4 | 574 | 24.4 | 198 | 17.0 | 3.32 | 0.20 | 5.11 |
| Modern | Modern sherd | not analysed | no DP | no type | BR-Museum |  | 19.6 | 174 | 174 | 14.9 | 47.2 | 195 | 30.2 | 3.00 | 25.7 | 51.4 | 134 | 769 | 31.7 | 214 | 23.5 | 2.43 | 0.24 | 3.94 |
| ChiTub1 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 17.4 | 118 | 122 | 21.9 | 50.9 | 275 | 21.1 | 2.33 | 155 | 29.8 | 76.4 | 1107 | 24.7 | 167 | 19.8 | 2.69 | 0.40 | 4.07 |
| ChiTub2 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 17.4 | 123 | 303 | 19.3 | 53.0 | 277 | 22.0 | 1.82 | 128 | 38.6 | 63.6 | 1436 | 31.2 | 138 | 18.8 | 6.35 | 0.29 | 3.29 |
| ChiTub3 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 16.8 | 123 | 109 | 17.1 | 48.5 | 243 | 19.5 | 2.12 | 143 | 40.2 | 66.3 | 1461 | 26.0 | 296 | 16.4 | 2.35 | 0.23 | 2.87 |
| ChiTub4 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 19.1 | 139 | 198 | 19.6 | 55.0 | 233 | 24.9 | 2.40 | 53.5 | 39.8 | 86.9 | 946 | 56.3 | 168 | 22.5 | 3.00 | 0.33 | 3.36 |
| ChiTub5 | Tubuli | Fabric 4, greenish | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 16.6 | 116 | 134 | 20.3 | 49.2 | 216 | 20.1 | 1.24 | 67.9 | 39.9 | 73.5 | 1188 | 24.5 | 128 | 15.5 | 1.47 | 0.34 | 2.04 |
| ChiTub6 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 18.0 | 130 | 174 | 19.8 | 50.3 | 215 | 22.5 | 2.14 | 52.1 |  | 79.8 | 1009 | 28.4 | 222 | 18.8 | 2.84 | 0.32 | 3.24 |
| ChiTub7 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 17.0 | 122 | 129 | 21.1 | 49.9 | 283 | 21.4 | 1.82 | 158 | 35.7 | 36.5 | 1504 | 33.0 | 107 | 18.3 | 2.09 | 0.28 | 3.41 |
| ChiTub8 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 16.3 | 131 | 129 | 17.3 | 47.5 | 208 | 21.2 | 2.06 | 63.0 | 54.1 | 59.1 | 1142 | 21.3 | 103 | 15.4 | 2.43 | 0.25 | 3.61 |
| ChiTub9 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 17.0 | 132 | 262 | 20.6 | 49.5 | 293 | 22.1 | 2.54 | 96.9 | 55.5 | 69.5 | 990 | 24.4 | 115 | 47.9 | 4.07 | 0.24 | 2.86 |
| ChiTub10 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 15.5 | 130 | 116 | 34.6 | 48.1 | 285 | 19.1 | 1.88 | 315 | 29.8 | 60.7 | 1652 | 24.3 | 244 | 17.2 | 2.47 | 0.29 | 2.78 |
| BRTub11 | Tubuli | Fabric 5? | no DP | no type | BR 2023 2033 A | destr. cemetry church | 19.1 | 160 | 206 | 18.8 | 53.1 | 212 | 24.5 | 2.74 | 44.1 | 29.7 | 86.8 | 930 | 24.5 | 118 | 20.2 | 4.28 | 0.29 | 3.06 |
| BRTub12 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 16.3 | 144 | 159 | 15.4 | 45.3 | 141 | 23.6 | 2.38 | 50.3 | 20.9 | 91.7 | 1405 | 24.9 | 429 | 18.0 | 3.83 | 0.24 | 3.08 |
| BRTub13 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 16.4 | 138 | 311 | 18.8 | 52.3 | 138 | 23.2 | 1.93 | 51.0 | 11.9 | 102 | 1058 | 23.7 | 139 | 18.2 | 6.06 | 0.33 | 3.15 |
| BRTub14 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 16.5 | 137 | 171 | 15.7 | 42.5 | 138 | 23.3 | 2.57 | 53.1 | 23.2 | 105 | 1029 | 22.9 | 144 | 20.7 | 2.14 | 0.33 | 3.19 |
| BRTub15 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 17.0 | 133 | 203 | 16.1 | 48.9 | 118 | 24.8 | 2.62 | 46.8 | 41.4 | 99.6 | 941 | 20.7 | 118 | 19.1 | 2.80 | 0.20 | 3.02 |
| BRTub16 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 16.6 | 140 | 161 | 19.5 | 47.8 | 149 | 24.4 | 2.22 | 53.7 | 17.7 | 96.5 | 1214 | 26.7 | 133 | 19.2 | 1.26 | 0.33 | 2.99 |
| 005-Chi 1 clay | Clay sample |  |  |  |  |  | 20.2 | 180 | 233 | 19.7 | 54.3 | 255 | 27.0 | 2.64 | 212 | 26.7 | 111 | 835 | 28.2 | 147 | 22.1 | 4.56 | 0.00 | 3.18 |
| 006-Chi 3 clay | Clay sample |  |  |  |  |  | 20.0 | 172 | 175 | 13.4 | 48.9 | 137 | 26.5 | 2.97 | 71.3 | 52.6 | 123 | 389 | 32.5 | 156 | 23.0 | 4.09 | 0.16 | 2.99 |
| 007-Chi 4 clay | Clay sample |  |  |  |  |  | 23.0 | 212 | 208 | 9.34 | 33.4 | 234 | 38.7 | 4.11 | 346 | 5.85 | 61.3 | 330 | 23.0 | 246 | 32.3 | 3.27 | 0.17 | 4.61 |
| 009-Chi 5 clay | Clay sample |  |  |  |  |  | 24.4 | 242 | 251 | 28.7 | 72.9 | 301 | 40.0 | 3.93 | 64.4 | 23.4 | 129 | 240 | 36.5 | 205 | 34.1 | 5.24 | 0.15 | 4.86 |
| 010-Chi theatre clay | Clay sample |  |  |  |  |  | 19.0 | 169 | 373 | 21.1 | 68.4 | 258 | 26.7 | 2.81 | 245 | 30.5 | 107 | 815 | 31.6 | 188 | 25.3 | 8.21 | 19.3 | 4.10 |
| 011-Chi 7 clay | Clay sample |  |  |  |  |  | 22.3 | 196 | 235 | 18.4 | 55.2 | 132 | 31.2 | 3.42 | 11.9 | 30.9 | 128 | 481 | 31.5 | 202 | 26.3 | 4.02 | 0.25 | 3.74 |
| 012-BR 1 clay | Clay sample |  |  |  |  |  | 20.1 | 169 | 112 | 15.0 | 39.8 | 60 | 32.2 | 2.75 | 98.0 | 95.1 | 123 | 499 | 27.0 | 203 | 33.5 | 1.43 | 1.01 | 3.73 |
| 013-BR 2 clay | Clay sample |  |  |  |  |  | 17.7 | 137 | 139 | 27.7 | 29.6 | 66 | 25.3 | 2.61 | 18.2 | 16.2 | 115 | 832 | 31.7 | 265 | 20.4 | 1.45 | 0.26 | 2.86 |
| 014-BR 3 clay | Clay sample |  |  |  |  |  | 18.8 | 178 | 160 | 35.2 | 93.7 | 122 | 26.6 | 2.40 | 20.6 | 38.9 | 113 | 1144 | 29.9 | 144 | 21.3 | 1.71 | 0.16 | 2.96 |
| 015-BR 4 clay | Clay sample |  |  |  |  |  | 19.8 | 174 | 211 | 17.2 | 55.8 | 254 | 29.8 | 2.86 | 71.1 | 40.0 | 140 | 1072 | 27.2 | 146 | 23.6 | 3.84 | 0.41 | 3.56 |
| 016-BR 5 clay | Clay sample |  |  |  |  |  | 19.9 | 171 | 210 | 31.7 | 51.3 | 203 | 29.6 | 2.68 | 67.5 | 32.0 | 130 | 1450 | 26.8 | 133 | 23.9 | 4.20 | 0.17 | 4.00 |
| 017-BR 6 clay | Clay sample |  |  |  |  |  | 18.5 | 163 | 219 | 20.2 | 51.1 | 193 | 25.7 | 3.03 | 255 | 43.3 | 125 | 1011 | 33.9 | 223 | 22.3 | 4.60 | 0.38 | 3.52 |
| 018-BR 7 clay | Clay sample |  |  |  |  |  | 22.0 | 195 | 184 | 25.8 | 61.1 | 230 | 31.9 | 2.85 | 10.8 | 25.9 | 126 | 663 | 29.6 | 177 | 27.0 | 4.36 | 0.20 | 3.69 |
| 019-BR 8 clay | Clay sample |  |  |  |  |  | 22.2 | 185 | 148 | 23.0 | 61.9 | 197 | 32.9 | 3.15 | 125 | 16.4 | 159 | 568 | 27.7 | 188 | 29.9 | 3.30 | 0.42 | 3.99 |
| 020-BR 9 clay | Clay sample |  |  |  |  |  | 24.5 | 208 | 193 | 20.8 | 76.5 | 180 | 35.4 | 3.10 | 113 | 54.0 | 153 | 694 | 45.4 | 181 | 30.8 | 2.53 | 0.37 | 4.36 |
| 021-BR Zagag clay | Clay sample |  |  |  |  |  | 22.0 | 203 | 320 | 19.4 | 54.4 | 165 | 33.2 | 3.75 | 22.7 | 29.1 | 138 | 558 | 28.5 | 158 | 27.1 | 6.78 | 0.38 | 3.98 |
| 022-S1 clay | Clay sample |  |  |  |  |  | 19.6 | 181 | 402 | 5.93 | 35.2 | 53 | 30.7 | 2.70 | 16.8 | 14.6 | 102 | 444 | 20.8 | 165 | 22.9 | 15.0 | 0.18 | 4.61 |
| 023-S2 clay | Clay sample |  |  |  |  |  | 20.6 | 172 | 171 | 8.02 | 36.5 | 183 | 36.3 | 3.53 | 29.1 | 46.7 | 99.8 | 303 | 25.0 | 193 | 29.2 | 4.43 | 0.26 | 4.94 |
| 024-S white clay | Clay sample |  |  |  |  |  | 26.8 | 177 | 171 | 3.51 | 26.1 | 28 | 38.8 | 4.06 | 10.3 |  | 88.8 | 322 | 29.7 | 234 | 39.1 | 2.23 | 15.59 | 6.35 |

***Table S2*** *continued*

| Painted wares | Chemical Group | Fabric | Decoration pattern | APW Type | Context | Date | Sn | Te | Cs | Ba | La | Ce | Pr | Nd | Sm | Eu | Gd | Tb | Dy | Ho | Er |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Chi P1 | Painted 1 | Fabric 6 | DP (1) | APW 13 | F2H 2012-1BA-SE 360-2964 | 6th/mid 7th c. AD | 3.71 |  | 10.2 | 468 | 44.6 | 88.7 | 10.1 | 38.1 | 7.40 | 1.66 | 6.41 | 0.96 | 5.50 | 1.10 | 3.02 |
| Chi P6 | Painted 1 | Fabric 4 | DP (4) | APW 15 | CHI22\_013-F2H M4 | 6th c. AD | 3.38 |  | 10.8 | 506 | 41.8 | 86.1 | 9.40 | 38.9 | 7.15 | 1.56 | 6.83 | 0.96 | 5.85 | 1.16 | 3.40 |
| Chi P23 | Painted 1 | Fabric 5 | DP 2 (bird) | APW 12 | AGA 83/015\_10.003 | 6th c. AD? | 2.80 | 0.40 | 8.9 | 376 | 45.8 | 92.2 | 10.6 | 40.7 | 8.01 | 1.85 | 6.89 | 0.98 | 5.71 | 1.14 | 3.06 |
| Chi P2 | Painted 1 | Fabric 4 | DP (3) | APW 13-16 | CHI22\_039-CH84-F2H-W | 6th c. AD? | 3.66 | 0.45 | 10.8 | 515 | 43.0 | 83.2 | 9.46 | 36.4 | 7.15 | 1.67 | 5.88 | 0.87 | 5.30 | 1.00 | 2.67 |
| Chi P25 | Painted 1 | Fabric 4 | DP (3) | closed vessel | CHI22\_129-F2H12.S12.SE238 | 6th c. AD | 3.75 |  | 10.1 | 449 | 42.6 | 85.4 | 9.62 | 38.6 | 7.63 | 1.65 | 6.80 | 1.02 | 6.71 | 1.37 | 3.72 |
| Chi P16 | Painted 1 | Fabric 4 | DP (1) | closed vessel | F2H12-18D-414.10.008 | 6th/mid 7th c. AD | 28.9 | 2.96 | 6.29 | 771 | 42.4 | 81.9 | 9.82 | 38.1 | 7.83 | 1.83 | 7.47 | 1.31 | 7.70 | 1.63 | 5.25 |
| Chi P20 | Painted 1 | Fabric 5 | DP (4) | APW 10 | CHI22\_TR24\_2013 | 6th/7th c. AD - 9th c. AD | 3.50 |  | 9.02 | 1401 | 45.4 | 94.1 | 11.0 | 42.9 | 9.42 | 1.92 | 7.91 | 1.09 | 6.37 | 1.25 | 3.69 |
| Chi P3 | Painted 2 | Fabric 4 | DP (4) | APW 14a | CHI22\_041-CH84-F2H-R2 | 5th-6th c. AD | 10.7 |  | 10.3 | 377 | 50.5 | 100 | 11.4 | 43.7 | 8.00 | 1.86 | 6.81 | 1.01 | 5.36 | 1.06 | 2.81 |
| Chi P4 | Painted 2 | Fabric 4 | DP (2)-bird | APW 14a | CHI22\_041-CH84-F2H-R2 | 5th-6th c. AD | 3.06 | 0.48 | 9.23 | 550 | 43.6 | 95.0 | 11.5 | 49.9 | 10.8 | 1.53 | 8.20 | 1.07 | 5.98 | 1.13 | 3.00 |
| Chi P5 | Painted 2 | Fabric 8 | DP (4) and (1) | APW 14b | CHI22\_014-F2H M4 | 6th c. AD | 2.83 | 0.77 | 9.65 | 389 | 40.7 | 82.7 | 9.46 | 37.9 | 7.80 | 1.74 | 6.53 | 0.94 | 5.54 | 1.12 | 3.05 |
| Chi P7 | Painted 2 | Fabric 4 | DP (3) | APW 13-16 | CHI22-028-CH84-F2H-W | 6th c. AD? | 2.50 | 0.34 | 6.91 | 315 | 33.0 | 65.3 | 7.37 | 28.1 | 6.07 | 1.26 | 5.36 | 0.79 | 4.41 | 0.92 | 2.43 |
| Chi P8 | Painted 2 | Fabric 7 | DP (1) | open vessel APW 12? | CHI22\_025-CH84-F2H W | 6th c. AD? | 2.10 | 0.43 | 7.24 | 303 | 43.2 | 88.4 | 9.85 | 39.0 | 7.73 | 1.64 | 6.34 | 0.94 | 5.10 | 0.96 | 2.94 |
| Chi P9 | Painted 2 | Fabric 5 | DP (3) | APW 16 | AGA 83/006\_10.007 | 6th c. AD? | 3.17 | 0.38 | 9.26 | 564 | 42.4 | 84.9 | 9.63 | 37.1 | 8.32 | 1.86 | 7.80 | 1.27 | 7.44 | 1.40 | 4.13 |
| Chi P10 | Painted 2 | Fabric 4 | DP (4) | APW 16 | F2H10-09.SE41-2245 | 6th c. AD/7th c.? | 3.23 | 0.34 | 7.68 | 837 | 43.6 | 89.8 | 10.6 | 41.8 | 8.61 | 1.94 | 7.56 | 1.02 | 5.95 | 1.15 | 3.09 |
| Chi P11 | Painted 2 | Fabric 4 | DP (4) and (2)? | closed vessel | CHI22\_043-CH84-F2H-M2 | 6th c. AD | 3.16 |  | 7.79 | 1025 | 43.3 | 84.9 | 9.89 | 39.1 | 7.88 | 1.70 | 6.22 | 0.89 | 4.98 | 0.99 | 2.61 |
| Chi P12 | Painted 2 | Fabric 4 | DP (3) and (4) | open vessel | CHI22\_044\_CH84-F2H-M2 | 6th c. AD | 6.58 | 0.13 | 9.03 | 412 | 40.9 | 83.4 | 9.52 | 37.5 | 7.36 | 1.61 | 6.03 | 0.85 | 4.93 | 0.91 | 2.53 |
| Chi P13 | Painted 2 | Fabric 4 | DP (3) and (1) | APW 13-16 | CHI22\_045-CH84-F"H-M2 | 6th c. AD | 3.31 |  | 9.21 | 466 | 45.9 | 94.7 | 10.4 | 39.9 | 7.99 | 1.74 | 6.63 | 0.91 | 5.57 | 1.03 | 2.70 |
| Chi P14 | Painted 2 | Fabric 4 | DP (4) | APW 14c | CHI22\_078-F2H12-14-SE248 | 6th/mid 7th c. AD | 3.42 |  | 8.84 | 542 | 48.1 | 95.5 | 11 | 42.8 | 8.43 | 1.76 | 6.74 | 0.97 | 5.79 | 1.10 | 2.96 |
| Chi P15 | Painted 2 | Fabric 6 | DP (1) and (3)? | open vessel APW 12? | CHI22\_087\_CH84-F2H | 6th c. AD | 3.17 | 0.63 | 10 | 582 | 63.7 | 120 | 13.5 | 51.9 | 9.68 | 1.78 | 7.48 | 1.15 | 6.60 | 1.35 | 3.68 |
| Chi P17 | Painted 2 | Fabric 6 | DP (1) | closed vessel | F2H12-18D-414.10.008 | 6th/mid 7th c. AD | 12.6 | 1.27 | 10.6 | 447 | 46.7 | 90.3 | 9.98 | 39.9 | 7.90 | 1.69 | 6.41 | 0.98 | 5.95 | 1.12 | 3.42 |
| Chi P18 | Painted 2 | Fabric 6 | DP (1) | APW 1 | F2H12-17-SE283.2304 | 6th c. AD | 2.44 | 0.14 | 8.64 | 287 | 38.4 | 77.0 | 8.72 | 33.6 | 6.79 | 1.41 | 6.14 | 0.99 | 5.71 | 1.11 | 3.50 |
| Chi P19 | Painted 2 | Fabric 5 | DP (1) and (2) birds | closed vessel | CHI\_106-F2H12-11-SE212 | 6th c. AD | 3.63 |  | 9.34 | 1665 | 43.7 | 89.5 | 9.95 | 38.0 | 7.48 | 1.61 | 6.42 | 0.94 | 5.40 | 1.07 | 2.97 |
| Chi P21 | Painted 2 | Fabric 4 | DP (2)-bird | APW 6-7 | F2H 2012-S17-SE283-2303 | 6th/7th c. AD - 9th c. AD | 3.05 | 0.20 | 8.88 | 607 | 40.3 | 81.4 | 9.04 | 34.1 | 6.98 | 1.43 | 5.46 | 0.86 | 4.79 | 0.95 | 2.50 |
| Chi P22 | Painted 2 | Fabric 5 | DP (4) and (1) | closed vessel | CHI\_106-F2H12-11-SE212 | 6th c. AD? | 4.57 |  | 9.39 | 445 | 43.8 | 89.5 | 10.1 | 40.0 | 7.92 | 1.88 | 7.19 | 1.11 | 6.54 | 1.29 | 3.52 |
| Chi P24 | Painted 2 | Fabric 5 | DP (2) bird | closed vessel | CHI22\_086-CH84-F"H-M1 | 6th c. AD? | 3.49 | 1.60 | 10.5 | 697 | 49.3 | 97.1 | 10.9 | 41.6 | 8.63 | 1.95 | 6.84 | 0.93 | 5.61 | 1.05 | 3.09 |
| Chi P26 | Painted 2 | Fabric 4 | DP (4) | closed vessel | CHI22\_120-F2H12.S12.SE238 | 6th c. AD | 3.20 |  | 8.11 | 798 | 46.1 | 96.3 | 10.6 | 41.0 | 8.38 | 1.65 | 6.85 | 0.96 | 5.59 | 1.07 | 3.06 |
| Chi P27 | Painted 2 | Fabric 4 | DP (2) floral? and (4) | open vessel | CHI22\_032-CH84-F2H-W | 6th c. AD? | 2.94 | 1.60 | 8.81 | 520 | 40.5 | 81.9 | 9.28 | 36.3 | 7.35 | 1.72 | 6.29 | 0.85 | 5.32 | 1.08 | 3.04 |
| Chi P28 | Painted 2 | Fabric 5 | DP (3) | APW 10 | CHI22\_051-CH84-F2H-M2/M3 | 6th c. AD? | 3.49 |  | 9.17 | 453 | 44.6 | 88.5 | 9.88 | 38.3 | 7.36 | 1.67 | 6.44 | 0.92 | 5.30 | 1.04 | 2.95 |
| Chi P29 | Painted 2 | Fabric 6 | DP (2)-bird | APW 10 | CHI22\_017-F2H M1 | 6th c. AD? | 3.25 | 0.88 | 9.78 | 681 | 46.2 | 93.9 | 10.5 | 41.5 | 7.78 | 1.74 | 6.46 | 0.89 | 5.26 | 1.04 | 2.90 |
| Chi P30 | Painted 2 | Fabric 4 | DP (3) or (2) bird? | APW 12 | CHI22\_022-F2H M1 | 6th c. AD? | 3.50 |  | 12.2 | 503 | 44.5 | 93.6 | 10.6 | 43.2 | 8.49 | 1.92 | 7.28 | 0.98 | 6.11 | 1.17 | 3.19 |
| Chi P31 | Painted 2 | Fabric 4 | DP (1) and (3) | closed vessel | CHI22\_018-F2H M1 | 6th c. AD? | 2.98 | 0.09 | 8.98 | 628 | 40.1 | 80.8 | 8.89 | 34.6 | 6.81 | 1.48 | 5.58 | 0.81 | 4.59 | 0.93 | 2.35 |
| Chi P32 | Painted 2 | Fabric 8 | DP 2 (leaves) | closed vessel | CHI22\_TR26-3679 | 6th/7th c. AD - 10th c. AD | 3.38 |  | 11.2 | 249 | 46.6 | 94.3 | 10.8 | 43.9 | 9.20 | 2.13 | 7.71 | 1.12 | 6.42 | 1.19 | 2.97 |
| Chi P33 | Painted 2 | Fabric 4 | DP (2) bird and (1) | APW 6-7? | F2H 2012-18A-SE360-3522+3543 | 6th/mid 7th c. AD | 3.97 |  | 10.3 | 942 | 41.9 | 85.0 | 9.47 | 37.4 | 7.54 | 1.65 | 5.87 | 0.81 | 4.89 | 1.02 | 2.75 |
| Chi P34 | Painted 2 | Fabric 4 | DP (4) | APW 9 | CHI22\_TR25-3012.100-100 | 6th/7th c. AD - 10th c. AD | 3.25 | 1.28 | 8.10 | 532 | 42.5 | 83.5 | 9.01 | 36.1 | 7.18 | 1.56 | 6.19 | 0.83 | 5.12 | 0.94 | 2.63 |
| Chi P35 | Painted 2 | Fabric 4 | DP (1) | APW 1 | CH-F2H M1 | 6th c. AD? | 3.22 | 0.90 | 7.81 | 701 | 39.4 | 80.5 | 9.08 | 34.5 | 6.91 | 1.37 | 5.78 | 0.83 | 4.81 | 0.91 | 2.60 |
| Chi P36 | Painted 2 | Fabric 4 | DP (3) | closed vessel | F2H 2012-18A-SE360 | 6th/mid 7th c. AD | 2.87 |  | 11.5 | 339 | 47.8 | 95.8 | 10.8 | 42.7 | 8.10 | 1.65 | 7.23 | 1.01 | 6.20 | 1.24 | 3.41 |
| Chi P37 | Painted 2 | Fabric 6 | DP (1) | closed vessel | F2H2013-S18-SE360 | 6th/mid 7th c. AD | 3.82 |  | 8.68 | 710 | 42.6 | 85.9 | 9.67 | 37.6 | 7.34 | 1.58 | 6.04 | 0.84 | 4.92 | 0.98 | 2.65 |
| Chi P38 | Painted 2 | Fabric 4 | DP (3) | closed vessel | F2H 212-18A-SE360 | 6th/mid 7th c. AD | 4.32 |  | 7.66 | 476 | 51.0 | 91.4 | 10.3 | 38.5 | 7.23 | 1.55 | 6.50 | 0.89 | 5.13 | 0.96 | 2.47 |
| BR P5 | Painted 2 | Fabric 8 | DP (1) and (2) | APW 12 | BR10\_Z1\_US2\_225 | 6th c. AD | 4.17 |  | 10.4 | 718 | 52.4 | 107 | 12.4 | 45.2 | 9.06 | 1.94 | 6.98 | 0.94 | 5.78 | 1.21 | 3.33 |
| BR P6 | Painted 2 | Fabric 4 | DP (1) | APW 4b | BR22.4053.376 | end 6th/7th c. AD | 4.21 |  | 9.96 | 429 | 53.6 | 109 | 12.0 | 49.1 | 9.43 | 2.13 | 7.57 | 1.03 | 6.26 | 1.18 | 3.33 |
| BR P7 | Painted 2 | Fabric 8 | DP (1) | closed vessel | BR18\_1064\_234 | 6th c. AD? | 3.83 |  | 10.0 | 760 | 44.7 | 96.5 | 11.0 | 43.0 | 8.28 | 1.98 | 6.94 | 0.98 | 5.67 | 1.00 | 3.03 |
| BR P8 | Painted 2 | Fabric 4 | DP (2) | open vessel | BR18\_1064\_234 | 6th c. AD? | 3.76 |  | 9.11 | 694 | 45.5 | 95.2 | 10.6 | 41.9 | 8.04 | 1.89 | 6.18 | 0.93 | 5.81 | 1.08 | 3.16 |
| BR P9 | Painted 2 | Fabric 4 | DP (1) and (2) bird? | closed vessel | BR10\_F254\_Z2\_315 | 6th c. AD? | 2.89 | 0.13 | 9.00 | 531 | 44.2 | 92.4 | 10.2 | 40.3 | 7.16 | 1.57 | 5.64 | 0.77 | 4.67 | 0.86 | 2.66 |
| BR P10 | Painted 2 | Fabric 4 | DP (1) | APW 1 | BR10.US6.Z2-314 | 6th c. AD | 4.45 | 2.50 | 10.9 | 654 | 63.6 | 118 | 13.1 | 54.3 | 9.29 | 1.93 | 7.01 | 0.96 | 5.91 | 1.12 | 3.72 |
| BR P11 | Painted 2 | Fabric 4 | DP (2) | APW 6 | BR10\_Z3\_US8\_305 | 6th c. AD | 4.00 | 1.04 | 9.8 | 697 | 48.9 | 99.4 | 11.6 | 46.2 | 9.14 | 2.06 | 8.28 | 1.18 | 7.87 | 1.52 | 4.62 |
| BR P12 | Painted 2 | Fabric 6 | DP (1) | APW 8 | BR22.4053.374 | 6th c. AD | 3.66 | 0.38 | 10.3 | 888 | 52.3 | 107 | 11.9 | 47.0 | 8.97 | 1.78 | 6.97 | 0.97 | 6.21 | 1.19 | 3.48 |
| BR P14 | Painted 2 | Fabric 4 | DP (2)?/DP (3)? | closed vessel | BR22.4053. | end 6th/7th c. AD | 3.12 |  | 8.76 | 516 | 43.1 | 86.6 | 10.0 | 39.3 | 8.29 | 1.91 | 6.61 | 0.96 | 5.69 | 1.03 | 2.84 |
| BR P15 | Painted 2 | Fabric 4 | DP (1) | closed vessel | BR22-4053B | end 6th/7th c. AD | 2.67 | 0.15 | 9.33 | 496 | 43.0 | 88.1 | 9.84 | 37.7 | 6.93 | 1.56 | 5.32 | 0.72 | 4.29 | 0.81 | 2.73 |
| BR P16 | Painted 2 | Fabric 4 | DP (3) | closed vessel | BR22-4053C | end 6th/7th c. AD | 3.14 | 0.04 | 9.07 | 461 | 44.0 | 88.6 | 9.84 | 38.7 | 7.33 | 1.68 | 6.04 | 0.86 | 5.26 | 1.00 | 2.99 |
| BR P17 | Painted 2 | Fabric 4 | DP (1) and (4) | closed vessel | BR22-4053D | end 6th/7th c. AD | 3.01 | 0.16 | 9.66 | 790 | 48.3 | 100 | 11.2 | 44.2 | 8.03 | 1.75 | 6.40 | 0.88 | 5.55 | 1.09 | 3.15 |
| BR P18 | Painted 2 | Fabric 6 | DP (1) | closed vessel | BR22-4053E | end 6th/7th c. AD | 3.45 |  | 11.7 | 683 | 50.4 | 101 | 11.9 | 46.7 | 8.93 | 2.12 | 8.13 | 1.26 | 8.63 | 2.45 | 5.47 |
| BR P19 | Painted 2 | Fabric 4 | DP (1) | closed vessel | BR22-4053F | end 6th/7th c. AD | 3.61 | 0.04 | 11.2 | 668 | 55.5 | 112 | 12.3 | 47.8 | 9.12 | 2.10 | 9.28 | 1.37 | 8.97 | 1.68 | 4.41 |
| BRP13 | Outlier | Outlier | DP (1) | APW 12 | BR18-3066-99 | 6th c.-9th?c AD | 4.69 |  | 8.14 | 389.72 | 72.3 | 150 | 16.8 | 64.7 | 12.6 | 2.40 | 8.78 | 1.25 | 8.70 | 1.66 | 5.44 |
| STOR1 | Storage Jar | not analysed | no DP | no type | BR | modern | 0.16 | 4.06 | 839 | 41.8 | 87.4 | 10.4 | 39.7 | 7.18 | 1.82 | 5.90 | 0.82 | 5.29 | 1.53 | 2.84 | 0.39 |
| STOR2 | Storage Jar | not analysed | no DP | no type | BR22-4033-348 | end 6th/7th c. AD | 0.08 | 4.93 | 405 | 54.3 | 110 | 13.3 | 51.5 | 10.2 | 2.21 | 7.54 | 0.99 | 5.64 | 1.02 | 2.80 | 0.39 |
| STOR3 | Storage Jar | not analysed | no DP | no type | BR22-4033-349 | end 6th/7th c. AD | 0.04 | 5.93 | 1239 | 43.5 | 91.3 | 10.6 | 41.2 | 7.65 | 1.78 | 6.36 | 0.90 | 5.44 | 1.03 | 3.01 | 0.40 |
| STOR4 | Storage Jar | not analysed | no DP | no type | BR22-4037-360 | end 6th/7th c. AD | 0.08 | 4.94 | 694 | 39.7 | 79.9 | 10.0 | 38.4 | 7.34 | 1.76 | 6.29 | 0.92 | 5.82 | 1.11 | 3.29 | 0.46 |
| STOR5 | Storage Jar | not analysed | no DP | no type | BR22-4037-361 | end 6th/7th c. AD | 0.09 | 4.74 | 708 | 36.9 | 75.0 | 8.6 | 34.4 | 6.50 | 1.53 | 5.42 | 0.80 | 5.06 | 0.99 | 2.88 | 0.47 |
| Modern | Modern sherd | not analysed | no DP | no type | BR-Museum |  | 0.18 | 20.8 | 281 | 68.1 | 136 | 15.2 | 58.7 | 11.0 | 2.32 | 8.39 | 1.13 | 7.09 | 1.33 | 3.89 | 0.53 |
| ChiTub1 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 0.15 | 11.9 | 1019 | 35.3 | 74.2 | 9.25 | 32.5 | 6.47 | 1.58 | 5.79 | 0.79 | 5.34 | 0.88 | 2.74 | 0.34 |
| ChiTub2 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 0.23 | 10.6 | 613 | 47.3 | 101 | 11.4 | 41.6 | 8.07 | 1.82 | 7.68 | 1.11 | 6.62 | 1.19 | 3.25 | 0.43 |
| ChiTub3 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 0.27 | 8.86 | 1124 | 39.3 | 79.1 | 9.04 | 33.7 | 6.69 | 1.84 | 6.13 | 0.86 | 5.15 | 0.99 | 2.98 | 0.39 |
| ChiTub4 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 0.20 | 10.4 | 642 | 44.9 | 91.6 | 10.4 | 40.0 | 8.00 | 1.94 | 8.14 | 1.34 | 9.17 | 2.03 | 6.35 | 0.86 |
| ChiTub5 | Tubuli | Fabric 4, greenish | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 0.15 | 10.8 | 747 | 36.9 | 76.6 | 8.57 | 34.5 | 6.83 | 1.59 | 6.21 | 0.87 | 5.22 | 0.96 | 2.95 | 0.37 |
| ChiTub6 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 0.11 | 8.63 | 823 | 49.1 | 104 | 11.9 | 44.0 | 8.66 | 1.75 | 7.32 | 0.98 | 5.80 | 1.10 | 3.16 | 0.43 |
| ChiTub7 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD |  | 4.59 | 1011 | 38.2 | 80.7 | 9.07 | 34.6 | 6.78 | 1.72 | 6.63 | 0.93 | 6.10 | 1.32 | 4.37 | 0.57 |
| ChiTub8 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 0.23 | 6.54 | 1471 | 39.2 | 78.9 | 8.90 | 33.8 | 6.60 | 1.62 | 5.73 | 0.75 | 4.49 | 0.84 | 2.44 | 0.32 |
| ChiTub9 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 0.21 | 9.85 | 874 | 38.7 | 84.2 | 9.24 | 36.6 | 6.86 | 1.70 | 6.34 | 0.85 | 5.13 | 1.0 | 2.90 | 0.40 |
| ChiTub10 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 0.16 | 11.1 | 1208 | 36.5 | 78.4 | 8.74 | 33.4 | 6.73 | 1.61 | 6.14 | 0.82 | 5.04 | 0.94 | 2.69 | 0.38 |
| BRTub11 | Tubuli | Fabric 5? | no DP | no type | BR 2023 2033 A | destr. cemetry church | 0.1 | 10.5 | 663 | 44.2 | 89.9 | 10.4 | 39.3 | 7.84 | 1.72 | 6.78 | 0.86 | 5.19 | 0.94 | 2.73 | 0.36 |
| BRTub12 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 0.11 | 10.9 | 1023 | 43.9 | 91.3 | 10.0 | 38.0 | 7.42 | 1.71 | 6.46 | 0.89 | 5.26 | 0.96 | 2.93 | 0.37 |
| BRTub13 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 0.18 | 13.0 | 538 | 47.8 | 97.2 | 10.8 | 41.1 | 7.75 | 1.77 | 6.73 | 0.87 | 5.16 | 0.92 | 2.74 | 0.37 |
| BRTub14 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church |  | 12.9 | 462 | 42.4 | 87.3 | 9.73 | 36.1 | 6.83 | 1.61 | 6.07 | 0.79 | 4.97 | 0.92 | 2.64 | 0.34 |
| BRTub15 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 0.09 | 11.8 | 1122 | 44.0 | 90.1 | 10.1 | 37.0 | 6.77 | 1.64 | 5.81 | 0.78 | 4.49 | 0.86 | 2.40 | 0.33 |
| BRTub16 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 0.29 | 11.3 | 637 | 45.8 | 92.8 | 10.4 | 39.4 | 7.67 | 1.86 | 6.83 | 0.95 | 5.35 | 1.02 | 3.17 | 0.37 |
| 005-Chi 1 clay | Clay sample |  |  |  |  |  | 0.24 | 23.1 | 449 | 68.9 | 142 | 15.5 | 59.5 | 11.0 | 2.08 | 8.76 | 1.13 | 6.07 | 1.15 | 3.10 | 0.39 |
| 006-Chi 3 clay | Clay sample |  |  |  |  |  |  | 8.66 | 468 | 50.7 | 101 | 11.4 | 44.5 | 8.69 | 1.93 | 7.63 | 1.05 | 6.35 | 1.25 | 3.45 | 0.49 |
| 007-Chi 4 clay | Clay sample |  |  |  |  |  | 0.3 | 24.1 | 279 | 67.5 | 120 | 12.7 | 41.9 | 6.61 | 1.35 | 4.94 | 0.70 | 4.38 | 0.89 | 2.73 | 0.46 |
| 009-Chi 5 clay | Clay sample |  |  |  |  |  |  | 28.4 | 658 | 83.8 | 181 | 20.9 | 82.2 | 16.4 | 3.54 | 13.7 | 1.85 | 9.37 | 1.64 | 4.46 | 0.67 |
| 010-Chi theatre clay | Clay sample |  |  |  |  |  | 0.34 | 16.2 | 585 | 52.1 | 104 | 11.2 | 43.1 | 8.30 | 1.88 | 7.28 | 1.14 | 6.63 | 1.34 | 4.11 | 0.51 |
| 011-Chi 7 clay | Clay sample |  |  |  |  |  |  | 13.6 | 244 | 60.2 | 117 | 13.0 | 48.6 | 9.17 | 1.93 | 7.80 | 1.10 | 6.60 | 1.26 | 3.74 | 0.53 |
| 012-BR 1 clay | Clay sample |  |  |  |  |  | 0.32 | 18.0 | 565 | 58.2 | 112 | 12.5 | 45.4 | 8.64 | 1.82 | 6.85 | 0.93 | 5.27 | 1.20 | 3.05 | 0.41 |
| 013-BR 2 clay | Clay sample |  |  |  |  |  | 0.01 | 13.2 | 436 | 44.2 | 86.7 | 10.2 | 39.3 | 8.92 | 2.36 | 9.65 | 1.24 | 6.76 | 1.24 | 3.34 | 0.46 |
| 014-BR 3 clay | Clay sample |  |  |  |  |  |  | 17.2 | 241 | 52.4 | 105 | 12.1 | 47.5 | 9.45 | 2.06 | 8.05 | 1.11 | 6.17 | 1.17 | 3.15 | 0.46 |
| 015-BR 4 clay | Clay sample |  |  |  |  |  | 0.25 | 29.6 | 277 | 52.3 | 102 | 11.4 | 42.4 | 7.70 | 1.81 | 6.67 | 0.94 | 5.64 | 1.10 | 2.98 | 0.44 |
| 016-BR 5 clay | Clay sample |  |  |  |  |  |  | 27.4 | 276 | 49.4 | 96.0 | 10.8 | 41.5 | 8.00 | 1.69 | 6.71 | 0.90 | 5.18 | 1.05 | 2.92 | 0.39 |
| 017-BR 6 clay | Clay sample |  |  |  |  |  | 0.04 | 49.7 | 491 | 48.7 | 99.3 | 11.3 | 44.2 | 8.37 | 1.96 | 8.12 | 1.17 | 6.72 | 1.37 | 4.02 | 0.61 |
| 018-BR 7 clay | Clay sample |  |  |  |  |  | 0.16 | 14.2 | 214 | 65.7 | 125 | 14.1 | 53.2 | 9.88 | 2.10 | 8.35 | 1.08 | 6.35 | 1.24 | 3.45 | 0.49 |
| 019-BR 8 clay | Clay sample |  |  |  |  |  | 0.10 | 35.6 | 388 | 59.6 | 114 | 12.8 | 48.4 | 9.06 | 1.98 | 7.59 | 1.01 | 5.80 | 1.14 | 3.32 | 0.49 |
| 020-BR 9 clay | Clay sample |  |  |  |  |  |  | 30.2 | 807 | 73.9 | 144 | 15.5 | 59.2 | 11.0 | 2.42 | 10.3 | 1.47 | 9.02 | 2.20 | 5.48 | 0.80 |
| 021-BR Zagag clay | Clay sample |  |  |  |  |  | 0.29 | 13.1 | 207 | 66.9 | 127 | 14.0 | 51.7 | 9.37 | 2.07 | 7.59 | 1.10 | 5.99 | 1.20 | 3.23 | 0.46 |
| 022-S1 clay | Clay sample |  |  |  |  |  | 0.5 | 9.25 | 510 | 67.7 | 137 | 15.5 | 58.0 | 12.1 | 2.84 | 10.9 | 1.37 | 6.55 | 1.04 | 2.68 | 0.37 |
| 023-S2 clay | Clay sample |  |  |  |  |  | 0.37 | 8.44 | 362 | 72.9 | 145 | 15.5 | 55.6 | 9.64 | 1.95 | 7.29 | 0.96 | 5.34 | 1.07 | 3.28 | 0.44 |
| 024-S white clay | Clay sample |  |  |  |  |  | 0.21 | 12.9 | 474 | 92.2 | 182 | 21.5 | 81.4 | 15.3 | 3.10 | 11.7 | 1.45 | 7.84 | 1.40 | 3.70 | 0.56 |

***Table S2*** *continued*

| Painted wares | Chemical Group | Fabric | Decoration pattern | APW Type | Context | Date | Tm | Yb | Lu | Hf | Ta | W | Th | U |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Chi P1 | Painted 1 | Fabric 6 | DP (1) | APW 13 | F2H 2012-1BA-SE 360-2964 | 6th/mid 7th c. AD | 0.46 | 3.04 | 0.41 | 11.80 | 1.37 | 1.21 | 11.6 | 3.24 |
| Chi P6 | Painted 1 | Fabric 4 | DP (4) | APW 15 | CHI22\_013-F2H M4 | 6th c. AD | 0.44 | 2.96 | 0.47 | 10.81 | 1.34 | 1.35 | 11.0 | 3.10 |
| Chi P23 | Painted 1 | Fabric 5 | DP 2 (bird) | APW 12 | AGA 83/015\_10.003 | 6th c. AD? | 0.42 | 2.57 | 0.40 | 9.29 | 1.24 | 1.27 | 11.1 | 2.71 |
| Chi P2 | Painted 1 | Fabric 4 | DP (3) | APW 13-16 | CHI22\_039-CH84-F2H-W | 6th c. AD? | 0.38 | 2.66 | 0.38 | 15.66 | 1.36 | 1.44 | 11.0 | 3.03 |
| Chi P25 | Painted 1 | Fabric 4 | DP (3) | closed vessel | CHI22\_129-F2H12.S12.SE238 | 6th c. AD | 0.58 | 3.32 | 0.55 | 14.10 | 1.56 | 1.31 | 11.7 | 3.34 |
| Chi P16 | Painted 1 | Fabric 4 | DP (1) | closed vessel | F2H12-18D-414.10.008 | 6th/mid 7th c. AD | 0.67 | 5.10 | 0.65 | 16.08 | 1.38 | 1.43 | 11.7 | 4.33 |
| Chi P20 | Painted 1 | Fabric 5 | DP (4) | APW 10 | CHI22\_TR24\_2013 | 6th/7th c. AD - 9th c. AD | 0.51 | 3.66 | 0.57 | 24.53 | 1.63 | 1.56 | 13.9 | 4.10 |
| Chi P3 | Painted 2 | Fabric 4 | DP (4) | APW 14a | CHI22\_041-CH84-F2H-R2 | 5th-6th c. AD | 0.38 | 2.54 | 0.68 | 3.42 | 1.38 | 1.32 | 12.4 | 3.00 |
| Chi P4 | Painted 2 | Fabric 4 | DP (2)-bird | APW 14a | CHI22\_041-CH84-F2H-R2 | 5th-6th c. AD | 0.45 | 3.03 | 0.47 | 7.01 | 1.28 | 0.92 | 11.4 | 3.03 |
| Chi P5 | Painted 2 | Fabric 8 | DP (4) and (1) | APW 14b | CHI22\_014-F2H M4 | 6th c. AD | 0.43 | 2.64 | 0.43 | 3.87 | 1.26 | 1.28 | 10.5 | 2.77 |
| Chi P7 | Painted 2 | Fabric 4 | DP (3) | APW 13-16 | CHI22-028-CH84-F2H-W | 6th c. AD? | 0.35 | 2.12 | 0.33 | 4.42 | 1.16 | 1.17 | 8.8 | 2.32 |
| Chi P8 | Painted 2 | Fabric 7 | DP (1) | open vessel APW 12? | CHI22\_025-CH84-F2H W | 6th c. AD? | 0.38 | 2.32 | 0.37 | 6.12 | 1.28 | 0.77 | 11.9 | 3.03 |
| Chi P9 | Painted 2 | Fabric 5 | DP (3) | APW 16 | AGA 83/006\_10.007 | 6th c. AD? | 0.54 | 3.36 | 0.52 | 5.89 | 1.47 | 1.34 | 11.9 | 3.19 |
| Chi P10 | Painted 2 | Fabric 4 | DP (4) | APW 16 | F2H10-09.SE41-2245 | 6th c. AD/7th c.? | 0.41 | 2.81 | 0.42 | 6.09 | 1.45 | 1.22 | 11.2 | 2.97 |
| Chi P11 | Painted 2 | Fabric 4 | DP (4) and (2)? | closed vessel | CHI22\_043-CH84-F2H-M2 | 6th c. AD | 0.37 | 2.56 | 0.39 | 6.07 | 1.17 | 1.35 | 10.8 | 2.65 |
| Chi P12 | Painted 2 | Fabric 4 | DP (3) and (4) | open vessel | CHI22\_044\_CH84-F2H-M2 | 6th c. AD | 0.38 | 2.31 | 0.35 | 3.88 | 1.26 | 1.19 | 10.3 | 2.57 |
| Chi P13 | Painted 2 | Fabric 4 | DP (3) and (1) | APW 13-16 | CHI22\_045-CH84-F"H-M2 | 6th c. AD | 0.41 | 2.73 | 0.34 | 4.69 | 1.41 | 1.47 | 11.6 | 2.62 |
| Chi P14 | Painted 2 | Fabric 4 | DP (4) | APW 14c | CHI22\_078-F2H12-14-SE248 | 6th/mid 7th c. AD | 0.42 | 2.69 | 0.38 | 3.79 | 1.49 | 1.55 | 12.1 | 2.67 |
| Chi P15 | Painted 2 | Fabric 6 | DP (1) and (3)? | open vessel APW 12? | CHI22\_087\_CH84-F2H | 6th c. AD | 0.51 | 3.35 | 0.56 | 5.67 | 1.52 | 1.24 | 16.7 | 3.50 |
| Chi P17 | Painted 2 | Fabric 6 | DP (1) | closed vessel | F2H12-18D-414.10.008 | 6th/mid 7th c. AD | 0.47 | 3.09 | 0.56 | 7.80 | 1.37 | 1.37 | 11.9 | 2.97 |
| Chi P18 | Painted 2 | Fabric 6 | DP (1) | APW 1 | F2H12-17-SE283.2304 | 6th c. AD | 0.51 | 3.15 | 0.51 | 5.47 | 1.20 | 1.05 | 10.1 | 3.23 |
| Chi P19 | Painted 2 | Fabric 5 | DP (1) and (2) birds | closed vessel | CHI\_106-F2H12-11-SE212 | 6th c. AD | 0.41 | 2.73 | 0.35 | 3.84 | 1.50 | 1.49 | 10.8 | 2.45 |
| Chi P21 | Painted 2 | Fabric 4 | DP (2)-bird | APW 6-7 | F2H 2012-S17-SE283-2303 | 6th/7th c. AD - 9th c. AD | 0.38 | 2.22 | 0.35 | 3.25 | 1.47 | 1.67 | 9.71 | 2.70 |
| Chi P22 | Painted 2 | Fabric 5 | DP (4) and (1) | closed vessel | CHI\_106-F2H12-11-SE212 | 6th c. AD? | 0.46 | 3.14 | 0.45 | 4.01 | 1.23 | 1.40 | 11.2 | 2.69 |
| Chi P24 | Painted 2 | Fabric 5 | DP (2) bird | closed vessel | CHI22\_086-CH84-F"H-M1 | 6th c. AD? | 0.44 | 3.18 | 0.35 | 5.98 | 1.56 | 1.48 | 12.6 | 3.05 |
| Chi P26 | Painted 2 | Fabric 4 | DP (4) | closed vessel | CHI22\_120-F2H12.S12.SE238 | 6th c. AD | 0.41 | 2.84 | 0.43 | 5.85 | 1.42 | 1.30 | 12.0 | 3.08 |
| Chi P27 | Painted 2 | Fabric 4 | DP (2) floral? and (4) | open vessel | CHI22\_032-CH84-F2H-W | 6th c. AD? | 0.48 | 2.61 | 0.45 | 4.70 | 1.40 | 1.36 | 10.5 | 2.78 |
| Chi P28 | Painted 2 | Fabric 5 | DP (3) | APW 10 | CHI22\_051-CH84-F2H-M2/M3 | 6th c. AD? | 0.47 | 2.63 | 0.42 | 4.19 | 1.49 | 1.47 | 10.9 | 3.04 |
| Chi P29 | Painted 2 | Fabric 6 | DP (2)-bird | APW 10 | CHI22\_017-F2H M1 | 6th c. AD? | 0.41 | 2.67 | 0.37 | 4.59 | 1.38 | 1.57 | 12.1 | 3.06 |
| Chi P30 | Painted 2 | Fabric 4 | DP (3) or (2) bird? | APW 12 | CHI22\_022-F2H M1 | 6th c. AD? | 0.47 | 2.64 | 0.39 | 4.32 | 1.54 | 1.68 | 10.8 | 2.78 |
| Chi P31 | Painted 2 | Fabric 4 | DP (1) and (3) | closed vessel | CHI22\_018-F2H M1 | 6th c. AD? | 0.35 | 2.26 | 0.32 | 3.79 | 1.37 | 1.03 | 10.1 | 2.50 |
| Chi P32 | Painted 2 | Fabric 8 | DP 2 (leaves) | closed vessel | CHI22\_TR26-3679 | 6th/7th c. AD - 10th c. AD | 0.42 | 2.57 | 0.37 | 4.18 | 1.45 | 1.74 | 13.0 | 2.73 |
| Chi P33 | Painted 2 | Fabric 4 | DP (2) bird and (1) | APW 6-7? | F2H 2012-18A-SE360-3522+3543 | 6th/mid 7th c. AD | 0.38 | 2.53 | 0.36 | 3.94 | 2.03 | 1.81 | 10.9 | 3.17 |
| Chi P34 | Painted 2 | Fabric 4 | DP (4) | APW 9 | CHI22\_TR25-3012.100-100 | 6th/7th c. AD - 10th c. AD | 0.35 | 2.23 | 0.35 | 3.54 | 1.42 | 1.24 | 10.3 | 2.39 |
| Chi P35 | Painted 2 | Fabric 4 | DP (1) | APW 1 | CH-F2H M1 | 6th c. AD? | 0.34 | 2.17 | 0.35 | 3.01 | 1.52 | 1.32 | 9.40 | 2.62 |
| Chi P36 | Painted 2 | Fabric 4 | DP (3) | closed vessel | F2H 2012-18A-SE360 | 6th/mid 7th c. AD | 0.46 | 2.97 | 0.48 | 5.00 | 1.38 | 1.01 | 11.6 | 3.03 |
| Chi P37 | Painted 2 | Fabric 6 | DP (1) | closed vessel | F2H2013-S18-SE360 | 6th/mid 7th c. AD | 0.38 | 2.37 | 0.39 | 4.80 | 1.20 | 1.19 | 9.70 | 2.49 |
| Chi P38 | Painted 2 | Fabric 4 | DP (3) | closed vessel | F2H 212-18A-SE360 | 6th/mid 7th c. AD | 0.33 | 2.00 | 0.29 | 3.52 | 2.23 | 1.26 | 9.08 | 2.35 |
| BR P5 | Painted 2 | Fabric 8 | DP (1) and (2) | APW 12 | BR10\_Z1\_US2\_225 | 6th c. AD | 0.42 | 2.98 | 0.47 | 4.44 | 1.57 | 1.74 | 13.4 | 3.41 |
| BR P6 | Painted 2 | Fabric 4 | DP (1) | APW 4b | BR22.4053.376 | end 6th/7th c. AD | 0.42 | 2.77 | 0.41 | 4.03 | 1.52 | 1.97 | 12.9 | 3.54 |
| BR P7 | Painted 2 | Fabric 8 | DP (1) | closed vessel | BR18\_1064\_234 | 6th c. AD? | 0.40 | 2.46 | 0.38 | 3.82 | 1.44 | 1.93 | 12.1 | 2.99 |
| BR P8 | Painted 2 | Fabric 4 | DP (2) | open vessel | BR18\_1064\_234 | 6th c. AD? | 0.41 | 2.56 | 0.33 | 4.12 | 1.50 | 1.91 | 11.9 | 3.60 |
| BR P9 | Painted 2 | Fabric 4 | DP (1) and (2) bird? | closed vessel | BR10\_F254\_Z2\_315 | 6th c. AD? | 0.34 | 2.26 | 0.35 | 3.96 | 1.25 | 1.70 | 11.9 | 2.86 |
| BR P10 | Painted 2 | Fabric 4 | DP (1) | APW 1 | BR10.US6.Z2-314 | 6th c. AD | 0.43 | 2.77 | 0.45 | 5.44 | 1.71 | 1.81 | 14.6 | 3.77 |
| BR P11 | Painted 2 | Fabric 4 | DP (2) | APW 6 | BR10\_Z3\_US8\_305 | 6th c. AD | 0.59 | 3.08 | 0.48 | 5.47 | 1.64 | 1.78 | 14.7 | 4.26 |
| BR P12 | Painted 2 | Fabric 6 | DP (1) | APW 8 | BR22.4053.374 | 6th c. AD | 0.47 | 3.24 | 0.49 | 4.20 | 1.87 | 2.65 | 13.9 | 4.39 |
| BR P14 | Painted 2 | Fabric 4 | DP (2)?/DP (3)? | closed vessel | BR22.4053. | end 6th/7th c. AD | 0.37 | 2.53 | 0.38 | 4.09 | 1.35 | 1.64 | 12.3 | 3.20 |
| BR P15 | Painted 2 | Fabric 4 | DP (1) | closed vessel | BR22-4053B | end 6th/7th c. AD | 0.30 | 2.06 | 0.31 | 3.17 | 1.14 | 1.52 | 10.4 | 3.37 |
| BR P16 | Painted 2 | Fabric 4 | DP (3) | closed vessel | BR22-4053C | end 6th/7th c. AD | 0.38 | 2.57 | 0.42 | 6.17 | 1.26 | 1.58 | 11.9 | 3.81 |
| BR P17 | Painted 2 | Fabric 4 | DP (1) and (4) | closed vessel | BR22-4053D | end 6th/7th c. AD | 0.41 | 2.87 | 0.42 | 4.98 | 1.24 | 1.61 | 13.1 | 4.10 |
| BR P18 | Painted 2 | Fabric 6 | DP (1) | closed vessel | BR22-4053E | end 6th/7th c. AD | 0.69 | 4.90 | 0.74 | 12.6 | 1.76 | 2.05 | 15.1 | 5.08 |
| BR P19 | Painted 2 | Fabric 4 | DP (1) | closed vessel | BR22-4053F | end 6th/7th c. AD | 0.57 | 3.67 | 0.54 | 5.17 | 2.06 | 2.20 | 15.7 | 4.18 |
| BRP13 | Outlier | Outlier | DP (1) | APW 12 | BR18-3066-99 | 6th c.-9th?c AD | 0.71 | 5.24 | 0.75 | 9.72 | 2.73 | 6.56 | 19.4 | 4.59 |
| STOR1 | Storage Jar | not analysed | no DP | no type | BR | modern | 2.65 | 0.37 | 6.76 | 1.32 | 1.46 | 11.8 | 3.62 | 3.62 |
| STOR2 | Storage Jar | not analysed | no DP | no type | BR22-4033-348 | end 6th/7th c. AD | 2.81 | 0.38 | 4.54 | 1.22 | 1.59 | 13.4 | 3.60 | 3.60 |
| STOR3 | Storage Jar | not analysed | no DP | no type | BR22-4033-349 | end 6th/7th c. AD | 2.61 | 0.39 | 6.38 | 1.08 | 1.39 | 11.6 | 3.70 | 3.70 |
| STOR4 | Storage Jar | not analysed | no DP | no type | BR22-4037-360 | end 6th/7th c. AD | 3.21 | 0.46 | 7.20 | 2.25 | 2.47 | 12.4 | 3.35 | 3.35 |
| STOR5 | Storage Jar | not analysed | no DP | no type | BR22-4037-361 | end 6th/7th c. AD | 2.86 | 0.39 | 5.81 | 1.24 | 1.35 | 10.9 | 3.55 | 3.55 |
| Modern | Modern sherd | not analysed | no DP | no type | BR-Museum |  | 3.55 | 0.56 | 6.50 | 1.63 | 1.75 | 19.2 | 5.09 | 5.09 |
| ChiTub1 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 2.25 | 0.31 | 4.85 | 1.41 | 1.61 | 10.9 | 3.49 | 3.49 |
| ChiTub2 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 2.90 | 0.38 | 3.91 | 1.24 | 1.35 | 12.2 | 2.88 | 2.88 |
| ChiTub3 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 2.72 | 0.38 | 8.72 | 1.02 | 1.20 | 10.5 | 3.23 | 3.23 |
| ChiTub4 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 6.41 | 0.84 | 4.73 | 1.49 | 1.71 | 13.1 | 3.86 | 3.86 |
| ChiTub5 | Tubuli | Fabric 4, greenish | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 2.79 | 0.39 | 4.54 | 1.13 | 1.04 | 11.0 | 3.03 | 3.03 |
| ChiTub6 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 3.06 | 0.44 | 6.39 | 1.31 | 1.31 | 17.2 | 3.62 | 3.62 |
| ChiTub7 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 3.63 | 0.51 | 3.24 | 1.22 | 1.50 | 11.8 | 2.85 | 2.85 |
| ChiTub8 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 2.21 | 0.31 | 3.16 | 1.03 | 1.34 | 10.5 | 3.21 | 3.21 |
| ChiTub9 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 2.63 | 0.38 | 3.41 | 3.44 | 1.28 | 12.3 | 3.07 | 3.07 |
| ChiTub10 | Tubuli | Fabric 4 | no DP | no type | Chi 2012 F2H 18D US 481 | end 6th/mid 7th c. AD | 2.57 | 0.37 | 7.40 | 1.13 | 1.36 | 10.7 | 3.17 | 3.17 |
| BRTub11 | Tubuli | Fabric 5? | no DP | no type | BR 2023 2033 A | destr. cemetry church | 2.45 | 0.36 | 3.47 | 1.40 | 1.54 | 13.1 | 5.22 | 5.22 |
| BRTub12 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 2.74 | 0.40 | 10.7 | 1.32 | 1.77 | 12.6 | 4.30 | 4.30 |
| BRTub13 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 2.46 | 0.35 | 4.05 | 1.21 | 1.53 | 13.5 | 4.07 | 4.07 |
| BRTub14 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 2.34 | 0.35 | 4.52 | 1.41 | 1.53 | 12.0 | 3.86 | 3.86 |
| BRTub15 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 2.22 | 0.31 | 3.41 | 1.28 | 1.61 | 12.1 | 3.42 | 3.42 |
| BRTub16 | Tubuli | Fabric 4 | no DP | no type | BR 2023 2033 A | destr. cemetry church | 2.58 | 0.34 | 3.69 | 1.36 | 1.64 | 12.6 | 3.71 | 3.71 |
| 005-Chi 1 clay | Clay sample |  |  |  |  |  | 2.60 | 0.40 | 4.26 | 1.38 | 1.68 | 18.8 | 3.97 | 3.97 |
| 006-Chi 3 clay | Clay sample |  |  |  |  |  | 3.34 | 0.50 | 4.22 | 1.51 | 1.78 | 14.7 | 7.10 | 7.10 |
| 007-Chi 4 clay | Clay sample |  |  |  |  |  | 2.88 | 0.48 | 7.41 | 2.16 | 2.52 | 21.2 | 2.71 | 2.71 |
| 009-Chi 5 clay | Clay sample |  |  |  |  |  | 3.93 | 0.62 | 5.93 | 2.20 | 2.37 | 22.3 | 5.12 | 5.12 |
| 010-Chi theatre clay | Clay sample |  |  |  |  |  | 3.08 | 0.45 | 5.35 | 1.67 | 1.99 | 14.0 | 3.25 | 3.25 |
| 011-Chi 7 clay | Clay sample |  |  |  |  |  | 3.47 | 0.54 | 6.01 | 1.81 | 1.84 | 16.9 | 5.56 | 5.56 |
| 012-BR 1 clay | Clay sample |  |  |  |  |  | 2.78 | 0.41 | 5.72 | 2.03 | 2.45 | 16.3 | 5.61 | 5.61 |
| 013-BR 2 clay | Clay sample |  |  |  |  |  | 3.11 | 0.45 | 7.07 | 1.40 | 1.57 | 14.7 | 5.88 | 5.88 |
| 014-BR 3 clay | Clay sample |  |  |  |  |  | 2.86 | 0.42 | 4.19 | 1.40 | 1.67 | 14.3 | 6.83 | 6.83 |
| 015-BR 4 clay | Clay sample |  |  |  |  |  | 2.95 | 0.42 | 4.38 | 1.58 | 2.13 | 13.7 | 4.38 | 4.38 |
| 016-BR 5 clay | Clay sample |  |  |  |  |  | 2.66 | 0.37 | 3.77 | 1.64 | 2.16 | 13.1 | 4.01 | 4.01 |
| 017-BR 6 clay | Clay sample |  |  |  |  |  | 3.77 | 0.57 | 6.94 | 1.53 | 4.92 | 15.9 | 4.70 | 4.70 |
| 018-BR 7 clay | Clay sample |  |  |  |  |  | 3.14 | 0.48 | 5.40 | 1.90 | 1.91 | 16.2 | 4.98 | 4.98 |
| 019-BR 8 clay | Clay sample |  |  |  |  |  | 3.22 | 0.46 | 5.52 | 2.03 | 2.14 | 17.7 | 4.49 | 4.49 |
| 020-BR 9 clay | Clay sample |  |  |  |  |  | 4.88 | 0.73 | 5.09 | 2.03 | 2.68 | 19.5 | 4.11 | 4.11 |
| 021-BR Zagag clay | Clay sample |  |  |  |  |  | 3.00 | 0.47 | 4.82 | 1.90 | 2.33 | 16.6 | 4.91 | 4.91 |
| 022-S1 clay | Clay sample |  |  |  |  |  | 2.47 | 0.35 | 5.01 | 1.62 | 2.13 | 17.9 | 5.79 | 5.79 |
| 023-S2 clay | Clay sample |  |  |  |  |  | 3.04 | 0.47 | 6.15 | 2.19 | 2.34 | 20.9 | 4.01 | 4.01 |
| 024-S white clay | Clay sample |  |  |  |  |  | 3.72 | 0.52 | 7.43 | 2.83 | 3.12 | 25.2 | 4.84 | 4.84 |

**Table S3**: Accuracy and precision for measurements of glass standard NIST612 measured by LA-ICP-MS. SD = standard deviation, RSD = relative standard deviation. NIST 612 reference values from: Jochum KP, Weis U, Stoll B, Kuzmin D, Yang Q, Raczek I, et al 2011. Determination of reference values for NIST SRM 610–617 glasses following ISO guidelines. Geostandards and Geoanalytical Research 35(4), 397-429.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Na2O | Al2O3 | SiO2 | CaO | Ag | As2O3 | Au | B2O3 | BaO | Bi2O3 | CeO2 | CoO | Cr2O3 | Cs2O | CuO |
| NIST 612 (n=10) | 13.9 | 2.15 | 71.4 | 12.2 | 22.0 | 43.3 | 4.62 | 110 | 43.3 | 36.9 | 47.7 | 43.2 | 52.5 | 44.7 | 45.5 |
| Accepted\* | 13.7 | 2.03 | 72.1 | 11.9 | 22.0 | 47.1 | 4.77 | 110 | 43.9 | 33.7 | 47.2 | 45.1 | 53.2 | 45.3 | 47.3 |
| Absolute error | 0.25 | 0.12 | -0.72 | 0.26 | -0.01 | -3.88 | -0.15 | -0.85 | -0.55 | 3.25 | 0.56 | -1.89 | -0.69 | -0.59 | -1.80 |
| **Relative error %** | **1.80** | **5.96** | **-0.99** | **2.19** | **-0.04** | **-8.22** | **-3.07** | **-0.77** | **-1.25** | **9.64** | **1.18** | **-4.18** | **-1.29** | **-1.30** | **-3.80** |
| sd | 0.38 | 0.05 | 0.95 | 0.59 | 1.40 | 0.84 | 0.40 | 13.80 | 2.88 | 3.52 | 3.38 | 1.40 | 1.73 | 3.34 | 1.62 |
| RSD | 2.74 | 2.47 | 1.34 | 4.84 | 6.37 | 1.95 | 8.76 | 12.59 | 6.64 | 9.54 | 7.08 | 3.23 | 3.29 | 7.48 | 3.56 |

**Table S3 continued**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Dy2O3 | Er2O3 | Eu2O3 | Fe2O3 | GaO | Gd2O3 | GeO2 | HfO2 | Ho2O3 | In2O3 | K2O | La2O3 | Li2O | Lu2O3 | MgO |
| NIST 612 (n=10) | 38.6 | 44.9 | 41.8 | 70.7 | 44.2 | 44.6 | 55.5 | 44.9 | 44.6 | 44.7 | 71.2 | 42.8 | 88.0 | 42.5 | 93.6 |
| Accepted\* | 37.2 | 43.5 | 41.2 | 72.9 | 45.4 | 43.0 | 52.0 | 43.3 | 43.9 | 47.0 | 75.0 | 42.2 | 86.5 | 42.1 | 113 |
| Absolute error | 1.30 | 1.49 | 0.60 | -2.22 | -1.20 | 1.57 | 3.51 | 1.65 | 0.73 | -2.34 | -3.85 | 0.54 | 1.49 | 0.40 | -19.12 |
| **Relative error %** | **3.50** | **3.43** | **1.46** | **-3.05** | **-2.63** | **3.66** | **6.76** | **3.80** | **1.66** | **-4.98** | **-5.13** | **1.29** | **1.73** | **0.96** | **-16.96** |
| sd | 2.95 | 3.48 | 3.25 | 2.80 | 2.17 | 3.57 | 2.05 | 3.51 | 3.57 | 3.54 | 7.09 | 3.04 | 5.86 | 3.47 | 2.09 |
| RSD | 7.66 | 7.75 | 7.77 | 3.96 | 4.91 | 8.01 | 3.70 | 7.81 | 8.00 | 7.92 | 9.96 | 7.12 | 6.66 | 8.17 | 2.23 |

**Table S3 continued**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | MnO | MoO | Nb2O3 | Nd2O3 | NiO | P2O5 | PbO | PrO2 | Rb2O | SO3 | Sb2O3 | Sc2O3 | Sm2O3 | SnO2 | SrO |
| NIST 612 (n=10) | 48.7 | 42.7 | 48.5 | 41.8 | 49.6 | 71.2 | 37.4 | 46.9 | 34.7 | 956 | 42.5 | 60.3 | 44.5 | 51.3 | 95.0 |
| Accepted\* | 50.0 | 43.6 | 48.9 | 41.4 | 49.4 | 107 | 41.5 | 46.5 | 34.3 | 941 | 41.5 | 61.2 | 43.7 | 49.0 | 92.7 |
| Absolute error | -1.24 | -0.98 | -0.47 | 0.36 | 0.26 | -35.56 | -4.10 | 0.40 | 0.41 | 14.70 | 0.95 | -0.91 | 0.82 | 2.28 | 2.30 |
| **Relative error %** | **-2.49** | **-2.25** | **-0.96** | **0.86** | **0.53** | **-33.30** | **-9.87** | **0.87** | **1.19** | **1.56** | **2.28** | **-1.48** | **1.88** | **4.65** | **2.48** |
| sd | 1.61 | 2.67 | 2.67 | 3.20 | 1.54 | 25.09 | 2.64 | 3.38 | 1.93 | 294.19 | 2.40 | 2.13 | 3.31 | 3.87 | 5.44 |
| RSD | 3.31 | 6.27 | 5.51 | 7.66 | 3.09 | 35.22 | 7.05 | 7.22 | 5.57 | 30.77 | 5.65 | 3.53 | 7.42 | 7.54 | 5.72 |

**Table S3 continued**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ta2O3 | Tb2O3 | ThO2 | TiO2 | Tm2O3 | UO2 | V2O5 | WO | Y2O3 | Yb2O3 | ZnO | ZrO2 |
| NIST 612 (n=10) | 42.9 | 43.6 | 43.7 | 69.0 | 43.3 | 43.0 | 68.2 | 41.5 | 49.5 | 44.6 | 44.9 | 52.2 |
| Accepted\* | 42.6 | 43.3 | 43.0 | 73.4 | 42.0 | 42.4 | 69.3 | 41.3 | 48.6 | 44.6 | 48.7 | 51.2 |
| Absolute error | 0.27 | 0.29 | 0.65 | -4.45 | 1.29 | 0.57 | -1.06 | 0.20 | 0.89 | -0.03 | -3.72 | 1.00 |
| **Relative error %** | **0.64** | **0.68** | **1.52** | **-6.06** | **3.06** | **1.34** | **-1.52** | **0.48** | **1.84** | **-0.07** | **-7.65** | **1.96** |
| sd | 3.75 | 3.44 | 5.18 | 2.70 | 3.42 | 5.38 | 2.09 | 3.59 | 2.46 | 3.66 | 1.36 | 2.93 |
| RSD | 8.76 | 7.90 | 11.86 | 3.91 | 7.89 | 12.52 | 3.06 | 8.66 | 4.96 | 8.22 | 3.03 | 5.62 |

1. Samples were initially analysed at 20% laser power and subsequently at 40% power due to an issue with the gas flow. Data quality was not affected by the change in laser power and the two sets were comparable. [↑](#footnote-ref-1)